



"Please note that these files may not be up to date. However, the questions will help you understand the exam format and typical question patterns."

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Question: 1

A developer has created an application based on customer requirements. The customer needs to run the application with the minimum downtime. Which design approach regarding high-availability applications, Recovery Time Objective, and Recovery Point Objective must be taken?

- A. Active/passive results in lower RTO and RPO. For RPO, data synchronization between the two data centers must be timely to allow seamless request flow.
- B. Active/passive results in lower RTO and RPO. For RPO, data synchronization between the two data centers does not need to be timely to allow seamless request flow.
- C. Active/active results in lower RTO and RPO. For RPO, data synchronization between the two data centers does not need to be timely to allow seamless request flow.
- D. Active/active results in lower RTO and RPO. For RPO, data synchronization between the two data centers must be timely to allow seamless request flow.

Answer: A

Explanation:

Question: 2

DRAG DROP

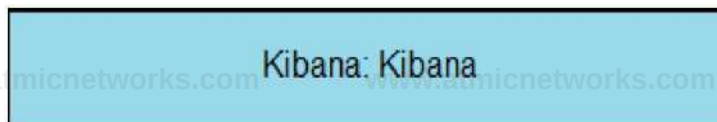
An application is being built to collect and display telemetry streaming data

a. Drag and drop the elements of this stack from the left onto the correct element functions on the right.

IOS-XE Device: IOS-XE Device	visualization platform
Elasticsearch: Elasticsearch	data collector
Kibana: Kibana	data generator
Python Application: Python Application	datastore

Answer:

Explanation:



Python Application: Python Application

IOS-XE Device: IOS-XE Device

Elasticsearch: Elasticsearch

Question: 3

A cloud native project is being worked on in which all source code and dependencies are written in Python, Ruby, and/or JavaScript. A change in code triggers a notification to the CI/CD tool to run the CI/CD pipeline.

Which step should be omitted from the pipeline?

- A. Deploy the code to one or more environments, such as staging and/or production.
- B. Build one or more containers that package up code and all its dependencies.
- C. Compile code.
- D. Run automated tests to validate the correctness.

Answer: C

Explanation:

Question: 4

Which two statements are considered best practices according to the 12-factor app methodology for application design? (Choose two.)

- A. Application code writes its event stream to stdout.
- B. Application log streams are archived in multiple replicated databases.
- C. Application log streams are sent to log indexing and analysis systems.
- D. Application code writes its event stream to specific log files.
- E. Log files are aggregated into a single file on individual nodes.

Answer: AC

Explanation:

Question: 5

An organization manages a large cloud-deployed application that employs a microservices architecture. No notable issues occur with downtime because the services of this application are redundantly deployed over three or more data center regions. However, several times a week reports are received about application slowness. The container orchestration logs show faults in a variety of containers that cause them to fail and then spin up brand new.

Which action must be taken to improve the resiliency design of the application while maintaining current scale?

- A. Update the base image of the containers.
- B. Test the execution of the application with another cloud services platform.
- C. Increase the number of containers running per service.
- D. Add consistent "try/catch(exception)" clauses to the code.

Answer: A

Explanation:

Question: 6

How should a web application be designed to work on a platform where up to 1000 requests per second can be served?

- A. Use algorithms like random early detection to deny excessive requests.
- B. Set a per-user limit (for example, 5 requests/minute/user) and deny the requests from the users who have reached the limit.
- C. Only 1000 user connections are allowed; further connections are denied so that all connected users can be served.
- D. All requests are saved and processed one by one so that all users can be served eventually.

Answer: B

Explanation:

Question: 7

An organization manages a large cloud-deployed application that employs a microservices architecture across multiple data centers. Reports have received about application slowness. The container orchestration logs show that faults have been raised in a variety of containers that caused them to fail and then spin up brand new instances.

Which two actions can improve the design of the application to identify the faults? (Choose two.)

- A. Automatically pull out the container that fails the most over a time period.
- B. Implement a tagging methodology that follows the application execution from service to service.
- C. Add logging on exception and provide immediate notification.
- D. Do a write to the datastore every time there is an application failure.
- E. Implement an SNMP logging system with alerts in case a network link is slow.

Answer: BC

Explanation:

Question: 8

Which two situations are flagged by software tools designed for dependency checking in continuous integration environments, such as OWASP? (Choose two.)

- A. publicly disclosed vulnerabilities related to the included dependencies
- B. mismatches in coding styles and conventions in the included dependencies
- C. incompatible licenses in the included dependencies
- D. test case failures introduced by bugs in the included dependencies
- E. buffer overflows to occur as the result of a combination of the included dependencies

Answer: AE

Explanation:

Question: 9

A network operations team is using the cloud to automate some of their managed customer and branch locations. They require that all of their tooling be ephemeral by design and that the entire automation environment can be recreated without manual commands. Automation code and configuration state will be stored in git for change control and versioning. The engineering high-level plan is to use VMs in a cloud- provider environment then configure open source tooling onto these VMs to poll, test, and configure the remote devices, as well as deploy the tooling itself.

Which configuration management and/or automation tooling is needed for this solution?

- A. Ansible
- B. Ansible and Terraform
- C. NSO
- D. Terraform
- E. Ansible and NSO

Answer: B

Explanation:

Question: 10

DRAG DROP

Drag and drop the git commands from the left into the correct order on the right to create a feature

branch from the master and then incorporate that feature branch into the master.

git branch -d feature	step 1
git checkout -b feature master	step 2
git checkout master	step 3
git push origin master	step 4
git merge --no-ff feature	step 5

Answer:

Explanation:

git checkout -b feature master
git checkout master
git merge --no-ff feature
git branch -d feature
git push origin master

Question: 11

An application is hosted on Google Kubernetes Engine. A new JavaScript module is created to work with the existing application. Which task is mandatory to make the code ready to deploy?

- A. Create a Dockerfile for the code base.
- B. Rewrite the code in Python.
- C. Build a wrapper for the code to "containerize" it.

D. Rebase the code from the upstream git repo.

Answer: A

Explanation:

Question: 12

DRAG DROP

Drag and drop the steps from the left into the correct sequence on the right to describe how to use Git to maintain the current HEAD and revert back to a previous commit, while undoing all intermediate commits.

git commit -m 'Revert to 56e05fcd commit'	step 1
git reset -soft HEAD@{1}	step 2
git log	step 3
git reset -hard 56e05fcd	step 4
git status	step 5

Answer:

Explanation:

git status

git log

git reset -soft HEAD@{1}

git reset -hard 56e05fced

git commit -m "Revert to 56e05fced commit"

Question: 13

Which database type should be used with highly structured data and provides support for ACID transactions?

- A. time series
- B. document
- C. graph
- D. relational

Answer: D

Explanation:

Question: 14

Where should distributed load balancing occur in a horizontally scalable architecture?

- A. firewall-side/policy load balancing
- B. network-side/central load balancing
- C. service-side/remote load balancing
- D. client-side/local load balancing

Answer: D

Explanation:

Question: 15

Which two statements about a stateless application are true? (Choose two.)

- A. Different requests can be processed by different servers.
- B. Requests are based only on information relayed with each request.
- C. Information about earlier requests must be kept and must be accessible.
- D. The same server must be used to process all requests that are linked to the same state.
- E. No state information can be shared across servers.

Answer: AB

Explanation:

Question: 16

Which statement about microservices architecture is true?

- A. Applications are written in a single unit.
- B. It is a complex application composed of multiple independent parts.
- C. It is often a challenge to scale individual parts.
- D. A single faulty service can bring the whole application down.

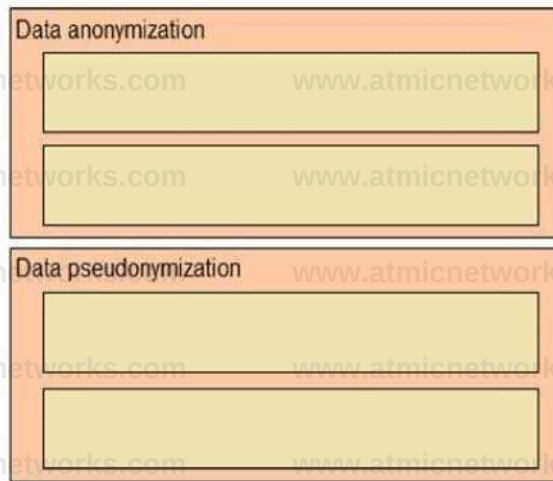
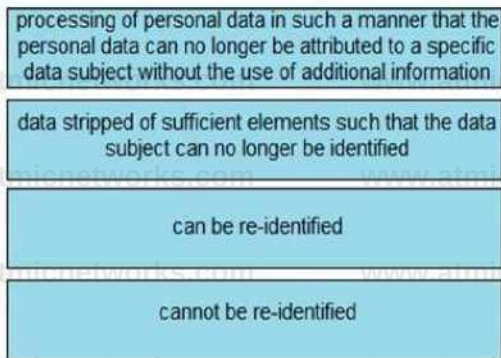
Answer: B

Explanation:

Question: 17

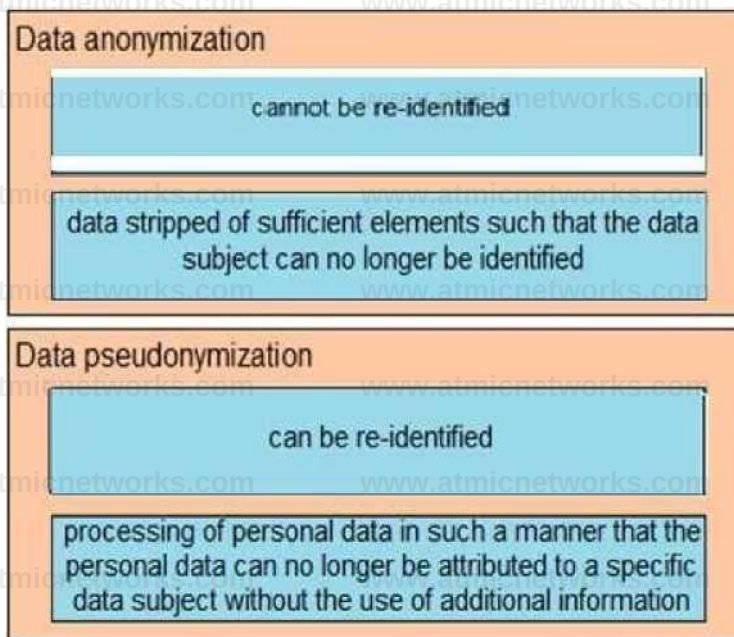
DRAG DROP

Drag and drop the characteristics from the left onto the correct data processing techniques on the right, in the context of GDPR.



Answer:

Explanation:



Question: 18

Which two data encoding techniques are supported by gRPC? (Choose two.)

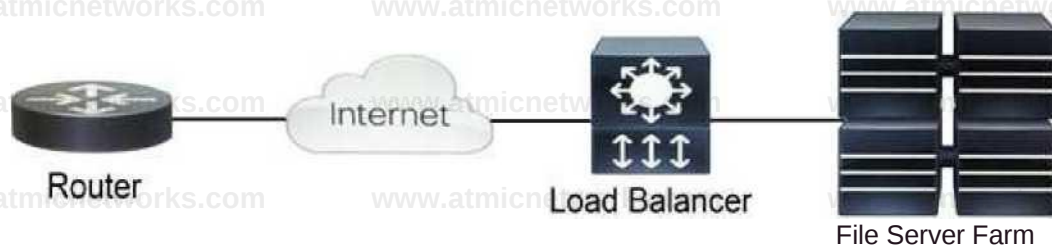
- A. XML
- B. JSON
- C. ASCII
- D. ProtoBuf
- E. YAML

Answer: BD

Explanation:

Question: 19

Refer to the exhibit.



Which two functions are performed by the load balancer when it handles traffic originating from the Internet destined to an application hosted on the file server farm? (Choose two.)

- A. Terminate the TLS over the UDP connection from the router and originate an HTTPS connection to the selected server.
- B. Terminate the TLS over the UDP connection from the router and originate an HTTP connection to the selected server.
- C. Terminate the TLS over the TCP connection from the router and originate an HTTP connection to the selected server.
- D. Terminate the TLS over the TCP connection from the router and originate an HTTPS connection to the selected server.
- E. Terminate the TLS over the SCTP connection from the router and originate an HTTPS connection to the selected server.

Answer: CD

Explanation:

Question: 20

Which transport protocol is used by gNMI?

- A. HTTP/2
- B. HTTP 1.1
- C. SSH
- D. MQTT

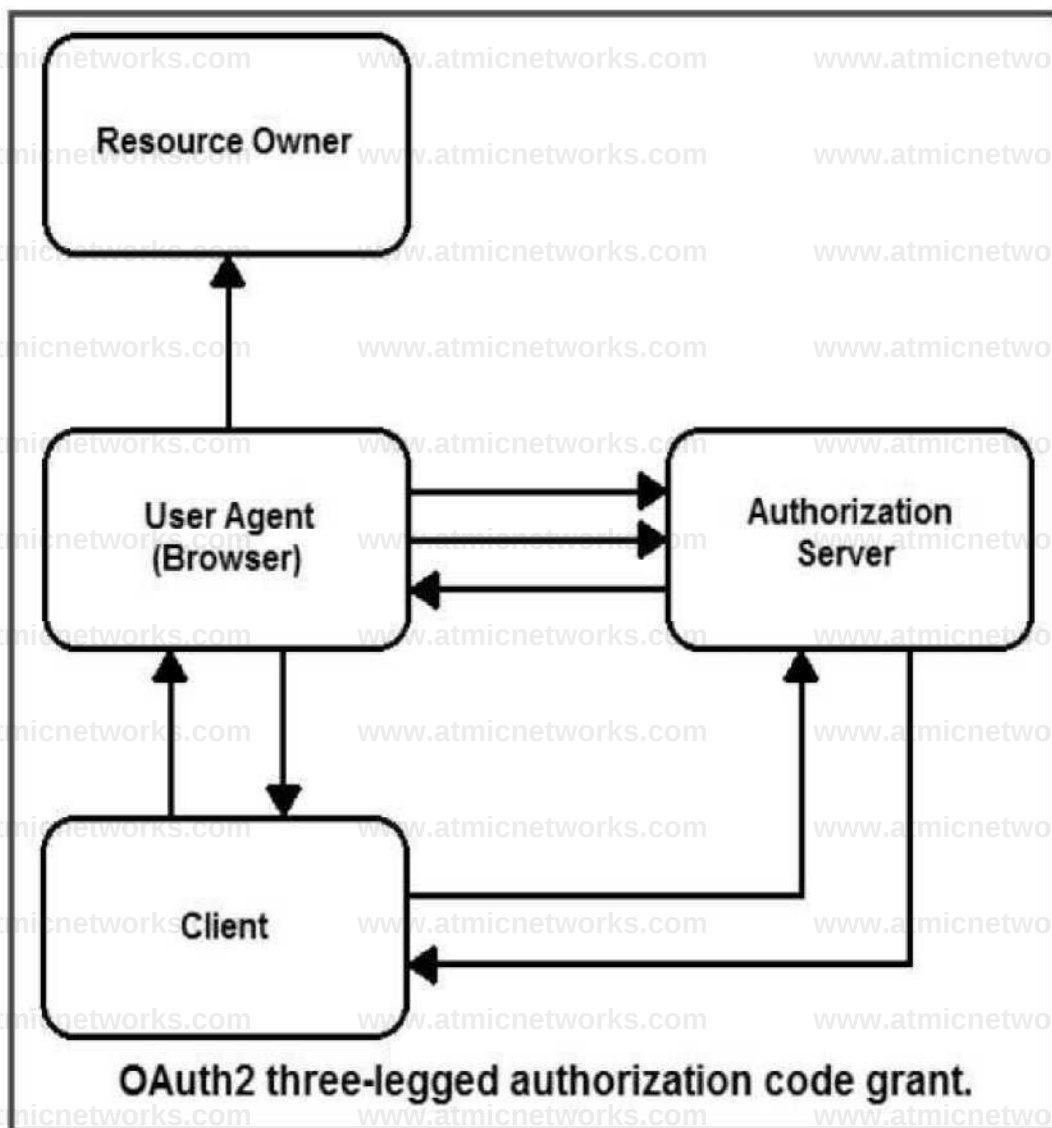
Answer: A

Explanation:

Question: 21

DRAG DROP

Refer to the exhibit.



Drag and drop the steps from the left into the correct order of operation on the right for a successful

OAuth2 three-legged authorization code grant flow.

Client initiates the flow

The authorization server authenticates the client, validates details sent, and responds with an access token

The authorization server redirects the user-agent back to the client using the redirection URI provided

The authorization server authenticates the resource owner

The client requests an access token from the authorization server's token endpoint

step 1

step 2

step 3

step 4

step 5

Answer:

Explanation:

Client initiates the flow

The authorization server authenticates the resource owner

The authorization server redirects the user-agent back to the client using the redirection URI provided

The client requests an access token from the authorization server's token endpoint

The authorization server authenticates the client, validates details sent, and responds with an access token.

Question: 22

Which two methods are API security best practices? (Choose two.)

- A. Use tokens after the identity of a client has been established.
- B. Use the same operating system throughout the infrastructure.
- C. Use encryption and signatures to secure data.
- D. Use basic auth credentials over all internal API interactions.
- E. Use cloud hosting services to manage security configuration.

Answer: AC

Explanation:

Question: 23

DRAG DROP

Refer to the exhibit.

GET**/dna/intent/api/v1/wireless/profile** Get Wireless Profile

Gets either one or all the wireless network profiles if no name is provided for network-profile.

Parameters

Name	Description
profileName string (query)	<i>Default value:</i>

Responses**Code** **Description**

200

The request was successful. The result is contained in the response body.

Example Value Model

```
[
  {
    "profileDetails": {
      "name": "string",
      "sites": [
        "string"
      ],
      "ssidDetails": [
        {
          "name": "string",
          "type": "Guest",
          "enabledFabric": true,
          "flexConnect": {
            "enableFlexConnect": true,
            "localToVlan": 0
          },
          "InterfaceName": "string"
        }
      ]
    }
  }
]
```

```

import requests
import json

def get_dnac_wireless_profiles():
    try:
        url = "https://sandboxdnac2.cisco.com/dna/intent/api/v1\" \ +
            "/wireless/profile?<item 2>=<item 3>\"
        print(token)
        payload = {}
        headers = { 'x-auth-token': token }

        response = requests.request("GET", url, headers=headers, data = payload)
        response.raise_for_status()
        return response.json()[0][<item 4>][<item 5>][<item 6>]

    except Exception as e:
        print(e)

def create_dnac_token():
    try:
        url = "https://sandboxdnac2.cisco.com/dna/system/api/v1/auth/token"

        payload = {}
        headers = { 'Authorization': 'Basic ZGV2bmV0dXNlcjpDaXNjbzEyMyE= ', 'Content-Type': 'application/json' }

        response = requests.request("POST", url, headers=headers, data = payload)
        response.raise_for_status()
        return response.json()["Token"]

    except Exception as e:
        print(e)

if name == "main":
    token = create_dnac_token()
    print(get_dnac_wireless_profiles())

```

The Python script is supposed to make an API call to Cisco DNA Center querying a wireless profile for the “ChicagoCampus” and then parsing out its enable FlexConnect value. Drag and drop the parts of the Python code from the left onto the item numbers on the right that match the missing sections in the exhibit.

0	<item 1>
ssidDetails	<item 2>
profileDetails	<item 3>
profileName	<item 4>
flexConnect	<item 5>
enableFlexConnect	<item6>

Answer:

Explanation:

profileName
profileDetails
ssidDetails
0
flexConnect
enableFlexConnect

Question: 24

A developer has completed the implementation of a REST API, but when it is executed, it returns a 401 error message. What must be done on the API to resolve the issue?

- A. Access permission to the resource must be granted, before the request.

- B. Configure new valid credentials.
- C. The requested API endpoint does not exist, and the request URL must be changed.
- D. Additional permission must be granted before the request can be submitted.

Answer: B

Explanation:

Question: 25

Refer to the exhibit.

Paginating the Results

By adding the page-size operator to the query URI you can divide the query results into groups (pages) of objects using the following syntax. The operand specifies the number of objects in each group.

`page-size = number-of-objects-per-page`

By adding the page operator in the query URI, you can specify a single group to be returned using the following syntax. The pages start from number 0.

`page = page-number`

This example shows you how to specify 15 fault instances per page in descending order, returning only the first page:

Many faults have occurred in the ACI environment and a sample of them needs to be examined. Which API call retrieves faults 30 through 45?

- A. GET `https://apic-ip-address/api/class/faultInfo.json?order-by=faultinst.severity|desc&page=1&page-size=15`
- B. GET `https://apic-ip-address/api/class/faultInfo.json?order-by=faultinst.severity|desc&page=2&page-size=15`
- C. GET `https://apic-ip-address/api/class/faultInfo.json?order-by=faultinst.severity|desc&page=30`

D. GET `https://apic-ip-address/api/class/faultInfo.json?order-by=faultinst.severity|desc&page=2&page-size=30`

Answer: B

Explanation:

Question: 26

Refer to the exhibit.

```
curl --insecure -H "Accept: application/json" -H "Content-Type application/json" -d @token_data https://ast0072-pod.cisco.com:33333//api/fdm/latest/fdm/token
```

The cURL POST request creates an OAuth access token for authentication with FDM API requests. What is the purpose of the file “@token_data” that cURL is handling?

- A. This file is a container to log possible error responses in the request.
- B. This file is given as input to store the access token received from FDM.
- C. This file is used to send authentication related headers.
- D. This file contains raw data that is needed for token authentication.

Answer: D

Explanation:

Question: 27

DRAG DROP

Drag and drop the expressions from below onto the code to implement error handling. Not all options are used.

```

baso_url - "https://apl.nwraki.com/api/vO"
posturl - '*9/networks/«s/statioRoutos' * ((str(base_url), str(networked))) headers - (
    'x-cisco-meraki-api-key': api key,
    'Content-Type': 'application/json'
)
routes = [
    {
        "subnet": "10.16.4.0/52",
        "gatewayIp": "10.1.0.20",
        "name": "ROUTE 1", "enabled": true

        "subnet": "10.253.254.0/24",
        "gatewayIp": "10.1.0.20",
        "name": "ROUTE2", "enabled": true

        "subnet": "10.168.0.0/21",
        "gatewayIp": "10.1.0.20",
        "name": "ROUTE3", "enabled": true }
    ]
for route in routes:
    print("Adding static: " + str(route['subnet']))
    response = requests.post(posturl, json=route, headers=headers)
    if response.status_code == 201:
        print("Done")
    else:
        print("Failed to add static: " + str(route['subnet']) + "\n" + response.text)

```

if response = 601:	else:	when:
if response == 201:	elif:	

Answer:

Explanation:

```

'x-cisco-meraki-api-key': api key, 'Content-Type': 'application/json' }
routes = [
    { "subnet": "10.16.4.0/22", "gatewayIp": "10.1.0.20", "name": "ROUTE1",
      "enabled": true
    },
    {
        "subnet": "10.253.254.0/24",
        "gatewayIp": "10.1.0.20", "name": "ROUTE2", "enabled": true
    },
    {
        "subnet": "10.168.0.0/21",
        "gatewayIp": "10.1.0.20", "name": "ROUTE 3", "enabled": true } ]

for route in routes:
    print("Adding static: " + str(route['subnet']))
    response = requests.post(posturl, json=route, headers=headers)
    if response.status_code == 201:
        print("Done!")
    else:
        print("Failed to add static: " + str(route['subnet']) + "\n" + response.text)

```

Question: 28

User report that they can no longer process transactions with the online ordering application, and the logging dashboard is displaying these messages.

Fri Jan 10 19:37:31.123 EST 2020 [FRONTEND] INFO: Incoming request to add item to cart from user 45834534858

Fri Jan 10 19:37:31 247 EST 2020 [BACKEND] INFO: Attempting to add item to cart

Fri Jan 10 19:37:31 250 EST 2020 [BACKEND] ERROR: Failed to add item: MYSQLDB ERROR: Connection refused

What is causing the problem seen in these log messages?

- A. The database server container has crashed.
- B. The backend process is overwhelmed with too many transactions.
- C. The backend is not authorized to commit to the database.
- D. The user is not authorized to add the item to their cart.

Answer: A

Explanation:

Question: 29

Refer to the exhibit.

Sfilter {strng}

query

Filter criteria for documents to return A URI with a Sfilter System Query Option identifies a subset of the Entries from the Collection of Entries identified by the Resource Path section of the URI The subset is determined by selecting only the Entries that satisfy the predicate expression specified by the query option The expression language that is used in Sfilter operators supports references to properties and literals. The literal values can be strings enclosed in single quotes, numbers and boolean values (true or false) or any of the additional literal representations shown in the Abstract Type System section. Query examples: Sfilter=Name eq 'Bob' \$filter=Tags/any(t t/Key eq 'Site') \$filter=Tags/any(t: t/Key eq 'Site' and t/Value eq "London")

GET /api/v1/compute/RackUnits?\$filter=Tags/any (t:t/Key eq 'Site')

An Intersight API is being used to query RackUnit resources that have a tag keyword set to

“Site”. What is the expected output of this command?

- A. list of all resources that have a tag with the keyword “Site”
- B. error message because the Value field was not specified
- C. error message because the tag filter should be lowercase
- D. list of all sites that contain RackUnit tagged compute resources

Answer: A

Explanation:

Question: 30

A user is receiving a 429 Too Many Requests error. Which scheme is the server employing that causes this error?

- A. rate limiting
- B. time outs
- C. caching
- D. redirection

Answer: A

Explanation:

Question: 31

DRAG DROP

```

I** get_dnac devices!).
I <itea 1>.
    ^UM^'""^*^^^'^^^
    payload • () header* • { l 'Content-Type' l 'application/json',
    'Accept': application/json', ' 'x-auth-token'i token
I >
    reeponee - requests.request("CET", url, hoaders-heeders, data - eayload, response.raise for status!)
    *p*payload)
    return response.text
<lt« 2>! print(e) if *tr(<iter J>) in str(e);
    create dnac token()
    elif str(<itM <>) in str(e) and i < RETRIES;
        b*ckoff_retry(getdnac devices)

def create dnac token)): try:
    url ■ "https://sandboxdnac.cisco.coa/dna/systsa/api/vl/auth/token* pay load ■ {}
    headers • (
        '<itea S>*i 'Basic XGV2h«V0dXNlcjpOaXNjb iEyRyt-', Content-Type':
        'application/json'
    )
    response ■ requests.request ("POST", url, headers=headers, data ■ payload)
    response.raise_for_st*tu*(> return response.jeon))('Token*j except Exception as e:
    print (a)
    if atrf cites. £>) in *tr(e): eye.exit!'Server Unavailable")
def backoff_retry(func_retryj: print("in backoff") tine.sleep!backoff)
    backoff "2

tunc retry!)

it naa«_ •• * __Mln__ token “ create_dnac_token() while True:
    print(get dnac devices())

```

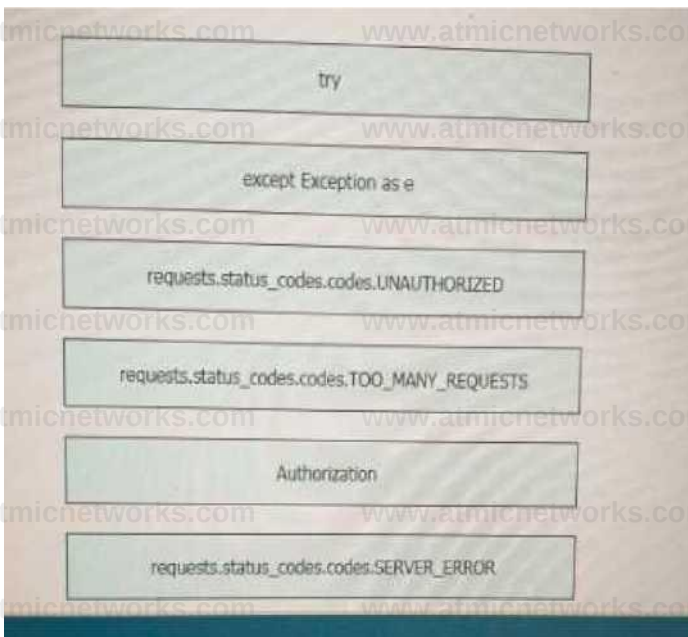
Refer to the exhibit Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the script to implement control flow.

Refer to the exhibit. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the script to implement control flow

<code>requests.status_codes.codes.TOO_MANY_REQUESTS</code>	<item 1>
<code>requests.status_codes.codes.SERVER_ERROR</code>	<item 2>
<code>requests.status_codes.codes.UNAUTHORIZED</code>	<item 3>
<code>try</code>	<item 4>
<code>Authorization</code>	<item 5>
<code>except Exception as e</code>	<item 6>

Answer:

Explanation:



Question: 32

DRAG DROP

Refer to the exhibit.

```

import request import Json import sys token - **

def get dnac devices (): <item 1>:
    url - "https://sandboxdnac.cisco.com/dna/intent/api/v1/network-device"

    print(token) payload » {} headers - ( 'Content-Type': 'application/json', "Accept":
    'application/json', 'x-auth-token' : token

    response - requests.request("GET", url, headers=headers, data = payload)
    response.raise_for_status() return response.text

<item 2>:
    print(e) if str (<item 3>) in
    str(e) : _oratednactoken_[l_

def create dnac token () : try:
    url - "https://sandboxdnac.cisco.com/dna/system/api/v1/auth/token"
    payload - {} headers - (<item 4>): 'Basic ZGVjbWVudXNlejpDaXNjbzEyMyE-',
    'Content-Type': 'application/json' 1

    response - requests.request("POST", url, headers=headers, data = payload) response.
    raise_for_status () return response.json()["Token"]
except Exception as e: print (e)
    if str (<item 5>) in str(e):
        sys.exit("DNAC Service is not reachable")

if name == "__main__": token = create dnac_token() print(get_dnac_devices())

```

Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the script to implement control flow.

except Exception as e	<item 1 >
try	<item 2>
Authorization	<item 3>
request status_codes.codes 5SERVER_ERROR	<item 4>
request status_codes.codes.UNAUTHORIZED	<item 5>

Answer:

Explanation:

```
try
```

```
except Exception as e
```

```
request.status_codes.codes.UNAUTHORIZED
```

```
Authorization
```

```
request.status_codes.codes.SERVER_ERROR
```

Question: 33

Meraki Dashboard API Response

Response Status Code 200

Response Link Header

```
<https://n6.meraki.com/api/v0/organizations/681155/devices ?perPage=3&startingAfter-
```

```
0000-0000-0000>; rel-first,
```

```
<https://n6.meraki.com/api/v0/organizations/681155/devices?perPage=3
```

```
&startingAfter=Q2EK-3UBE-RRUY>; rel-next,
```

```
<https://n6.meraki.com/api/v0/organizations/681155/devices?endingBefore =zzzz-zzzz zzzz&perPage=3>;
```

rel-last Response Body

```
{
```

```
  'name': '\\\\
```

```
  "serial": "Q2CV-V49B -RCMZ",
```

```
  "mac": "0c:8d:db:95:aa:39",
```

"networkid": "L-566327653141846927",

"model11": "MV71",

"address": "430 E Cactus Ave .\nLas Vegas, NV 89183",

"lat": 36.00017,

"lng": -115.15302,

"notes": "",

"tagsn": "",

"lanip": "192.168.0.25",

' configurationUpdatedAt": "2019-08-08T02:15:36Z", ' firmware11 : "ca.rnera-3-3011

},

{

"ncune": "Alex's MR84 - 1"1

"serial": "Q2EK-2LYB-PCZP",

"mac": 'eO: 55:3d:10:56:8a', "networkid": "L 566327653141846927",

"model": "MR84",

"address": "11 ,

"lat": 39.9482993357826,

"lng": -82.9895675461739,

"notes": "",

"tags": ' ',

"lanip": null,

"configurationVpdatedAt": "2018-02-03T11:02:37Z",

"firmware11 : "Not running configured version"

},

{

```
"na.rne11 : "Vegas Living Room MR84 11 ,

"serial": "Q2EK-3UBE-RRUY",

"mac": "e0:55:3d:10:5a:ca", "networkid": "L_566327653141846927" 1

"model": "MR84",

"address": "430 E Cactus Ave.\nLas vegas, NV 89183", "lat": 36.00015,

"lng": -115.15308,

"notes": ' ',

"tags": "11

1

"lanip: "192.168.0 .20",

"configurationVpdatedAt": "2018-09-29T12:23:21Z",

' firmware": "Not running configured version"
```

Refer to the exhibit.

```
import request
import json
meraki_api_key = "<api key>"
url =
"https://api.meraki.com/api/v0/organizations/12345567890/devices" headers = {
    "X-Cisco-Meraki-API-Key": meraki_api_key,
    J
    params = {
        "perPage": 3
    }
res = requests.get(url, headers=headers, params=params) formatted_message = ""
Meraki Dasboard API Response

Response Status Code : ()
Response Link Header : ()
Response Body : ()
```

```

"""format(res.statuscode, res.headers.get('Link'), json.dumps(res.json(), indent=4)) print
(formattedmessage)
<https://n6.meraki.com/api/v0/organizations/1234567890/devices?perPage=3&startingAfter=0000-
0000-0000>; rel=first,
<https://n6.meraki.com/api/v0/organizations/1234567890/devices?perPage=3&startingAfter=Q2EK-
3UBE-RRUY>; rel=next,
<https://n6.meraki.com/api/v0/organizations/1234567890/devices?
endingBefore=zzzz-zzzz-zzzz&perPage=3>; rel=last

```

Which line of code must be added to this code snippet to allow an application to pull the next set of paginated items?

- A. `requests.get(url, links=['next']['url'])`
- B. `requests.get(url, headers=links['next']['url'])`
- C. `requests.get(res.links['next']['url'], headers=headers)`
- D. `requests.get(res.headers.get('Link'))['next']['url'], headers=headers)`

Answer: C

Explanation:

Question: 34

An Etag header is included in the HTTP response for an API resource. What are two benefits of using the value of the Etag for future interactions involving the same API resource? (Choose two.)

- A. caching and optimization of response payloads
- B. creating conditional requests
- C. categorizing and comparing this API resource with others
- D. checking the integrity of the resource
- E. requesting the list of operations authorized for this resource

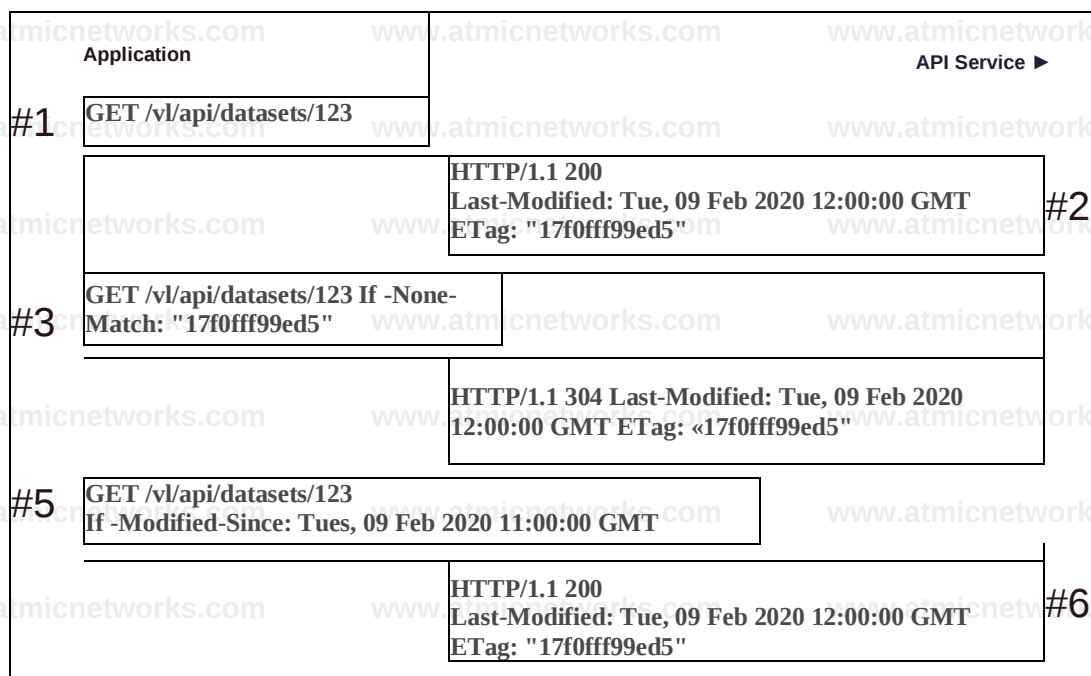
Answer: AB

Explanation:

- The ETag HTTP response header is an identifier for a specific version of a resource. It lets caches be more efficient and save bandwidth, as a web server does not need to resend a full response if the content has not changed. Additionally, etags help prevent simultaneous updates of a resource from overwriting each other ("mid-air collisions").
- The ETag or entity tag is part of HTTP, the protocol for the World Wide Web. It is one of several mechanisms that HTTP provides for Web cache validation, which allows a client to make conditional requests.

Question: 35

Refer to the exhibit.



An application uses an API to periodically sync a large data set. Based on the HTTP message sequence provided, which statements are true about the caching behavior seen in the scenario? (Choose two.)

- The full dataset was transmitted to the client twice.
- The dataset changed sometime between message #4 and #5.
- A partial dataset was transmitted to the client in message #4.
- The dataset did not change during the scenario.

E. Messages #3 and #5 are equivalent.

Answer: AD

Explanation:

Question: 36

DRAG DROP

Refer to the exhibit.

Description

The add Networkobject operation handles configuration related to let.vc : - : model.
This API call is not allowed on the standby unit in an HA pair.

HTTP request

URL

POST /api/fdm/v4/object/networks

Data Parameters

Parameter	Required	Type	Description
name	True	string	A string that is the name of the network object
description	False	string	A string containing the description information. Field level constraints: length must be between 0 and 200 (inclusive). (Note: Additional constraints might exist)
subType	True	string	An enum value that specifies the network object type. HOST - A host type. NETWORK - A network type. FQDN - A FQDN type. RANGE - A range type. Field level constraints; cannot be null. (Note: Additional constraints might exist)
value	True	string	A string that defines the address content for the object For HOST objects, this is a single IPv4 or IPv6 address without netmask or prefix For NETWORK objects, this is an IPv4 or IPv6 network address with netmask (in CIDR notation) or prefix. For FQDN objects, this is a Fully qualified domain name. For RANGE objects, this is IPv4 or IPv6 addresses separated by Field level constraints: cannot be null, must match pattern *((?!:).)*\$ (Note: Additional constraints might exist)
isSystemDefined	False	boolean	A Boolean value. TRUE or FALSE(the default). The TRUE value indicated that this Network object is a system defined object
dnsResolution	False	string	DNS Resolution type can be IPV4.ONLY, IPV6.ONLY or IPV4 .ANDJPV6.
type	True	string	A UTF8 string, all letters lower-case, that represents the classtype. This corresponds to the class name.

curl -X <item 1> -H "Authorization: Bearer exwsxads-sadadsOasOdO-lw-l-lw-lw" —header 'Content-Type: application/json' —header 'Accept: application/json' -d '{ "name": "171.168.1.z", "value": "<item 2>", "subType": "<item 3>", "type": "<item 4>" }' https://ast0072-pod.cisco.com:33333/api/fdm/v4/object/<item 5>

Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the cURL exhibit to complete the cURL request to FirePower Device Manager API to create objects. Not all code snippets are used.

HOST	<item 1>
POST	<item 2>
NETWORK	<item 3>
networks	<item 4>
networkobject	<item 5>
171.168.1.0/24	
False	
isSystemDefined	

Answer:

Explanation:

POST
171.168.1.0/24
NETWORK
networkobject
networks

Question: 37

Which RFC5988 (Web Linking) relation type is used in the Link header to control pagination in APIs?

- A. rel="index"
- B. rel="page"
- C. rel="next"
- D. rel="section"

Answer: C

Explanation:

Question: 38

A client is written that uses a REST API to interact with a server. Using HTTPS as the transport, an HTTP request is sent and received an HTTP response. The response contains the HTTP response status code: 503 Service Unavailable.

Which action is the appropriate response?

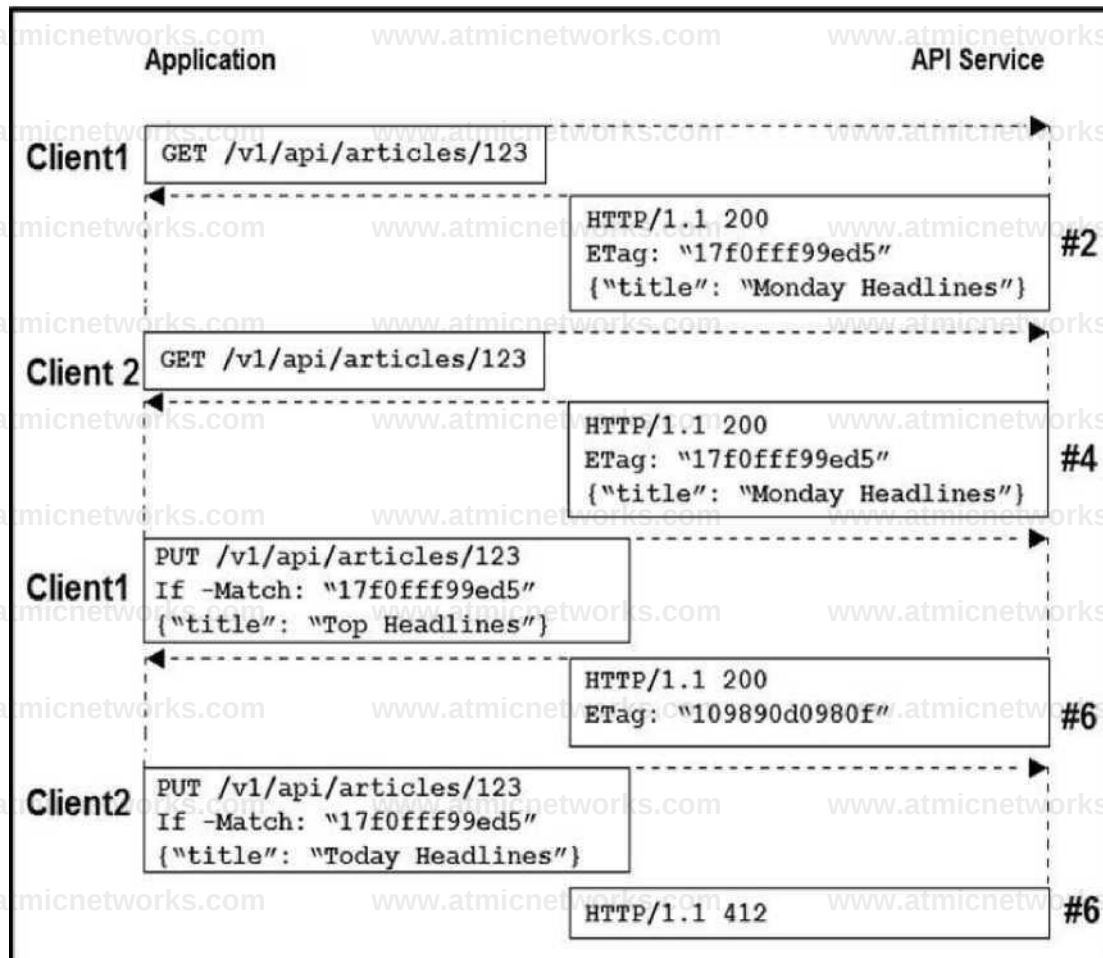
- A. Add an Authorization header that supplies appropriate credentials and sends the updated request.
- B. Resend the request using HTTP as the transport instead of HTTPS.
- C. Add an Accept header that indicates the content types that the client understands and send the updated request.
- D. Look for a Retry-After header in the response and resend the request after the amount of time indicated.

Answer: D

Explanation:

Question: 39

Refer to the exhibit.



Two editors are concurrently updating an article's headline from their mobile devices. What results from this scenario based on this REST API sequence?

- A. The article is marked as "Conflicted"
- B. The article headline is "Monday Headlines"
- C. The article headline is "Today Headlines"
- D. The article headline is "Top Headlines"

Answer: D

Explanation:

Question: 40

Refer to the exhibit.

```
response = requests.get(url)
if response.status_code != 200:
    error_message = "Unexpected HTTP Response code: {}".format(response.status_code) raise
    Exception(error_message)
data = response.json()
```

This snippet of a script has recently started exiting abnormally with an exception stating “Unexpected HTTP Response code: 429”.

Which solution handles rate limiting by the remote API?

- A.

```
response = requests.get(url)
if response.status_code == 429:
    backoff_seconds = int(response.headers['Retry-After'])
    sleep(backoff_seconds)
elif response.status_code != 200:
    error_message = "Unexpected HTTP Response code: {}".format(response.status_code) raise
    Exception(error_message)
data = response.json()
```
- B.

```
response = requests.get(url)
if response.status_code != 200 and response.status_code != 429:
    error_message = "Unexpected HTTP Response code: {}".format(response.status_code) raise Exception
    (error_message)
data = response.json()
```
- C.

```
response = requests.get(url)
if response.status_code != 200 and response.status_code != 429:
    backoff_seconds = int(response.headers['Retry-After'])
    sleep(backoff_seconds)
    error_message = "Unexpected HTTP Response code: {}".format(response.status_code) raise
    Exception(error_message)
data = response.json()
```
- D.

```
response = requests.get(url)
if response.status_code == 429:
    backoff_seconds = int(response.headers['Retry-After'])
    sleep(backoff_seconds)
    response = requests.get(url)
elif response.status_code != 200:
    error_message = "Unexpected HTTP Response code: {}".format(response.status_code) raise
    Exception(error_message)
data = response.json()
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D

Explanation:

Question: 41

An application uses OAuth to get access to several API resources on behalf of an end user. What are two valid parameters to send to the authorization server as part of the first step of an authorization code grant flow? (Choose two.)

A. URI to which the authorization server will send the user-agent back when access is granted or denied

B. list of the API resources that the application is requesting to access

C. secret that was generated by the authorization server when the application registered as an OAuth integration

D. list of scopes that correspond to the API resources to which the application is requesting to access

E. name of the application under which the application registered as an OAuth integration

Answer: AC

Explanation:

Question: 42

DRAG DROP

Refer to the exhibit.

```

import threading
import requests

def get_device_list(endpoint, apikey):
    url = "https://api.meraki.com/api/v0/networks/" + endpoint
    hdr = {'x-cisco-meraki-api-key': format(str(apikey)), 'Content-Type':
    'application/json'}
    response = requests.get(url=url, headers=hdr)
    print(response.json())

if name = " main ":
    # creating thread
    thread = <item 1>(<item2>=get_device_list,

    <item 3>=("NETWORK_ID/devices", "API_TOKEN"))

    thread.<item 4>
    thread.<item 5>

```

Python threading allows a developer to have different parts of a program run concurrently and simplify a design. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to create a thread instance.

join()	<item 1>
threading.Thread	<item 2>
start()	<item 3>
target	<item 4>
args	<item 5>

Answer:

Explanation:

threading.Thread
target
args
start()
join()

Question: 43

DRAG DROP

A developer is creating a Python script to use the Webex Teams REST API to list joined spaces, and gracefully handle and print the errors it receives. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the script.

import requests

```
url = "https://api.ciscospark.com/v1/rooms"
bearer = "BEARER_TOKEN_HERE"
headers = {"content-type": "application/json", "Authorization": "Bearer " + bearer}
```

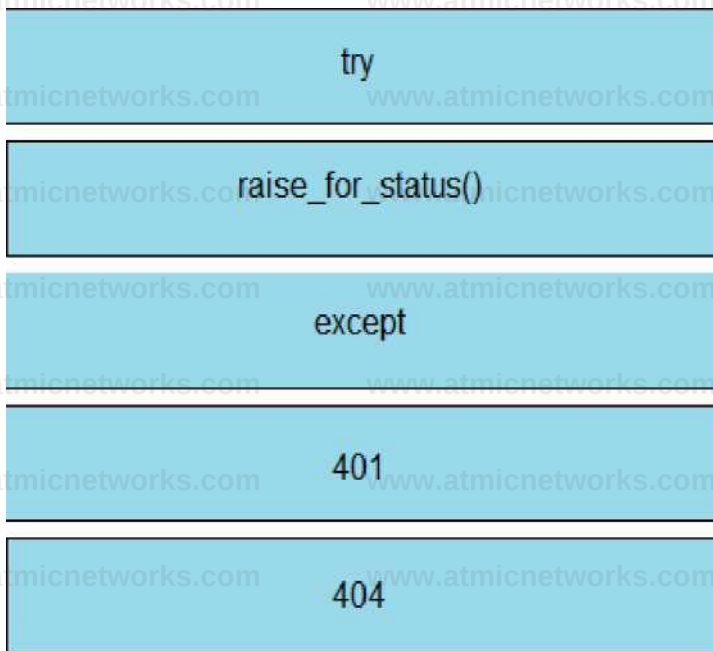
```
<item 1>:
    response = requests.get(url, headers=headers, verify=False)
    response.<item 2>
```

```
<item 3> requests.exceptions.HTTPError as err:
    if response.status_code = <item 4>:
        print("Check Bearer Token")
    elif response.status_code = <item 5>:
        print("Check API Endpoint uri")
    elif response.statuscode = 500:
        print("Server Error, Try again Later") else:
        print("HTTP Error") + str(err)
```

401	<item 1 >
404	<item 2>
try	<item 3>
except	<item 4>
raise_for_status()	<item 5>

Answer:

Explanation:



Question: 44

DRAG DROP

Refer to the exhibit.

```
#!/usr/bin/python3
import requests, sys

head = { 'Content-Type': '<item 1>',
        'Authorization': 'Bearer NWU4NjQOODJkZTItM...4-ad72cae0e10f' }

res = requests.post(url='https://api.ciscopark.com/v1/<item 2>', headers = head,
                    json = { '<item 3>': sys.argv[1] })
spaceld = res.json()['id']

members = [ 'johndoe@example.com', 'janedoe@example.com' ]
for member in members:
    res = requests.post(url='https://api.ciscopark.com/v1/<item 4>' headers =
                        head, json = { 'roomld' spaceld, '<item 5>': member}))
```

Refer to the exhibit above and click on the resource tabs in the top left corner to view resources to help with this question.

Create a Room

Creates a room. The authenticated user is automatically added as a member of the room. See the [Memberships API](#) to learn how to add more people to the room.

To create a 1:1 room, use the [Create Messages](#) endpoint to send a message directly to another person by using the `toPersonId` or `toPersonEmail` parameters.

POST `/v1/rooms`

Body Parameters

`title`

string **Required**

A user-friendly name for the room.

`teamId`

string

The ID for the team with which this room is associated.

Create a Membership

Add someone to a room by Person ID or email address; optionally making them a moderator.

POST `/v1/memberships`

Body Parameters

`roomId`

string **Required**

The room ID.

`personId`

string

The person ID.

`personEmail`

string

The email address of the person.

`isModerator`

boolean

Whether or not the participant is a room moderator.

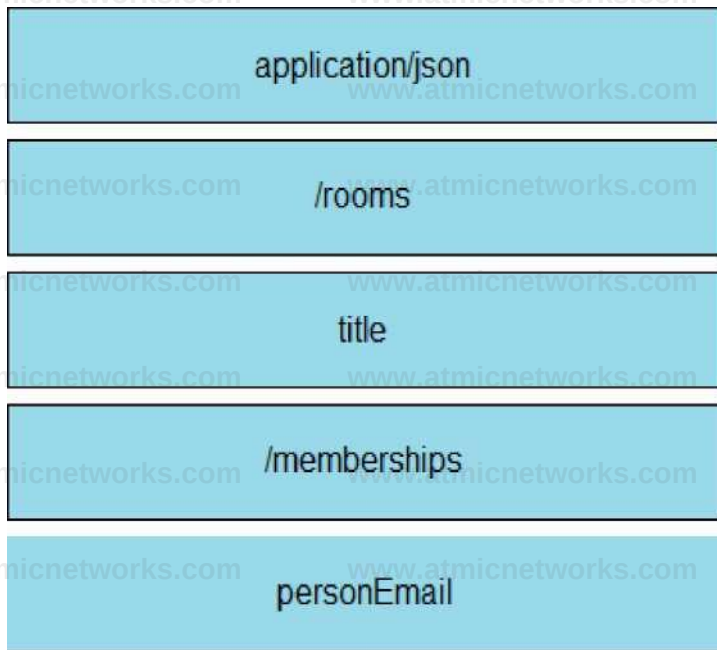
A developer is creating a Python Script that will use the Webex Teams REST API to automatically

create a new collaboration space with him and his team leads on-demand via a Linux terminal command. Drag and drop the code snippets from the left onto the numbers on the right that match the missing sections in the exhibit to complete the script. Not all code snippets are used.

application/xml	<item 1>
application/json	<item 2>
name	<item 3>
userName	<item 4>
title	<item 5>
personEmail	
/members	
/memberships	
/rooms	
/spaces	

Answer:

Explanation:



Question: 45

DRAG DROP

Refer to the exhibit.

Create a Message

Post a plain text or **rich text** message, and optionally, a **file attachment** attachment, to a room.

The `files` parameter is an array, which accepts multiple values to allow for future expansion, but currently only one file may be included with the message.

POST /v1/messages

Body Parameters

roomId

string

The room ID of the message.

toPersonId

string

The person ID of the recipient when sending a private 1:1 message.

toPersonEmail

string

The email address of the recipient when sending a private 1:1 message.

text

string

The message, in plain text. If markdown is specified this parameter may be *optionally* used to provide alternate text for UI clients that do not support rich text. The maximum message length is 7439 bytes.

markdown

string

The message, in Markdown format. The maximum message length is 7439 bytes.

```
#!/bin/bash
```

```
curl<item 1> https://api.Giscopark.com/v1/messages \
```

```
-H '<item 2>' \
```

```
-H '<item 3> NMU4NjQOYWUtNjy P. . . Ieb6574-ad72oae0e10f'\
```

```
-d '{ "<item 4>": "cisco@usa.net", "text": "Intruder Alert!" }'
```

Refer to the exhibit. A system administrator has installed a Linux-based alarm system in their home that can execute a Bash shell script when an intruder is detected. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to create a chat-ops script that will notify of alarms via the Webex Teams REST API. Not all code snippets are used.

toPersonEmail	<item 1>
userName	<item 2>
-X POST	<item 3>
-XPUT	<item 4>
Content-Type: application/json	

Content-Type: application/xml

Authorization: Basic

Authorization: Bearer

Answer:

Explanation:

-X POST
Content-Type: application/json
Authorization: Bearer
toPersonEmail

Question: 46

DRAG DROP

Refer to the exhibit.

```

RETRIES = 6
i = 0
backoff = 1

while True:
    try:
        response = requests.request(*args, **kwargs)
        response.raise_for_status()
        return response
    except Exception as e:
        if (response.status_code != <item 1>) or i == <item 2> return response

        time.sleep(<item 3>)

        <item 4> *= 2
        <item 5> += 1

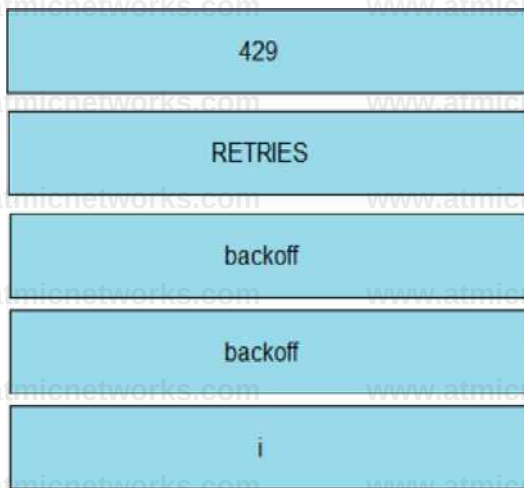
```

Refer to the exhibit. The self-service Webex Teams bot is failing when many users attempt to interact with it at the same time. Drag and drop the code snippets from the left onto the correct item numbers on the right that match the missing sections in the exhibit to complete this code to handle this high-load situation.

429	<item 1>
backoff	<item 2>
backoff	<item 3>
RETRIES	<item 4>
i	<item 5>

Answer:

Explanation:



Question: 47

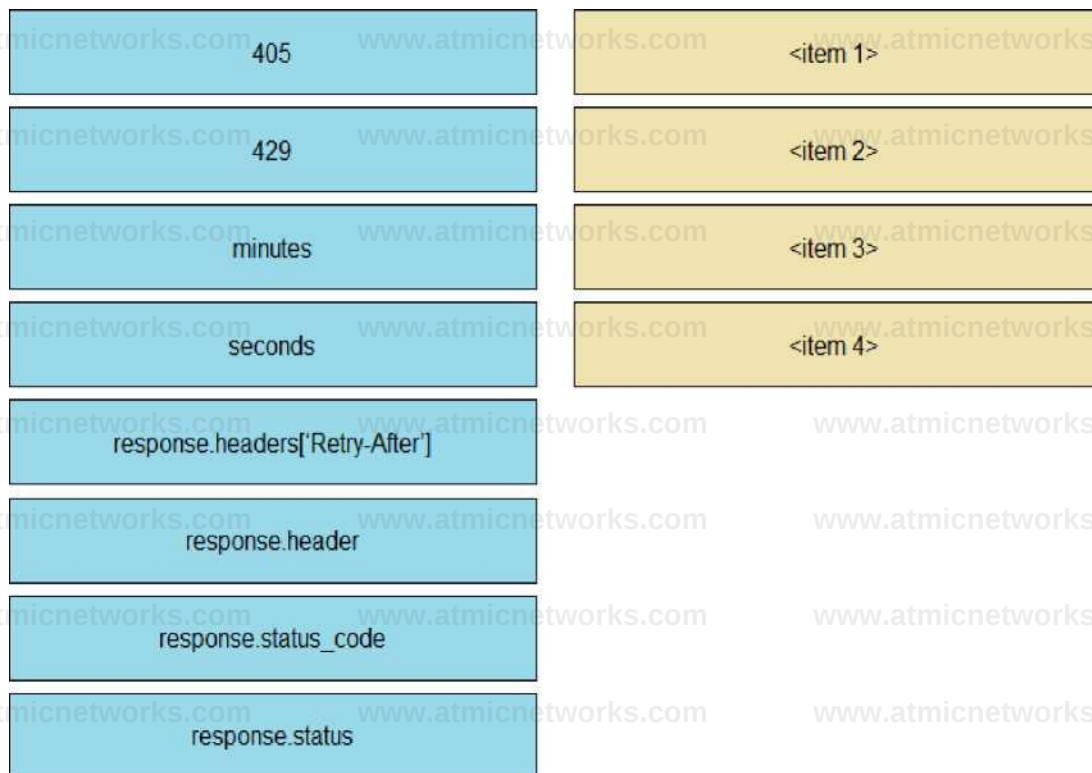
DRAG DROP

Refer to the exhibit.

```
import request, time
bearer = "BEARER_TOKEN_HERE"
url = 'https://api.ciscopark.com/v1/rooms'
headers = {'content-type': 'appliestion/yang-data+json',
           'accept': 'application/yang-data+json',
           "Authorization": "Bearer "+bearer}

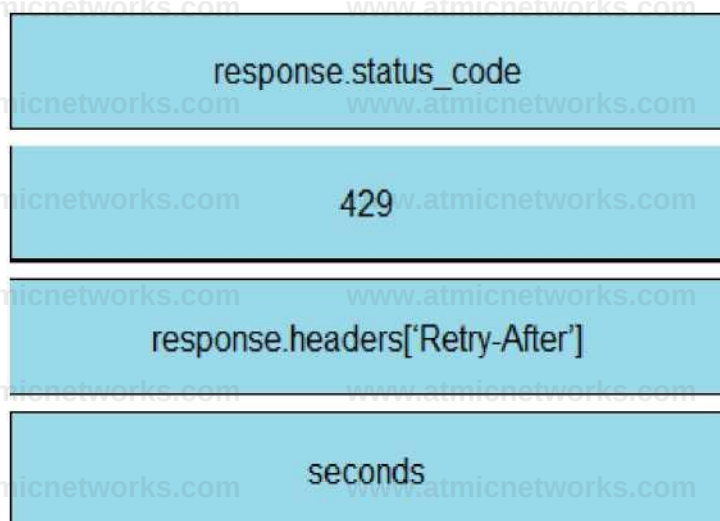
while True:
    response = requests.get(url, headers=headers, verify=False) status = <item 1>
    if(status == 200):
        print("Success")
        break
    elif(status == <item 2>):
        sleep_time = int(<item 3>)
        print('Too Many requests. Sleeping for ', sleep time, '<item 4>')
        time.sleep(sleep time) else:
        print("Error code" + str(status) + "detected.") break
```

A developer is creating a Python script to use the Webex Teams REST API to list joined spaces, retry after the server-specified amount of time if a “Too many requests” response is received, and print any other error that is received. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the script. Not all code snippets are used.



Answer:

Explanation:



Question: 48

Refer to the exhibit.

Responding to Events

After creating a bot, you can use its access token with the Webex REST APIs to perform actions as the bot, such as [sending a message](#) with an interactive [card](#) to someone. To respond to events within Webex Teams, such as someone sending your bot a message or adding it to a group space, you'll need to configure webhooks. Webhooks will let you know when an activity has occurred so you can take action. Check out the [Webhooks Guide](#) for more information about configuring webhooks.

With cards, you can give your users even more ways to interact with your bot or service, right in the Webex Teams clients. See the [Cards Guide](#) for more information.

Differences Between Dots and People

One key difference between Webex Teams Bots and regular users is that, in group rooms, bots **only have access to messages** in which they are mentioned. This means that messages created with webhooks only fire when the bot is mentioned in a room.

Also, [listing messages](#) requires that you specify a special `?mentionedPeople=me` query parameter.

```
GET /messages?mentionedPeople=me&roomId=SOME_INTERESTING_ROOM
Authorization: Bearer THE_BOTS_ACCESS_TOKEN
```

Bot Frameworks & Tools

There are several bot frameworks that can greatly simplify the bot development process by abstracting away the low-level communications with the Webex REST API, such as creating and sending API requests and configuring webhooks. Instead, you can focus on building the interaction and business logic of your bot.

[Flint](#) is an open source bot framework with support for regex pattern matching for messages and more.

Which set of API requests must be executed by a Webex Teams bot after receiving a webhook callback to process messages in a room and reply with a new message back to the same room?

A GET /message&roomId=<ROOM_ID>

POST /messages
{“roomId”:<ROOM_ID>,”text”:<MESSAGE>}

B GET /messages&mentionedPeople=me&roomId=<ROOM_ID>

PUT /messages
{“roomId”:<ROOM_ID>,”text”:<MESSAGE>}

^c GET /message&roomId=<ROOM_ID>

PUT /messages

{“roomId :”<ROOM_ID>”, “text” :<MESSAGE>} }

^D GET /messages&mentionedPeople=me&roomId=<ROOM_ID>

POST /messages {“roomId :”<ROOM_ID>”, “text” :<MESSAGE>} }

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D

Explanation:

Question: 49

Which snippet presents the correct API call to configure, secure, and enable an SSID using the Meraki API?

A)

```
curl -X PUT \
  -url 'https://api.meraki.com/api/v0/networks/:networkId/ssids/2' \
  -H 'X-Cisco-Meraki-API-Key: 15da0c6ffff295f16267f88f98694cf29a86ed87' \
  -H 'Accept: application/json' \
  -H 'Content-type: application/json' \
  -data-raw '{
    "name": "My SSID",
    "enabled": false,
    "authMode": "psk",
    "encryptionMode": "wpa",
    "psk": "meraki123",
    "wpaEncryptionMode": "WPA1 and WPA2"
  }'
```

B)

```
curl -X PUT \
  -url 'https://api.meraki.com/api/v0/networks/:networkId/ssids/2' \
  -H 'X-Cisco-Meraki-API-Key: 15da0c6ffff295f16267f88f98694cf29a86ed87' \
  -H 'Accept: application/json' \
  -H 'Content-type: application/json' \
  -data-raw '{
    "name": "My SSID",
    "enabled": true,
    "authMode": "psk",
    "encryptionMode": "wpa",
    "psk": "meraki123",
    "wpaEncryptionMode": "WPA1 and WPA2"
  }'
```

C)

```
curl-X PUT \
- url 'https://api.meraki.com/api/v0/networks/:networkId/ssids/2' \
- H 'X-Cisco-Meraki-API-Key: 15da0c6ffff295f16267f88f98694cf29a86ed87' \
- H 'Accept: application/json' \
- H 'Content-type: application/json' \
-data-raw '{
"enabled": true,
"useVlanTagging": true
}
```

D)

```
curl-X PUT \
-url 'https://api.meraki.com/api/v0/networks/:networkId/ssids/2' \
- H 'X-Cisco-Meraki-API-Key: 15da0c6ffff295f16267f88f98694cf29a86ed87' \
- H 'Accept: application/json' \
- H 'Content-type: application/json' \
-data-raw '{
"name": "My SSID",
"enabled": true,
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

Explanation:

Question: 50

FILL BLANK

Fill in the blanks to complete the Python script to enable the SSID with a name of “371767916” in the network resource “11111111” using the Meraki Dashboard API.

```

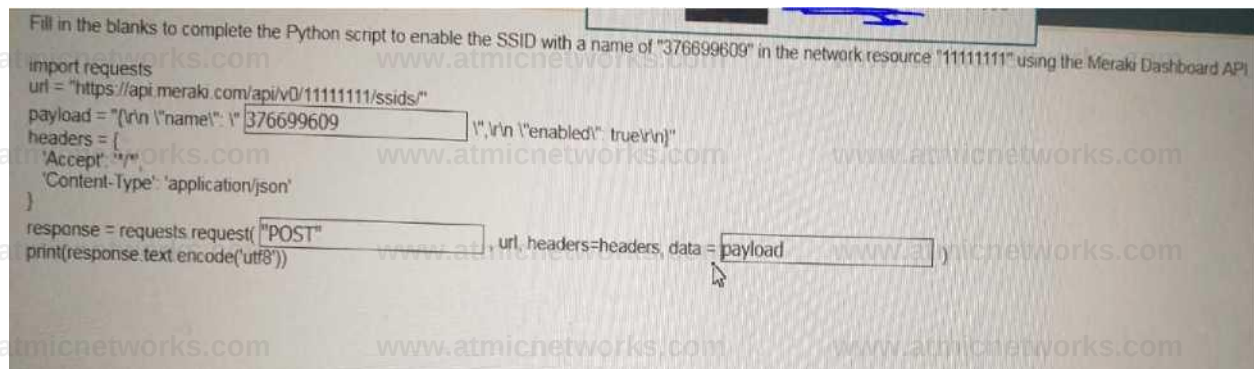
import requests
url = "https://api.meraki.com/api/v0/11111111/ssids"
payload = "{\n  \"name\": \"V | _____ |\", \"enabled\": true\n}"
headers = {
    'Accept': 'T',
    'Content-Type': 'application/json'
}
response = requests.request(_____, url, headers=headers, data = _____)
print(response.text.encode('utf8'))

```

**Answer: See
explanation below**

Explanation:

1. 371767916
2. 'PUT'
3. payload



Question: 51

DRAG DROP

Drag and drop the code onto the snippet to update a SSID in Meraki using the Dashboard API. Not all options are used.

```
base_url = "https://api.meraki.com/api/v0"
network_id = "N_1234567890"
requests.put(
    [ ] + " /networks/" + [ ] + "/ssids/0",
    headers = {
        "X-Cisco-Meraki-API-Key": [ ],
        "Content-Type": " [ ] "
    },
    data = json.dumps({
        "number": 0,
        "name": ssid,
        "enabled": True,
        "authMode": "psk",
        "psk": [ ],
        " [ ] ": "wpa",
        "wpaEncryptionMode": "WPA2 only"
    })
```

application/json

organization_id

network_id

wireless_password

base_url

api_key

encryptionMode

Answer:

Explanation:

```

base_url = "https://api.meraki.com/api/v0"
network_id = "N_1234567890"
requests.put(
    [base_url] + " /networks/" + [network_id] + "/ssids/0",
    headers = {
        "X-Cisco-Meraki-API-Key": [api_key] ,
        "Content-Type": " [application/json] "
    },
    data = json.dumps ({
        "number": L 0,
        "name": ssid,
        "enabled": True,
        "authMode": "psk",
        "psk": [wireless_password] ,
        " [encryptionMode] ": "wpa",
        "wpaEncryptionMode": "WPA2 only"
    })

```

Question: 52

DRAG DROP

Refer to the exhibit.

```

def process_all_pages(url):
    data = []
    try:
        response = requests.get(url)
        if <item 1> == 200:
            while <item 2>:
                response = requests.get(<item 3>)
                response.raise_for_status()
                data.append(response.json())
            return data
    except Exception as e:
        print("Server returned non-200 OK response during pagination")

```

Drag and drop the parts of the Python code from the left onto the item numbers on the right that match the missing sections in the exhibit that consumes REST API pagination.

<code>response.status_code</code>	<item 1>
<code>response.links['next']['url']</code>	<item 2>
<code>response.headers.get('Link')</code>	<item 3>

Answer:

Explanation:

`response.status_code`

`response.headers.get('Link')`

`response.links['next']['url']`

The correct URL from next page can be retrieved by using `response.links['next']['url']`. The use of `response.headers.get('Link')` could be easily replaced by an infinite loop like 'while True:' and it would be the same. They're just testing our knowledge here. The trick here is that once we reach the last page, `response.links['next']['url']` within the 'try' context will fail and we'll move to the 'except' clause and the program will exit.

Question: 53

DRAG DROP

Refer to the exhibit.

```

<item 1> python:3.6-alpine
<item 2> .
<item 3> pip install -r requirements.txt
<item 4> 5001
<item 5> ["python", "app.py"]

```

Drag and drop the correct parts of the Dockerfile from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the Dockerfile to successfully build and deploy a container running a Python application. Not all parts of the Dockerfile are used.

ENV	<item 1>
CMD	<item 2>
RUN	<item 3>
COPY	<item 4>
VOLUME	<item 5>

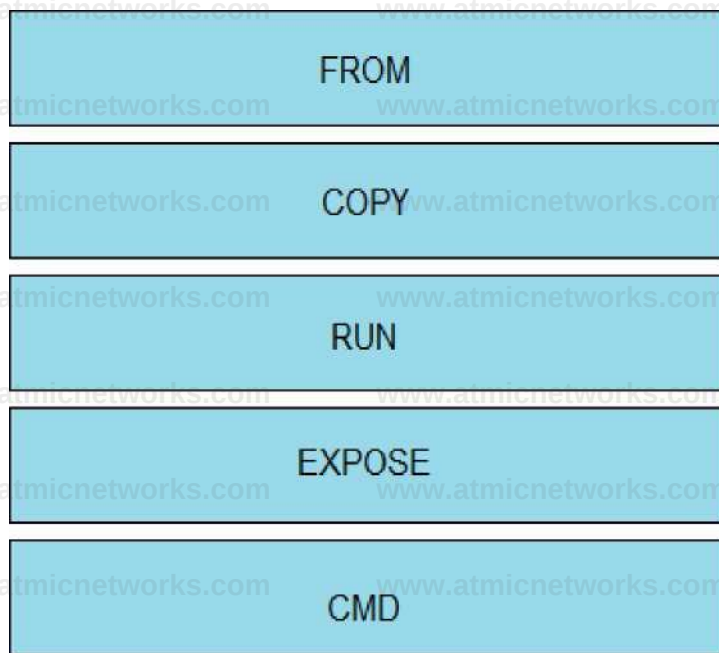
FROM

WORKDIR

EXPOSE

Answer:

Explanation:



FROM python:3.6-alpine

COPY .

RUN pip install -r requirements.txt

EXPOSE 5001

CMD ["python", "app.py"]

Question: 54

The UCS Python SDK includes modules for Service Profile template creation. Which two UCS Service Profile template types are supported? (Choose two.)

- A. initial-template
- B. updating-template
- C. abstract-template
- D. attached-template

E. base-template

Answer: AB

Explanation:

Question: 55

A container running a Python script is failing when it reaches the integration testing phase of the CI/CD process. The code has been reviewed thoroughly and the build process works on this container and all other containers pass unit and integration testing.

What should be verified to resolve the issue?

- A. that the correct port is exposed in the Dockerfile
- B. that the necessary modules and packages are installed on build
- C. that the script is running from the right directory
- D. that the Python version of the container image is correct

Answer: A

Explanation:

Question: 56

Click on the GET Resource button above to view resources that will help with this question.

"Greater Than" Operator

The **gt** operator returns true if the left operand is greater than the right operand, otherwise it returns false. The **gt** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is greater than 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory gt 98304
```

Example: Query Audit log records where "CreationTime" is greater than '2018-06-20T05:31:38.862Z'. The date must be specified in UTC time without quotes.

```
GET /api/v1/aaa/AuditRecords?$filter=CreationTime gt 2018-06-20T05:31:38.862Z
```

"Less Than" Operator

The **lt** operator returns true if the left operand is less than the right operand, otherwise it returns false. The **lt** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is less than 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory lt 98304
```

"Greater Than Or Equal" Operator

The **ge** operator returns true if the left operand is greater than or equal to the right operand, otherwise it returns false. The **ge** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is greater than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory ge 98304
```

"Less Than Or Equal" Operator

The **le** operator returns true if the left operand is less than or equal to the right operand, otherwise it returns false. The **le** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is less than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory le 98304
```

"And" Operator

The **and** operator returns true if both the left and right operands evaluate to true, otherwise it returns false.

Example: Query RackUnit resources where the Model property is equal to 'UCSC-C240-M5SN' and thy server has more than 64GB of memory:

```
GET /api/v1/compute/RackUnits?$filter=Model eq 'UCSC-C240-M5SN' and AvailableMemory gt 65000
```

"Or" Operator

The **or** operator returns true if either the left or right operand evaluate to true, otherwise it returns false.

Example: Query RackUnit resources where the Model property is equal to 'UCSC-C240-M5SN' **or** the Model property is equal to 'UCSC-C240-M5SN'. Use the \$select keyword to reduce the size of the output JSON document.

"Not" Operator

The **not** operator returns true if the operand returns false, otherwise it returns false.

Example: Query RackUnit resources where the model property is not ('HX220C-M5SX' or 'HX220C-M5S'). The example shows how grouping parenthesis can be used to set the operator precedence.

```
GET /api/v1/compute/RackUnits?$select=Vendor,Model,Serial&top=10&$filter=not (Model eq 'HX220C-M5SX' or Model eq 'HX220C-M5S')
```

"In" Operator

The **in** operator returns true if the left operand is equal to one of the values specified in the right operand, otherwise it returns false. The **in** operator accepts numeric and string values.

Values must be specified as a comma-separated list enclosed in parenthesis.

Example: Query RackUnit resources where the Model is either 'HX220C-M5SX' or 'UCSC-C240-M5SN'.

```
GET /api/v1/compute/RackUnits?$filter=Model in ('HX220C-M5SX','UCSC-C240-M5SN')
```

String Functions

"contains" Function

The **contains** function has the following signature:

boolean contains(s string, subst string)

The **contains** function returns true if the second parameter string value is a substring of the first parameter string value, otherwise it returns false.

Example: Query RackUnit resources where the value of the 'Model' property contains 'C240'

```
GET /api/v1/RackUnits?$filter=contains(Model, 'C240')
```

"startsWith" Function

The **startswith** function has the following signature:

boolean startswith(s string, subst string)

The **startswith** function returns true if the first parameter string value starts with the second parameter string value, otherwise it returns false.

Example: Query RackUnit resources where the value of the 'Model' property starts with the prefix 'UCSC-C240'

```
GET /api/v1/RackUnits?$filter=startswith(Model, 'UCSC-C240')
```

"endsWith" Function

The **endswith** function has the following signature:

boolean endswith(string, suffix string)

The **endswith** function returns true if the first parameter string value ends with the second parameter string value, otherwise it returns false.

Example: Query RackUnit resources where the value of the 'Model' property ends with the suffix 'M5'

```
GET /api/v1/RackUnits?$filter=endswith(Model, 'M5')
```

"tolower" Function

The **tolower** function has the following signature:

string tolower(string)

An engineer is managing a DC with 6000 Cisco UCS servers installed and running. The engineer has been asked to identify all resources where the model is in the UCSB family and the available memory is less than or equal to 5 GB.

Which REST API call accomplishes this task?

A. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=not(Model eq 'UCSC') and AvailableMemory le 5000

- B. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=Model eq 'UCSB' and AvailableMemory lt 5000
- C. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=contains(Model, UCSB') and AvailableMemory lt 5000
- D. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=contains(Model, UCSB') and AvailableMemory le 5000

Answer: D

Explanation:

Question: 57

AppGigabitEthernet interface is used as data port for a container on a Cisco Catalyst 9000 Series

Switch. Which two interface configuration options should be used? (Choose two.)

- A. trunk interface
- B. bridged virtual interface
- C. SPAN port
- D. management interface
- E. subinterface

Answer: AC

Explanation:

Question: 58

Which two types of storage are supported for app hosting on a Cisco Catalyst 9000 Series Switch? (Choose two.)

- A. external USB storage
- B. internal SSD
- C. CD-ROM
- D. SD-card
- E. bootflash

Answer: AB

Explanation:

Question: 59

Refer to the exhibit.

```
import http.client
conn = http.client.HTTPSConnection("dnac.cisco.com")
headers = (
    '_runsync': "true",
    '_timeout': "30",
    '_persistbapioutput': "true",
)
conn.request("GET", '/7dna/intent/api/v1/jobs?timestamp=10000',
             headers=headers)
res = conn.getresponse()
data = res.read()
print(data.decode('utf-8'))
```

Which configuration of method and parameter retrieves the health of a laptop connected to the network from Cisco DNA Center?

- A. PUT; network-health;

- B. GET; client-health;
- C. GET; network-device;
- D. POST; network-device;

Answer: B

Explanation:

Get Overall Client Health

GET

/dna/intent/api/v1/client-health

Returns Overall Client Health information by Client type (Wired and Wireless) for any given point of time

<https://developer.cisco.com/docs/dna-center/api/1-3-3-x/#intent-api-v1-3-3-x>

Question: 60

On a Cisco Catalyst 9300 Series Switch, the guest shell is being used to create a service within a container. Which change is needed to allow the service to have external access?

- A. Apply ip nat overload on VirtualPortGroup0.
- B. Apply ip nat inside on Interface VirtualPortGroup0.
- C. Apply ip nat outside on Interface VirtualPortGroup0.
- D. Apply ip nat inside on Interface GigabitEthernet1.

Answer: B

Explanation:

Question: 61

Refer to the exhibit.

```
headers = ( )
try:
    response = requests.get("https://sandboxdnac.cisco.com/dna/intent/api/v1/wireless/profile",
        headers=headers, verify=False)
except requests.exceptions.RequestException as cerror:
    print("Error processing request", cerror)
    sys.exit(1)
```

Which code snippet is required in the headers to successfully authorize wireless information from Cisco DNA Center?

- A. headers = {'X-auth-token': 'fa8426a0-8eaf-4d22-8e13-7c1b16a9370c'}
- B. headers = {'Authorization': 'Basic YWRtaW46R3JhcGV2aW5IMQ=='}
- C. headers = {'Authorization': 'Bearer ASDNFALKJER23412RKDALSNKF'}
- D. headers = {'Content-type': 'application/json'}

Answer: A

Explanation:

Question: 62

Into which two areas are AppDynamics APIs categorized? (Choose two.)

- A. application-centric
- B. analytics-events
- C. database-visibility
- D. platform-side
- E. agent-side

Answer: DE

Explanation:

Question: 63

Refer to the exhibit.

```
node 'default' {  
  cisco_yang_netconf { 'my-config' :  
    target => '<vrf xmlns="http://cisco.com/ns/yang/Cisco-IOS-XR-infra-rsi-cfg"/>'  
    source => '<vrf xmlns="http://cisco.com/ns/yang/Cisco-IOS-XR-infra-rsi-cfg"> <vrf>  
      <vrf-name>VOIP</vrf-name>  
      <create/>  
      <description>Voice over IP</description>  
      <vpn-id>  
        <vpn-oui>875</vpn-oui>  
        <vpn-index>3</vpn-index>  
      </vpn-id>  
    </vrf>  
    <vrf>  
      <vrf-name>INTERNET</vrf-name>  
      <create/>  
      <description>Generic external traffic</description>  
      <vpn-id>  
        <vpn-oui>875</vpn-oui>  
        <vpn-index>22</vpn-index>  
      </vpn-id>  
    </vrf>  
  </vrf>  
  mode => _____,  
  force => _____,  
}
```

This script uses ciscoyang to configure two VRF instances on a Cisco IOS-XR device using the Yang NETCONF type.

Which two words are required to complete the script? (Choose two.)

- A. ensure
- B. commit

C. false

D. replace

E. none

Answer: CD

Explanation:

Question: 64

There is a requirement to securely store unique usernames and passwords. Given a valid username, it is also required to validate that the password provided is correct. Which action accomplishes this task?

A. Encrypt the username, hash the password, and store these values.

B. Hash the username, hash the password, and store these values.

C. Encrypt the username, encrypt the password, and store these values.

D. Hash the username, encrypt the password, and store these values.

Answer: A

Explanation:

Explanation

Question: 65

While developing an application following the 12-factor app methodology, which approach should be used in the application for logging?

A. Write a log to a file in the application directory.

B. Write a log to a file in /var/log.

C. Write the logs buffered to stdout.

D. Write the logs unbuffered to stdout.

Answer: D

Explanation:

Explanation

Question: 66

An application has initiated an OAuth authorization code grant flow to get access to an API resource on behalf of an end user.

Which two parameters are specified in the HTTP request coming back to the application as the end user grants access? (Choose two.)

- A. access token and a refresh token with respective expiration times to access the API resource
- B. access token and expiration time to access the API resource
- C. redirect URI a panel that shows the list of permissions to grant
- D. code that can be exchanged for an access token
- E. state can be used for correlation and security checks

Answer: AB

Explanation:

Explanation

Question: 67

A web application is susceptible to cross-site scripting. Which two methods allow this issue to be mitigated? (Choose two.)

- A. Use only drop downs.
- B. Limit user input to acceptable characters.

- C. Encrypt user input on the client side.
- D. Use AES encryption to secure the script.
- E. Remove all HTML/XML tags from user input.

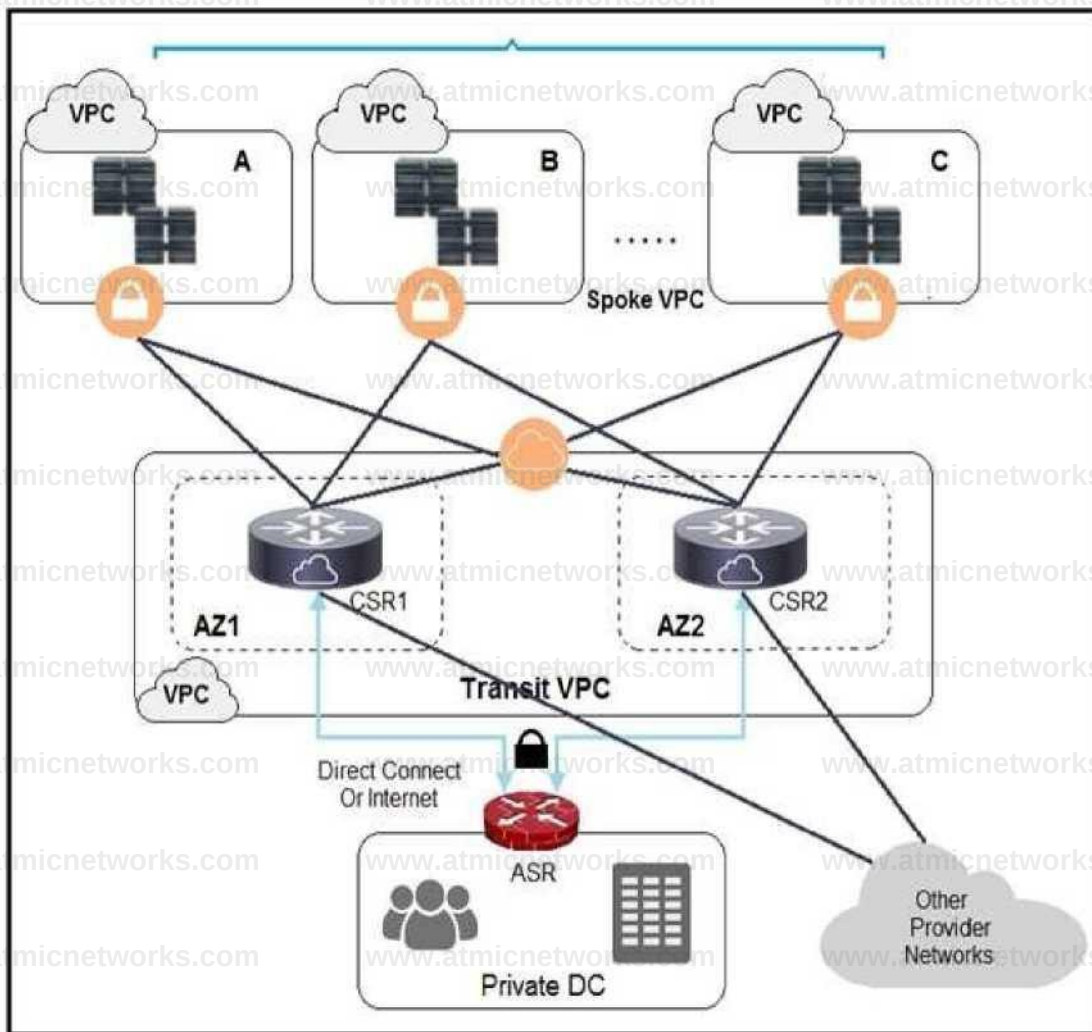
Answer: BE

Explanation:

https://cheatsheetseries.owasp.org/cheatsheets/Cross_Site_Scripting_Prevention_Cheat_Sheet.html

Question: 68

Refer to the exhibit.



A company has extended networking from the data center to the cloud through Transit VPC.

Which two statements describe the benefits of this approach? (Choose two.)

- A. Dynamic routing combined with multi-AZ- deployment creates a robust network infrastructure.
- B. VPC virtual gateways provide highly available connections to virtual networks.
- C. Dedicated VPC simplifies load balancing by combining internal and external web services.
- D. VPC virtual gateways provide more secure connections to virtual networks.
- E. Dedicated VPC simplifies routing by not combining this service with other shared services.

Answer: BD

Explanation:

Question: 69

A developer has just completed the configuration of an API that connects sensitive internal systems.

Based on company policies, the security of the data is a high priority.

Which approach must be taken to secure API keys and passwords?

- A. Embed them directly in the code.
- B. Store them in a hidden file.
- C. Store them inside the source tree of the application.
- D. Change them periodically.

Answer: D

Explanation:

Question: 70

Which two principles are included in the codebase tenet of the 12-factor app methodology? (Choose two.)

- A. An application is always tracked in a version control system.
- B. There are multiple codebases per application.
- C. The codebase is the same across all deploys.
- D. There can be a many-to-one correlation between codebase and application.
- E. It is only possible to have one application deployment per codebase.

Answer: AC

Explanation:

Explanation

Question: 71

What is submitted when an SSL certificate is requested?

A. PEM

B. CRT

C. DER

D. CSR

Answer: D

Explanation:

Explanation

Question: 72

Which two actions must be taken when an observable microservice application is developed? (Choose two.)

A. Know the state of a single instance of a single service.

B. Place "try/except" statement in code.

C. Place log statements in the code.

D. Use distributed tracing techniques.

E. Deploy microservice to multiple datacenters.

Answer: CD

Explanation:

Explanation

Question: 73

Which two countermeasures help reduce the risk of playback attacks? (Choose two.)

A. Store data in a NoSQL database.

B. Implement message authentication (HMAC).

C. Enable end-to-end encryption.

D. Remove stack traces from errors.

E. Use short-lived access tokens.

Answer: BE

Explanation:

Explanation

Question: 74

Which type of file is created from issued intermediate, root, and primary certificates for SSL installation on a server?

A. DER

B. CSR

C. PEM

D. CRT

Answer: C

Explanation:

Explanation

SSL .pem files (concatenated certificate container files), are frequently required for certificate installations when multiple certificates are being imported as one file.

Question: 75

DRAG DROP

Refer to the exhibit.

Description

The addURLObj operation handles configuration related to _L < t model.

This API call is not allowed on the standby unit in an HA pair.

HTTP request

URL

POST /api/fdm/v4/object/urls

Data Parameters

Parameter	Required	Type	Description
name	True	string	An string represents the name of URL object
description	False	string	An string containing the description information of URL object Field level constraints: length must be between 0 and 200 (inclusive). (Note: Additional constraints might exist)
url	True	string	An string value containing the URL address. Field level constraints: cannot be blank or empty, length must be between 0 and 400 (inclusive). (Note: Additional constraints might exist)
type	True	string	A UTF8 string, all letters lower-case, that represents the class-type. This corresponds to the class name.

```
curl -x <item 1> -header 'Content-Type: application/json' -header 'Accept: application/json' -H "O-tem 2>" -d '{ \n  "name": "Blocked URL", \n  "url": "<item 3>", \n  "type": "<item 4>" \n}' 'https://ast0072-pod.xyz.com:33333/api/fdm/v4/object/<item 5>'
```

Refer to the exhibit. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the curl exhibit to complete the cURL request to FirePower Device Manager API to create objects. Not all code snippets are used.

PUT	<item 1>
POST	<item 2>
False	<item 3>
urls	<item 4>
urlobject	<item 5>
description	
Authorization: Bearer exwsxads-sadads0as0d0-1w-1-1w-1-w	
https://www.internetbadguys.com	

Answer:

Explanation:

POST
Authorization Bearer exwsxads-sadads0as0d0-1 w-1 -1 w-1 -w
https 7www internetbadguys.com
urlobject
urls

Question: 76

Which two statements describe advantages of static code analysis over unit tests? (Choose two.)

- A. It checks for potential tainted data where input is not checked.

- B. It enforces proper coding standards and style.
- C. It performs a quick analysis of whether tests will pass or fail when run.
- D. It checks for race conditions in threaded applications.
- E. It estimates the performance of the code when run.

Answer: AB

Explanation:

Explanation

Question: 77

Refer to the exhibit.

FROM alpine:3.7

RUN apk add --no-cache bash

Which additional line results in the output of Test 1 upon execution of the docker run --rm devnet 1 command in a Dockerfile with this content?

- A. CMD ["/bin/echo", "Test"]
- B. RUN ["/bin/echo", "Test"]

C. ENTRYPOINT ["/bin/echo", "Test"]

D. CMD ["/bin/echo Test"]

Answer: A

Explanation:

Explanation

Question: 78

Which two techniques protect against injection attacks? (Choose two.)

A. input validation

B. trim whitespace

C. limit text areas to 255 characters

D. string escaping of user free text and data entry

E. only use dropdown, checkbox, and radio button fields

Answer: AD

Explanation:

Explanation

Question: 79

Refer to the exhibit.

```

apiVersion: v1
clusters:
- cluster:
    certificate-authority: fake-ca-file
    server: https://1.2.3.4
    name: development
- cluster:
    insecure-skip-tls-verify: true
    server: https://5.6.7.8
    name: scratch
contexts:
- context:
    cluster: development
    namespace: frontend
    user: developer
    name: dev-frontend
- context:
    cluster: development
    namespace: storage
    user: developer
    name: dev-storage
- context:
    cluster: scratch
    namespace: default
    user: experimenter
    name: exp-scratch
current context: ""
kind: Config
preferences: {}
users:
- name: developer
  user:
    client-certificate: fake-cert-file
    client-key: fake-key-file
- name: experimenter
  user:
    password: some-password
    username: exp

```

A kubeconfig file to manage access to clusters is provided. How many clusters are defined and which of them are accessed using username/password authentication versus certificate?

A. two clusters; scratch

- B. three clusters; scratch
- C. three clusters; development
- D. two clusters; development

Answer: A

Explanation:

Explanation

Question: 80

Which two strategies are used to protect personally identifiable information? (Choose two.)

- A. Encrypt data in transit.
- B. Encrypt hash values of data.
- C. Encrypt data at rest.
- D. Only hash usernames and passwords for efficient lookup.
- E. Only encrypt usernames and passwords for efficient lookup.

Answer: AC

Explanation:

Explanation

Question: 81

The response from a server includes the header ETag: W/"7eb8b94419e371767916ef13e0d6e63d".

Which statement is true?

- A. The ETag has a Strong validator directive.
- B. The ETag has a Weak validator directive, which is an optional directive.
- C. The ETag has a Weak validator directive, which is a mandatory directive.

D. The ETag has a Strong validator directive, which it is incorrectly formatted.

Answer: B

Explanation:

Explanation

<https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/ETag>

The ETag HTTP response header is an identifier for a specific version of a resource. It lets caches be more efficient and save bandwidth, as a web server does not need to resend a full response if the content has not changed. Additionally, etags help prevent simultaneous updates of a resource from overwriting each other

Syntax:

ETag: W/"<etag_value>"

Directives:

W/ (Optional)

'W/' (case-sensitive) indicates that a weak validator is used. Weak etags are easy to generate, but are far less useful for comparisons.

"<etag_value>"

Entity tag uniquely representing the requested resource. They are a string of ASCII characters placed between double quotes, like "675af34563dc-tr34"

Question: 82

Refer to the exhibit.

```
open_file = open("text_file.txt", "r")
read_file = open_file.read()
print(read_file)
```

A developer created the code, but it fails to execute. Which code snippet helps to identify the issue?

```
A try:
    open_file = open("text_file.txt", "r")
    read_file = open_file.read()
    print(read_file)
except:
    print("File not there")
```

```
B try:
    print("File not there")
except:
    open_file = open("text_file.txt", "r")
    read_file = open_file.read()
    print(read_file)
```

```
C- try:
    open_file = open("text_file.txt", "r")
    read_file = open_file.read()
    print(read_file)
except:
    print("File not there")
catch:
    error(read_file)
```

```
0- open_file = open("text_file.txt", "r")
read_file = open_file.read()

print(read_file)
except:
    print("File not there")
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Explanation:

```
>>> read_file = open("me.txt", "r")
```

Traceback (most recent call last):

File "<stdin>", line 1, in <module>

FileNotFoundError: [Errno 2] No such file or directory: 'me.txt'

```
>>>
```

Question: 83

Which HTTP status code indicates that a client application is experiencing intentional rate limiting by the server?

- A. 202
- B. 401
- C. 429
- D. 503

Answer: C

Explanation:

Explanation

<https://httpstatuses.com/429>

Question: 84

Which database type should be used to store data received from model-driven telemetry?

- A. BigQuery database
- B. Time series database

C. NoSQL database

D. PostgreSQL database

Answer: B

Explanation:

Question: 85

DRAG DROP

Refer to the exhibit.

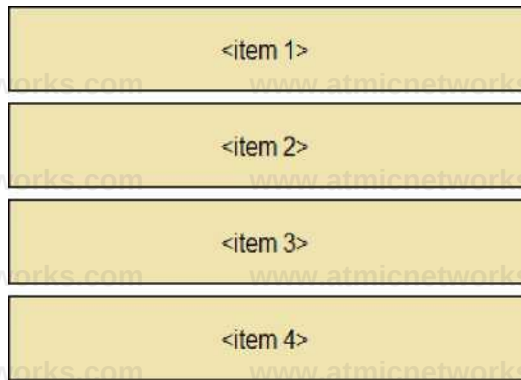
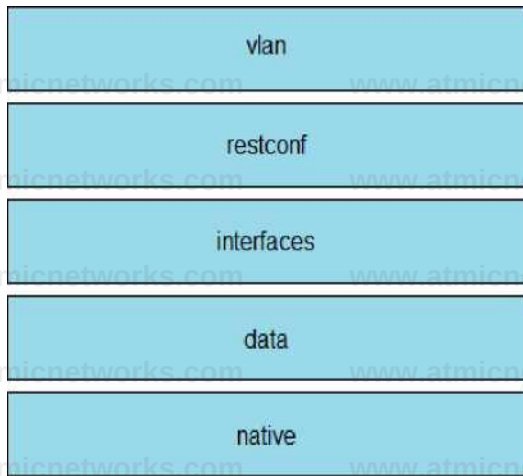
```

module: Cisco-IOS-XE-vlan
augment /ios:native/ios:vlan:
  +-rw access-map* [name]
  I +-rw name          string
  I +-rw value?         uint16
  I +-rw action?        enumeration
  | +-rw match
  |   +-rw ipv6
  I   | +-rw address* string
  I   +-rw ip
  I     +-rw address*  string
  +-rw configuration* [vlan-id]
  | +-rw vlan-id       union
  I +-rw ip
  I | +-rw flow
  | |   +-rw monitor* [flow-monitor]
  I |   +-rw flow-monitor string
  I |   +-rw input?       empty
  I |   +-rw output?      empty
  I +-rw ipv6
  I | +-rw nd
  I | | +-rw suppress!
  I | |   +-rw attach-policy? string
  I | +-rw dhcp
  I |   +-rw guard)
  I |   +-rw attach-policy? string
  | +-rw member
  I   +-rw evpn-instance
  |   | +-rw evpn-instance? uint16
  I   | +-rw vni?            uint32
  I   +-rw vni?            uint32
  +-rw filter* [word]

```

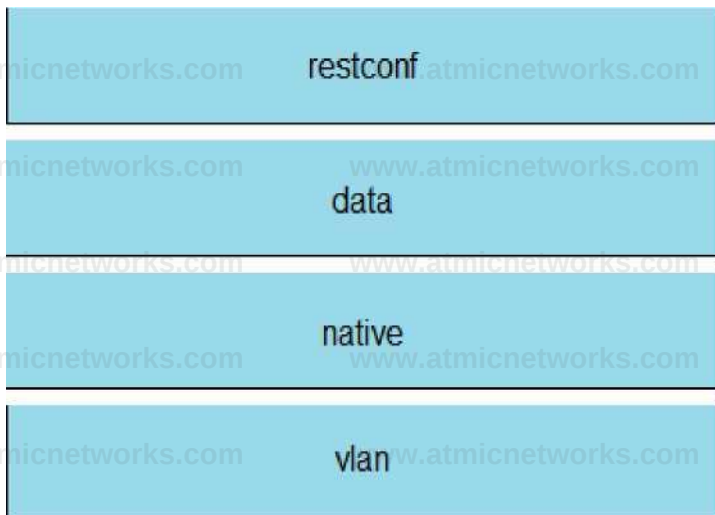
<https://ios-xe-mgmt.cisco.com:9443/<item 1>/<item 2>/<item 3>/<item 4>/>

Refer to the exhibit. Drag and drop parts of the URL from the left onto the item numbers on the right that match the missing sections in the exhibit to create the appropriate RESTCONF URL to query the VLAN configuration given this YANG model. Not all URL parts are used.



Answer:

Explanation:



Question: 86

A heterogeneous network of vendors and device types needs automating for better efficiency and to enable future automated testing. The network consists of switches, routers, firewalls and load balancers from different vendors, however they all support the NETCONF/RESTCONF configuration standards and the YAML models with every feature the business requires. The business is looking for a buy versus build solution because they

cannot dedicate engineering resources, and they need configuration diff and rollback functionality from day 1.

Which configuration management for automation tooling is needed for this solution?

- A. Ansible
- B. Ansible and Terraform
- C. NSO
- D. Terraform
- E. Ansible and NSO

Answer: C

Explanation:

<https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2020/pdf/DEVLIT-4019.pdf>

Question: 87

An automated solution is needed to configure VMs in numerous cloud provider environments to connect the environments to an SDWAN. The SDWAN edge VM is provided as an image in each of the relevant clouds and can be given an identity and all required configuration via cloud-init without needing to log into the VM once online.

Which configuration management and/or automation tooling is needed for this solution?

- A. Ansible
- B. Ansible and Terraform
- C. NSO
- D. Terraform
- E. Ansible and NSO

Answer: D

Explanation:

Question: 88

Refer to the exhibit.

```
name: Configure Interfaces
with items: "({interfaces})!"
netconf_config:
  «: *host_info
  xml: |
    <config>
      <interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
        <interface>
          <name>{{(item.interface_typeIH (item.interface_id) }}</name>
          <description>{{(item.description)}}</description>
          <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
          <enabled>true</enabled>
          <ipv4 xmlns="urn:ietf:params:xml:ns:yang:ietf-ip">
            <address>
              <ip>{{(item.ip address)}}</ip>
              <netmask>{{(item.subnet mask)}}</netmask>
            </address>
          </ipv4>
        </interface>
      </interfaces>
    </config>
```

The Ansible playbook is using the netconf_module to configure an interface using a YANG model. As part of this workflow, which YANG models augment the interface?

- A. ietf-interfaces and ietf-ip
- B. iana-if-type and ietf-interfaces
- C. ietf-ip and openconfig-interface
- D. ietf-ip and iana-if-type

Answer: B

Explanation:

Question: 89

Refer to the exhibit.

```
---
- name: IOS XE Configuration
  hosts: ios_xe
  connection: local
  gather_facts: false

  tasks:
    - name: IOS NTP
      ios_ntp:
        provider: "{{ creds }}"
        server: 10.0.255.10
        source_int: GigabitEthernet2
        logging: false
```

Which key value pair from the ios_ntp Ansible module creates an NTP server peer?

- A. state: present
- B. state: True
- C. config: present
- D. config: True

Answer: A

Explanation:

ios_ntp : Manages core NTP configuration

state : Manage the state of the resource

Choices : present | absent

Example:

```
# Set new NTP server and source interface
```

```
- ios_ntp:
```

```
server: 10.0.255.10
```

```
source_int: Loopback0
```

```
logging: false
```

```
state: present
```

https://docs.ansible.com/ansible/latest/modules/ios_ntp_module.html

Question: 90

Refer to the exhibit.

```
name: VRFs
```

```
ios_vrf:
```

```
  vrf: "{{local_vrfs}}" state: present
```

```
  purge: yes
```

The YAML represented is using the `ios_vrf` module. As part of the Ansible playbook workflow, what is the result when this task is run?

- A. VRFs not defined in the `host_vars` file are removed from the device.
- B. VRFs not defined in the `host_vars` file are added to the device, and any other VRFs on the device remain.

C. VRFs defined in the host_vars file are removed from the device.

D. VRFs are added to the device from the host_vars file, and any other VRFs on the device are removed.

Answer: D

Explanation:

Question: 91

Refer to the exhibit.

```
name: Configure Interfaces with_items: "{{interfaces}}" netconf config:
  <: *host_info
  xml: |
    <config>
      <interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"> <interface>
        <name>{{ item, interface_type }} {{ item. interface_id }}</name>
        <description>{{ item.description }}</description>
        <type xmlns:ianaif="urn:ietf:params:xml:ns:yang:iana-if-type">ianaif:ethernetCsmacd</type>
        <enabled>true</enabled>
        <ipv4 xmlns="urn:ietf:params:xml:ns:yang:ietf-ip"> <address>
          <ip>{{ item.ip_address }}</ip>
          <netmask>{{ item, subnet_mask }}</netmask>
        </address>
        </ipv4>
      </interface>
    </interfaces>
  </config>
```

As part of the Ansible playbook workflow, several new interfaces are being configured using the netconf_config module. The task references the interface variables that are unique per device.

In which directory is the YAML file with these variables found?

- A. host_vars directory
- B. home directory
- C. group_vars directory
- D. current working directory

Answer: A

Explanation:

https://docs.ansible.com/ansible/latest/user_guide/intro_inventory.html#organizing-host-and-group-variables

Question: 92

A developer needs to configure an environment to orchestrate and configure. Which two tools should be used for each task? (Choose two.)

- A. Puppet for orchestration
- B. Terraform for orchestration
- C. Terraform for configuration
- D. Ansible for orchestration
- E. Ansible for configuration

Answer: BE

Explanation:

Question: 93

Application sometimes store configuration as constants in the code, which is a violation of strict separation of configuration from code. Where should application configuration be stored?

- A. environment variables
- B. YAML files
- C. Python libraries
- D. Dockerfiles
- E. INI files

Answer: A

Explanation:

Question: 94

Refer to the exhibit.

```
import sys, requests

URL = 'http://ios-xe-nigrjt.cisco.com: 9 4 43'
USER = 'root'
PASS = 'Cisco0123'

url = URL + "/restconf/data/ietf-interfaces:interfaces-state"
headers = {'content-type': 'application/vnd.yang-data+json', 'accept': 'application/yang-data+json'}

try:
    result = requests.get(url, auth=(USER,PASS), headers=headers)
    r_json = result.json()
    flagDown = 0
    for record in r_json["ietf-interfaces:interfaces"] ["interface"]:
        print("{0:<35}".format("interface: " + record["name"]), end="")
        print("{0:<8}".format("ip: "), end="")
        if 'address' in record["ietf-ip:ipv4"]:
            print("{0:<15}".format(record["ietf-ip:ipv4"] ["address"] [0] ["ip"]), end="")
        else:
            print("{0:<15}".format(record["No IPv4"], end=""))
        print (" {0 :<9}''.format ("status : ") , end="")
        print(str(record["enabled"]))
        if (record["enabled"] ==False) :
            flagDown=1
    print ("")
    if(flagDown):
        print("At least one interface is down")
    else:
        print("All interfaces are up")

except:
    print("Exception: " + str(sys.exc_info()[0]) + " " + str(sys.exc_info()[1]))
    print("Error: " + str(result.status code), result.text)
```

What is the output of this IOS-XE configuration program?

- A. interface operational status in IPv6 addresses

B. interface administrative status in IPv4 addresses

C. interface operational status in IPv4 addresses

D. interface administrative status in IPv6 addresses

Answer: B

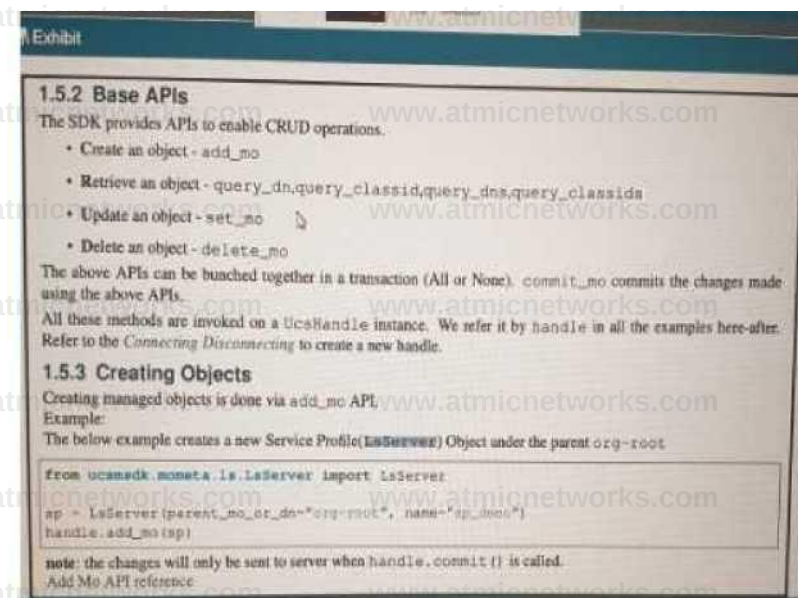
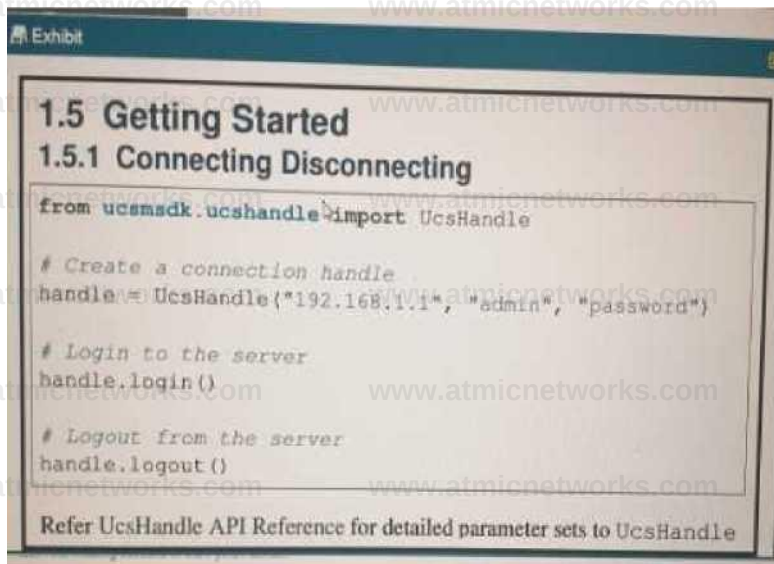
Explanation:

Question: 95

DRAG DROP

Refer to the exhibit.

```
*** Instantiate a UCS Service Profile from template and associate ***  
from ucsm.sdk.ucshandle import UcsHandle  
from ucsm.sdk.mometa.ls.LsBinding import LsBinding  
from ucsm.sdk.mometa.ls.LsServer import LsServer  
  
HANDLE = <item1>(  
    "ucs-devcore.cisco.com",  
    "admin",  
    "password"  
)  
  
HANDLE.<item2>()  
  
SP_FROM_TEMPLATE = <item3>(  
    parent_mo_or_dn='org-root/org-devnet',  
    name='devcore-server-01',  
    src_tmpl_name='devcore_template',  
    type='instance'  
)  
  
LsBinding(  
    parent_mo_or_dn=<item4>,  
    pn_dn='sys/chassis-7/blade-3'  
)  
  
HANDLE.<item5>(SP_FROM_TEMPLATE, modify_present=True)  
HANDLE.<item6>()  
HANDLE.<item7>()
```

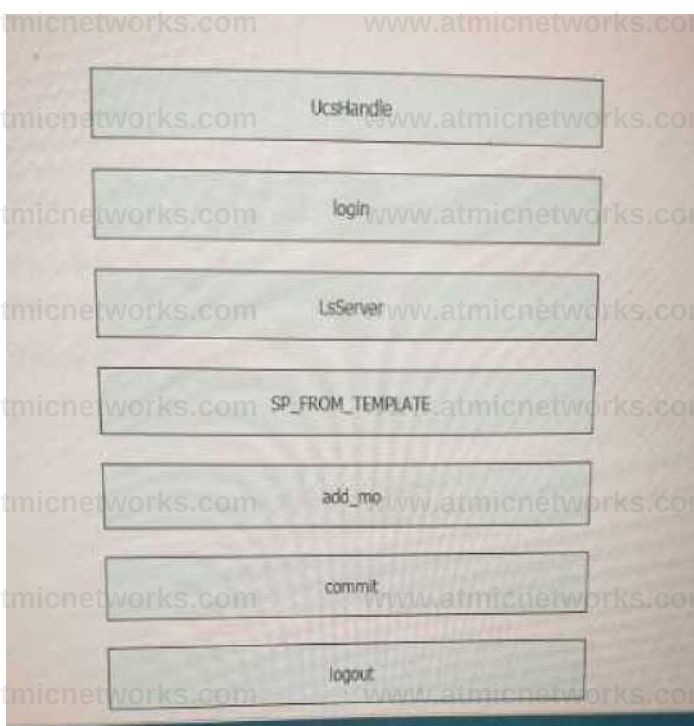


Refer to the exhibit above and click on the resource tabs in the top left corner to view resources to help with this question. Python code that uses the UCS Python SDK is instantiating a service profile named "devcore-server-01" from service profile template "device-template", then associating the service profile instance to blade 3 in chassis 7. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the Python exhibit.



Answer:

Explanation:



Question: 96

DRAG DROP

1.5 Getting Started

1.5.1 Connecting Disconnecting

```
from ucsmsdk.ucshandle import UcsHandle
```

```
# Create a connection handle
```

```
handle = UcsHandle("192.168.1.1", "admin", "password")
```

```
# Login to the server handle.login()
```

```
# Logout from the server handle.logout()
```

Refer UcsHandle API Reference for detailed parameter sets to UcsHandle

This module contains the general information for ComputePooledSlot ManagedObject.

class

ucsmsdk.mometa.compute.ComputePooledSlot.ComputePooledSlot(parent mo or dn, chassis_id, slot_id, "kwargs") *[source]*

Bases: *ucsmsdk.ucsmo.ManagedObject*

This is ComputePooledSlot class.

consts = < ucsmsdk. mometa.compute.ComputePooledSlot.ComputePooledSlot- Consts instance >

mo_meta = <ucsmsdk.ucscoremeta.MoMeta object > naming_props = set([u'chassisld', u'slotld']) prop_map = {'dn': 'dn', 'status': 'status', 'sad': 'sad', 'slotld': 'slot_id', 'assigned': 'assigned', 'owner': 'owner', 'prevAssignedToDn': 'prev_assigned_to_dn', 'childAction': 'child_action', 'poolableDn': 'poolable_dn', 'chassisld': 'chassis_id', 'm': 'rn', 'assignedToDn': 'assigned_to_dn'}

prop_meta = {'dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad250>, 'status': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233adsdo>, 'sad': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxt233ad4do>, 'assigned_to_dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at ox123392b!o>, 'assigned': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi23392bdo>, 'owner': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad2do>, 'child_action': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233adido>, 'poolable_dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad350>, 'chassis_id': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi23392ado>, 'slot_id': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad550>, 'prev_assigned_to_dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad3do>, 'rn': <.ucsmsdk.ucscoremeta.MoPropertyMeta object at oxi233ad45<>}

*class ucsmsdk.mometa. compute. ComputePool.ComputePool(porent_mo_or_dn, name, **kwargs)* *[source]*

Bases: `ucsmsdk.ucsmo.ManagedObject`

This is `ComputePool` class.

```
consts = <ucsmsdk.mometa.compute.ComputePool.ComputePoolConsts instance>
mo_meta = <ucsmsdk.ucscoremeta.MoMeta object> naming_props = set([u'name'])
prop_map = {'dn': 'dn', 'status': 'status', 'policyLevel': 'policy_level', 'assignmentOrder':
'assignment_order', 'sad': 'sad', 'policyowner': 'policyowner', 'assigned': 'assigned', 'intld':
'int_id', 'childAction': 'child_action', 'name': 'name', 'descr': 'descr', 'rn': 'rn', 'size': 'size'}
prop_meta = {'dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230f8f90>,
'status': <ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230ed3d0>, 'sad':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230ed2d0>, 'assigned':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230f8d90>, 'int_id':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230edo50>, 'assignmentorder':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230f8e10>, 'childodion':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230f8ego>, 'name':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230edodo>, 'descr':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230f8f10>, 'policyowner':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230edido>, 'policy_level':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230edi50>, 'rn':
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230ed250>, 'size':
ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi230ed350>}
```

1.5.2 Base APIs

The SDK provides APIs to enable CRUD operations.

- Create an object - `add_mo`
- Retrieve an object - `query_dn, query_classid, query_dns, query_classids`
- Update an object - `set_mo`
- Delete an object - `delete_mo`

The above APIs can be bunched together in a transaction (All or None). `commit_mo` commits the changes made using the above APIs.

All these methods are invoked on a `UcsHandle` instance. We refer it by `handle` in all the examples here-after. Refer to the *Connecting Disconnecting* to create a new `handle`.

1.5.3 Creating Objects

Creating managed objects is done via `add_mo` API.

Example:

The below example creates a new Service Profile(`LsServer`) Object under the parent `org-root`

```
from ucsmsdk.mometa.Ls.LsServer import LsServer

sp = LsServer(parent_mo_or_dn="org-root", name="sp_demo")
handle.add_mo(sp)
```

note: the changes will only be sent to server when `handle.commit()` is called.

Add Mo API reference

class ucsmsdk.mometa. Is.LsRequirement. LsRequirement(parent mo_or dn, "kwargs)
[source)

Bases: ucsmsdk.ucsmo.NanagedObject

This is LsRequirement class.

```
consts = <ucsmsdk.mometa.ls.LsRequirement.LsRequirementConsts instance> mo_meta  
= <ucsmsdk.ucscoremeta.MoMeta object> narning_props = set([])  
prop_map = {'dn': 'dn', 'status': 'status', 'operState': 'oper_state', 'qualifier': 'qualifier',  
'sad': 'sad', 'pnDn': 'pn_dn', 'restrictMigration': 'restrict_migration', 'issues': 'issues',  
'operName': 'oper_name', 'pnPoolDn': 'pn_pool_dn', 'name': 'name', 'computeEpDn':  
'compute_ep_dn', 'rn': 'rn', 'childAction': 'child_action', 'as- signedToDn':  
'assigned_to_dn'}  
prop_meta = {'dn': <ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi22cf- bfio>,  
'status': <ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e892790>, 'qualifier':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xt2e892350>, 'sad':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g26go>, pn_pool_dn':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g2gdo>, 'assigned_to_dn':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi22cjb- dgo>, 'oper_state':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g2ago>, 'issues':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g2450>, 'child_action':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi22cfbggo>, 'name':  
cucsmsdk.ucscoremeta.MoPropertyMeta object at 0xt2e8g2ido>, 'oper_name':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e892aio>, 'm':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g2090>, 'restrict_migration':  
cucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e892iio>, 'pndn':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi2e8g26do>, 'compute_ep_dn':  
<ucsmsdk.ucscoremeta.MoPropertyMeta object at 0xi22cfi)350>}
```

```

""" Create UCS Server Pool and associate to template """
from ucsm.sdk.ucshandle import UcsHandle
from ucsm.sdk.mometa.compute.ComputePool import ComputePool
from ucsm.sdk.mometa.compute.ComputePooledSlot import ComputePooledSlot
from ucsm.sdk.mometa.ls.LsRequirement import LsRequirement

HANDLE = <item 1>{
    "sandbox-ucsm1.cisco.com",
    "admin",
    "password"
}
HANDLE.login()

SERVER_POOL = <item 2>{
    parent_mo_or_dn="org-root/org-devnet",
    name="devcore_pool"
}
HANDLE.<item 3>(SERVER_POOL, modify_present=True)
for blade in HANDLE.query_classid(
    "computeBlade",
    filter_str="(chassis_id, '7')":
    SERVER = <item 4>{
        parent_mo_or_dn=SERVER_POOL,
        chassis_id=blade.chassis_id,
        slot_id=blade.slot_id
    }
    HANDLE.add_mo(SERVER, modify_present=True)
HANDLE.commit()

SP_TEMPLATE = <item 5>{
    parent_mo_or_dn="org-root/org-devnet/ls-devcore_template",
    name="devcore_pool"
}
HANDLE.add_mo(SP_TEMPLATE, modify_present=True)
HANDLE.<item 6>()

HANDLE.<item 7>()

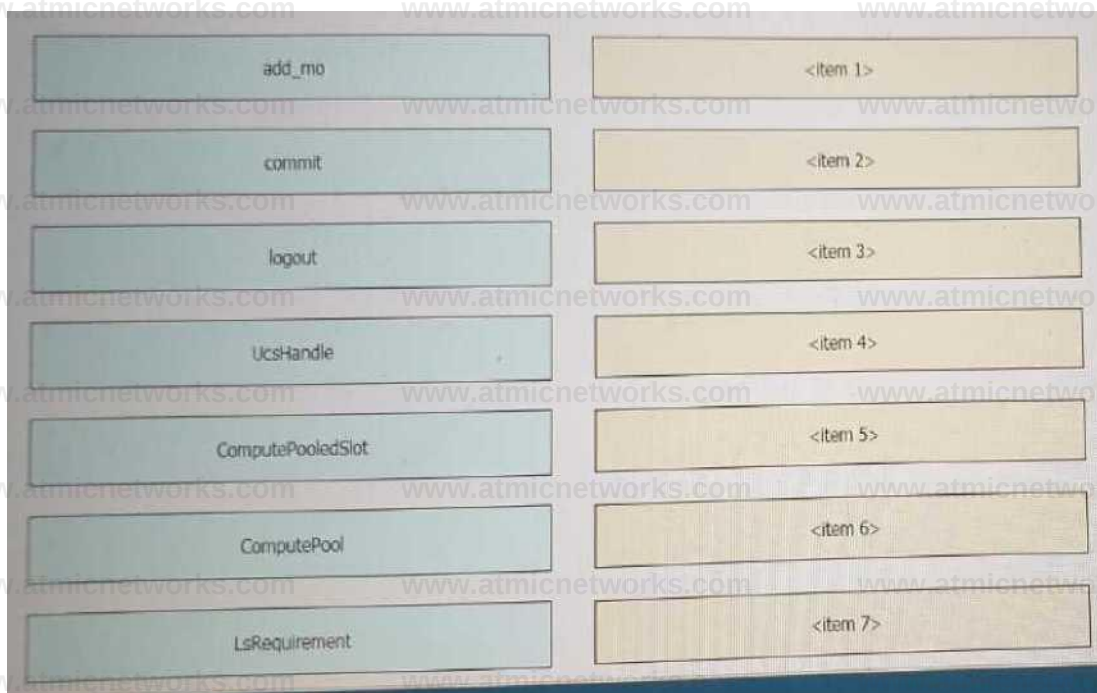
```

Refer to the exhibit above and click on the resource tabs in the top left corner to view resources to help with this question. Python code using the UCS Python SDK is creating a server pool named "devcore_pool" and populating the pool with all servers from chassis 7 and then the server pool is associated to existing service profile template "devcore_template". Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the python exhibit.

Refer to the above and click on the resource labs in the top left corner to view resources to help with this question.

Python code using the UCS Python SDK is creating a server pool named "devcore_pool" and populating the pool with all servers from chassis 7, and then the server pool is associated to existing

Service Profile template "devcore_template" Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the Python exhibit.



Answer:

Explanation:

UcsHandle

ComputePool

ComputePooledSlot

add_mo

LsRequirement

commit

logout

Question: 97

DRAG DROP

Refer to the exhibit.

Sselect Qi response

HTTP

The Sselect query option allows clients to request a specific set of properties for each entity or complex type. The value of the Sselect option is a comma-separated list of property names.

The Sselect option is not intended to be a query filter. For query filters, see the StHter operator.

The ability to select which properties are returned in the HTTP response can help to minimize network traffic between the client and the intersight Web service and improve the performance of the client. This can be especially useful for mobile applications.

Example: Query compute.RackInit managed objects, where each response managed object is represented with three properties: Vendor, Model, and Serial (instead of having the full JSON output for compute.RackUnifi). Note the 'Mod' is always included in the response regardless of what is specified in the Sselect query parameter.

```
CK? Zap". /V t/cotspu to/nacktlhlt? Ssoi oct-Vnndor, Hoda 1,Serial
```

HTTP Response

```
'Result*'i I
```

```
•Huda): 'HX2WC-HWX', 'Hold': '9S69b<lb9a9<c0<0001J7f6<d*', 'Serial': 'HWlliaOSW', "Vendor": '*Ci*co Syatea  
Inc'
```

```
f 'Mader: •VCSC-CMtMtMW, 'hoid't *3»6Hf3be»4cO<OOOl>»#<H*, ■Serial's •«P?117O4KH".  
'Vendor': 'Cisco System Inc' b
```

```
■Nadel's "KXIWC-KSSX',
```

```
•Mold:J *5J6S6faba94c040001J7fcIJ *,
```

```
GET /api/v1/compute/RackUnits?$select=Vendor,Model,Serial
```

HTTP Response:

```
{
  "Results": [
    {
      "Model": "HX220C-M5SX",
      "Moid": "59696db9a94c04000137f683",
      "Serial": "W2P21120SP9",
      "Vendor": "Cisco Systems Inc"
    },
    {
      "Model": "UCSC-C240-M5SN",
      "Moid": "59696f3ba94c04000137f8d4",
      "Serial": "W2P211704KM",
      "Vendor": "Cisco Systems Inc"
    },
    {
      "Model": "HX220C-M5SX",
      "Moid": "59696faba94c04000137fc13",
      "Serial": "W2P21120SP1",
      "Vendor": "Cisco Systems Inc"
    }
  ]
}
```

Logical Opera

"Equal" Operator

The **eq** operator returns true if the left operand is equal to the right operand, otherwise it returns false. The **eq** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where Serial equals to "WZP211704KM"

```
GET /api/v1/compute/RackUnits?$filter=Name eq 'WZP211704KM'
```

Example: Query RackUnit resources where the value of the 'Model' property is equal to 'UCSC-C240-M5SN'

```
GET /api/v1/compute/RackUnits?$filter=Model eq 'UCSC-C240-M5SN'
```

Example: Query RackUnit resources where the number of CPU cores is 24. Numeric values are specified without quotes.

```
GET /api/v1/compute/RackUnits?$filter=NumCpuCores eq 24
```

Example: Query Audit log records where 'CreationTime' is '2018-06-20T05:31:38.862Z'.

```
GET /api/v1/aaa/AuditRecords?$filter=CreateTime eq 2018-06-20T05:31:38.862Z
```

"Not Equal" Operator

The **ne** operator returns true if the left operand is not equal to the right operand, otherwise it returns false. The **ne** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where Serial is not equal to "WZP211704KM"

```
GET /api/v1/compute/RackUnits?$filter=Name ne 'WZP211704KM'
```

Example: Query RackUnit resources where the value of the 'Model' property is not equal to 'UCSC-C240-M5SN'

```
GET /api/v1/compute/RackUnits?$filter=Model ne 'UCSC-C240-M5SN'
```

```
* Iwerijht REST API Operations rackunit iron body * (
  'request method' i"rites i>*, 'resource path': (
    'https://www.interalght.CO.B/ap/*!/'♦' com
```

tinware jeon body • (

```
request met hod{i "■ t r air, J>",
'resource path' i 'https:// Zwww. iMecsight .com/api/vl /Unaware/*;fr !• ', 'requaetbody*:(
"DirectOowload' if),
NetworkShare't{
'MapType': 'ww",
'<it<m S>': 'nv_upgrad«_full*,
*Btp8ervar*t(
"Locationlink' i 'http://10.10.10.10/uc8-c?4!lm4 huu
```

4.0.2h.jsoc

```
h
"UpgradeType"t"<itas S>“, "Server":”
```

```
RESPONSE * requests.request(
    ctmethod"zackunlt {acn body!1 request method}].
    utl-BURL»rackunit {son body!'raaource_peth'1, auth-AVTH
```

```
finswara jaon_body['request body'11'Ser ver') * (
    json.loads(RESPONSE.tert)! 'Remits' |(0)| 'it«n ^ '|
```

RESPONSE “requests.request!”

```
method«fironware jsari_bndy| 'request method' |, url=BVRLtfiimwareJson body!'resource path'], data-  
ison.dorapatfinivare jaoa body;'request body' ))(auth=AUTU
```

Refer to the exhibit above and click on the resource tabs in the top left corner to view resources to help with this question. The script uses the Cisco Intersight REST API. Drag and drop the code snippets from the left onto the item numbers on the right to match the missing sections in the Python script to update the firmware on specific Cisco Intersight USC rack server.DMZ R-L3-ADJM. Not all code snippets are used.

PUT	<item 1>
POST	<item 2>
GET	<item 3>
Upgradeoption	<item 4>
Upgrades	<item 5>
Moid,Model,AssetTag&+\$filter=Model ne 'DMZ-R-L3-ADJM'	<item 6>
Moid,Model,AssetTag&+\$filter=AssetTag eq 'DMZ-R-L3-ADJM'	<item 7>
Moid	
network_upgrade	
ObjectType	

Answer:

Explanation:

1. GET
2. eq '\DMZ ...
3. POST
4. Upgrades
5. Upgradeoption
6. network_upgrade
7. Moid

https://github.com/CiscoDevNet/intersight-rest-api/blob/main/intersight_firmware.py

Question: 98

```

module: ietf-routing
+--ro routing-state
|   +--ro routing-instance* [name]
|   |   +--ro name          string
|   |   +--ro type?         identityref
|   |   +--ro router-id?    yang:dotted-quad
|   |   +--ro interfaces
|   |   |   +--ro interface* if:interface-state-ref
|   |   +--ro routing-protocols
|   |   |   +--ro routing-protocol* [type name]
|   |   |   |   +--ro type identityref
|   |   |   |   +--ro name  string
|   |   +--ro ribs
|   |   |   +--ro rib* [name]
|   |   |   |   +--ro name          string
|   |   |   |   +--ro address-family identityref
|   |   |   |   +--ro default-rib? boolean (multiple-ribs)?
|   |   |   |   +--ro routes
|   |   |   |   |   +--ro route* [destination-prefix]
|   |   |   |   |   |   +--ro route-preference? route-preference
|   |   |   |   |   |   +--ro destination-prefix string
|   |   |   |   |   |   +--ro metric?          uint32
|   |   |   |   |   |   +--ro next-hop
|   |   |   |   |   |   |   +--ro (next-hop-options)
|   |   |   |   |   |   |   |   +--:(simple-next-hop)
|   |   |   |   |   |   |   |   |   +--ro outgoing-interface? string
|   |   |   |   |   |   |   |   |   +--ro next-hop-address?  string
|   |   |   |   |   |   |   |   +--:(special-next-hop)
|   |   |   |   |   |   |   |   |   +--ro special-next-hop?  enumeration
|   |   |   |   |   |   |   +--ro source-protocol identityref
|   |   |   |   |   |   |   +--ro active?          empty
|   |   |   |   |   |   |   +--ro last-updated?    yang:date-and-time
|   |   |   |   |   |   |   +--ro update-source?   string
|   |   +--rw routing
|   |   |   +--rw routing-instance* [name]
|   |   |   |   +--rw name          string
|   |   |   |   +--rw type?         identityref
|   |   |   |   +--rw enabled?      boolean
|   |   |   |   +--rw router-id?    yang:dotted-quad (router-id)?
|   |   |   |   +--rw description?  string
|   |   |   |   +--rw interfaces
|   |   |   |   |   +--rw interface* if:interface-ref
|   |   |   +--rw routing-protocols
|   |   |   |   +--rw routing-protocol* [type name]
|   |   |   |   |   +--rw type identityref
|   |   |   |   |   +--rw name  string
|   |   |   |   |   +--rw description? string
|   |   |   +--rw static-routes
|   |   +--rw ribs
|   |   |   +--rw rib* [name]
|   |   |   |   +--rw name          string
|   |   |   |   +--rw address-family? identityref
|   |   |   |   +--rw description?  string

```

```
{
  "errors": {
    "error": [
      {
        "error-message": "object is not writable: /rt:routing-
state/rt:routing-instance",
        "error-path": "/ietf-routing:routing-state/routing-instance=default",
        "error-tag": "malformed-message",
        "error-type": "application"
      }
    ]
  }
}
```

https://ion-xe-mgmt-latest.cisco.com:9443/restconf/data/ietf-routing:routing-
state/routing-instance=default

Refer to the exhibit above and click on the IETF Routing tab in the top left corner to help with this question. A developer is trying to update the routing instance by adding a new route to the routes list using the URL in the exhibit. What action must be taken to fix the error being received?

- A. Fix the body being sent to update the routes list.
- B. Update the authorization credentials.
- C. Change the url to "/ietf-routing:routing/routing-instance=default".
- D. Change the URL to "/ietf-routing:routing-instance/default".
- E. Change the HTTP Method being used to make the change

Answer: C

Explanation:

Question: 99

DRAG DROP

Refer to the exhibit.

```

module: ietf-ip
augment /if:interfaces/if:interface:
  +--rw ipv4!
    +--rw enabled?          boolean
    +--rw forwarding?       boolean
    +--rw mtu?              uint16
    +--rw address* [ip]
      +--rw ip              inet:ipv4-address-no-zone
      +--rw (subnet)
        +--:(prefix-length)
          +--rw prefix-length?  uint8
        +--:(netmask)
          +--rw netmask?       yang:dotted-quad {ipv4-non-
contiguous-netmasks}?
    +--rw neighbor* [ip]
      +--rw ip              inet:ipv4-address-no-zone
      +--rw link-layer-address  yang:phys-address
  +--rw ipv6!
    +--rw enabled?          boolean
    +--rw forwarding?       boolean
    +--rw mtu?              uint32
    +--rw address* [ip]
      +--rw ip              inet:ipv6-address-no-zone
      +--rw prefix-length  uint8
    +--rw neighbor* [ip]
      +--rw ip              inet:ipv6-address-no-zone
      +--rw link-layer-address  yang:phys-address
    +--rw dup-addr-detect-transmits?  uint32
    +--rw autoconf
      +--rw create-global-addresses?  boolean
      +--rw create-temporary-addresses? boolean {ipv6-
privacy-autoconf}?
    +--rw temporary-valid-lifetime?  uint32 {ipv6-privacy-
autoconf}?

```

```

module: ietf-interfaces
  +--rw interfaces
    +--rw interface* [name]
      +--rw name string
      +--rw description? string
      +--rw type identityref
      +--rw enabled? boolean
      +--rw link-up-down-trap-enable? enumeration {if-mib}?
  +--ro interfaces-state
    +--ro interface* [name]
      +--ro name string
      +--ro type identityref
      +--ro admin-status enumeration {if-mib}?
      +--ro oper-status enumeration
      +--ro last-change? yang:date-and-time
      +--ro if-index int32 {if-mib}?
      +--ro phys-address? yang:phys-address
      +--ro higher-layer-if* interface-state-ref
      +--ro lower-layer-if* interface-state-ref
      +--ro speed? yang:gauge64
      +--ro statistics
        +--ro discontinuity-time yang:date-and-time
        +--ro in-octets? yang:counter64
        +--ro in-unicast-pkts? yang:counter64
        +--ro in-broadcast-pkts? yang:counter64
        +--ro in-multicast-pkts? yang:counter64
        +--ro in-discards? yang:counter32
        +--ro in-errors? yang:counter32
        +--ro in-unknown-protos? yang:counter32
        +--ro out-octets? yang:counter64
        +--ro out-unicast-pkts? yang:counter64
        +--ro out-broadcast-pkts? yang:counter64
        +--ro out-multicast-pkts? yang:counter64
        +--ro out-discards? yang:counter32
        +--ro out-errors? yang:counter32

```

```

curl --location --request PUT 'https://ios-xe-
mgmt.cisco.com:9443/restconf/data/<item 1>/<item 2>=GigabitEthernet2' \
--header 'Authorization: <item 3>' \
--header 'Accept: <item 4>' \
--header 'Content-Type: application/yang-data+json' \
--data-raw '{
  "ietf-interfaces:interface": {
    "<item 5>": "GigabitEthernet2",
    "description": "Configured by RESTCONF",
    "<item 6>": "iana-if-type:ethernetCsmacd",
    "enabled": true,
    "<item 7>": {
      "address": [
        {
          "<item 8>": "10.255.255.1",
          "<item 9>": "255.255.255.0"
        }
      ]
    }
  }
}'

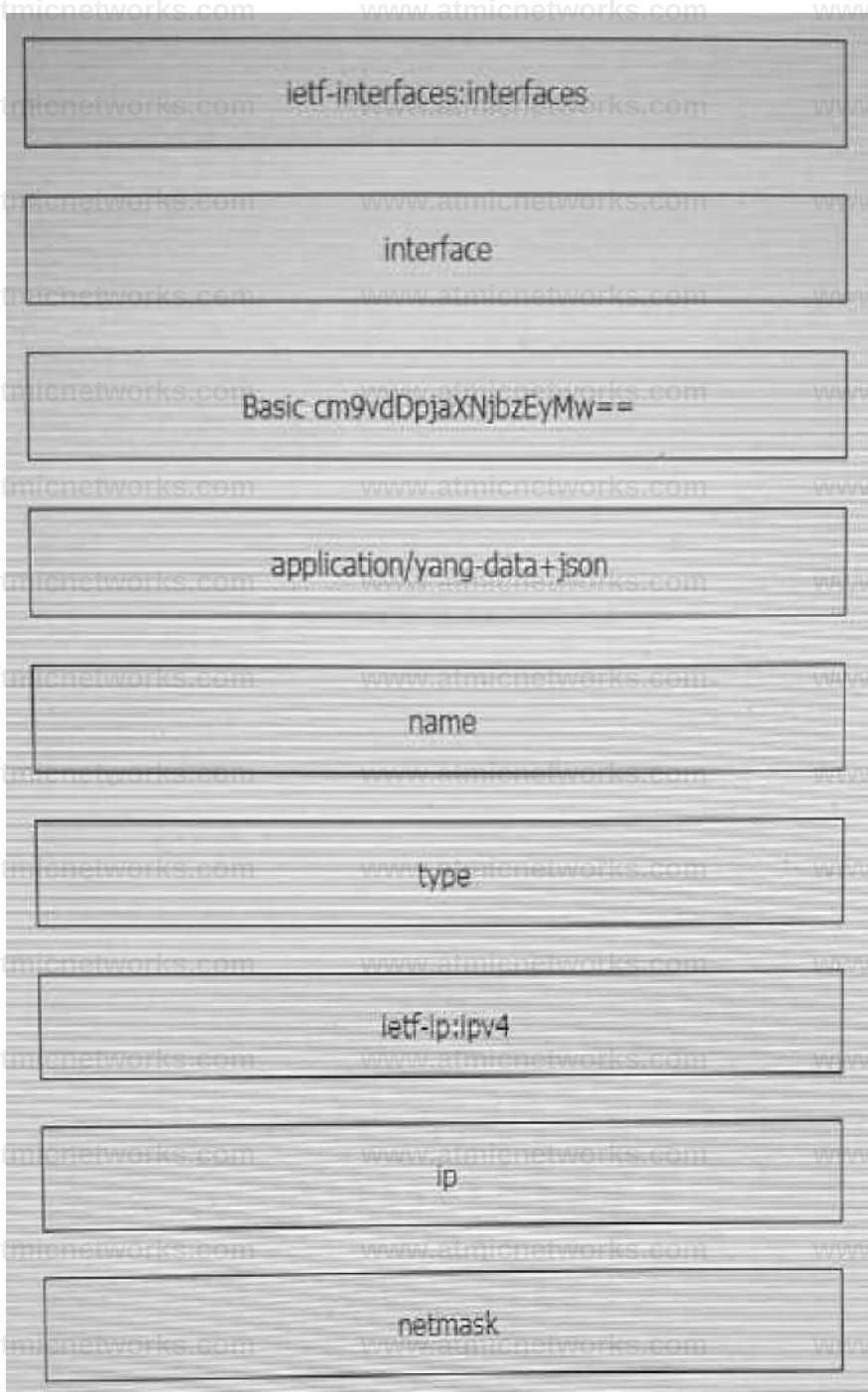
```

Refer to the exhibit above and click on the resource tabs in the top left corner to view resources to help with this question. Drag and drop the correct code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the cURL script that will use RESTCONF to update an interface on a CISCO IOS XE device.

ietf-ip:ipv4	<item 1>
ietf-interfaces:interfaces	<item 2>
interface	<item 3>
name	<item 4>
type	<item 5>
ip	<item 6>
Basic authentication	<item 7>
netmask	<item 8>
application/yang-data+json	<item 9>

Answer:

Explanation:



Question: 100

DRAG DROP

Refer to the exhibit.

```
HOST* 'xehostl.exam.local*
PORT << '443*
USER ■ '* admin'
PASS - 'samplepassword*
INTERFACE - 'GigabitEthernet1'

urlbase * "https://{h}:{p}/restconf".format(h=HOST,p=PORT)

url ■ urlbase + "/data/ietf-
interfaces:interfaces/interface-{i}".format(i=INTERFACE)

with open)'./interface.json*) as f:
    data ■ json.load(f)

response ■ requests.put(url,
                        auth*(USER, PASS) headers=headers, verify=False, json=data)

print(response.text)
```

2. IP Data Model

This document defines the YANG module "ietf-ip", which augments the "interface" lists defined in the "ietf-interfaces" module [RFC8343] with IP-specific data nodes.

The data model has the following structure for IP data nodes per interface, excluding the deprecated data nodes:

```

module: ietf-ip
  augment /if:interfaces/if:interface:
    +--rw ipv4!
      +--rw enabled?          boolean
      +--rw forwarding?       boolean
      +--rw mtu?              uint16
      +--rw address* [ip]
        +--rw ip              inet:ipv4-address-no-zone
        +--rw (subnet)
          +--:(prefix-length)
            +--rw prefix-length?  uint8
          +--:(netmask)
            +--rw netmask?        yang:dotted-quad
                                   {ipv4-non-contiguous-netmasks}?
        +--ro origin?          ip-address-origin
      +--rw neighbor* [ip]
        +--rw ip              inet:ipv4-address-no-zone
        +--rw link-layer-address yang:phys-address
        +--ro origin?          neighbor-origin
    +--rw ipv6!
      +--rw enabled?          boolean
      +--rw forwarding?       boolean
      +--rw mtu?              uint32
      +--rw address* [ip]
        +--rw ip              inet:ipv6-address-no-zone
        +--rw prefix-length    uint8
        +--ro origin?          ip-address-origin
        +--ro status?          enumeration
      +--rw neighbor* [ip]
        +--rw ip              inet:ipv6-address-no-zone
        +--rw link-layer-address yang:phys-address
        +--ro origin?          neighbor-origin
        +--ro is-router?       empty
        +--ro state?           enumeration
      +--rw dup-addr-detect-transmits?  uint32
  
```

```

{
  "<item 1>": {
    "name": "<item 2>",
    "type": "<item 3>",
    "<item 4>": {
      "<item 5>": {
        "<item 6>": "<item 7>",
        "netmask": "255.255.255.0"
      }
    }
  }
}

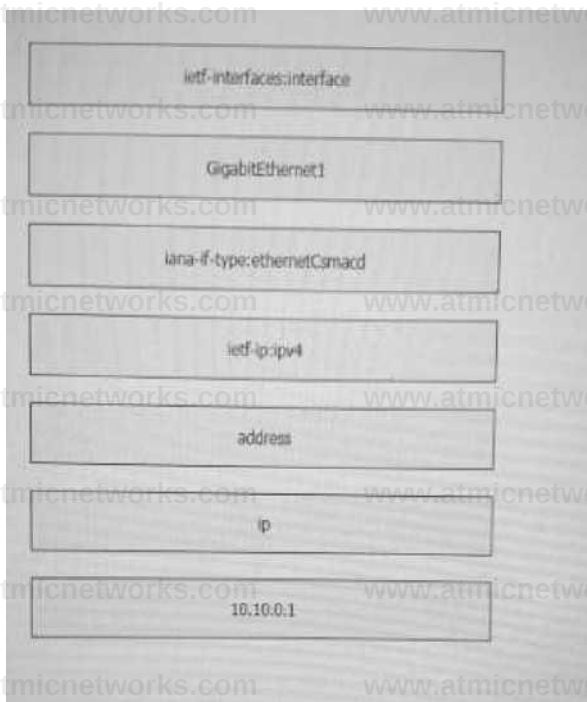
```

Refer to the exhibit above and click on the resource tabs in the top left corner to view an IETANG MODEL and a Python file that changes the configuration via RESTCONF. Drag and drop the code snippets from the left onto the item numbers on the right that match the missing sections in the exhibit to complete the JSON file that changes configuration of interface GigabitEthernet1 to have an IPv4 configuration of 10.10.0.1/24. Not all options are used.

iana-if-type:ethernetCsmacd	<item 1>
ietf-interfaces:interface	<item 2>
ietf-interfaces	<item 3>
ietf-ip:ipv4	<item 4>
interfaces	<item 5>
GigabitEthernet1	<item 6>
ip	<item 7>
address	
ip-address	
10.10.0.1	

Answer:

Explanation:



Question: 101

Refer to the exhibit.

"Greater Than" Operator

The **gt** operator returns true if the left operand is greater than the right operand, otherwise it returns false. The **gt** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is greater than 98304MB:

```
GET /api/v1/compute/RackUnits?filter=AvailableMemory gt 98304
```

Example: Query Audit log records where 'CreationTime' is greater than '2018-06-20T05:31:38.862Z'. The date must be specified in UTC time without quotes.

```
GET /api/v1/aaa/AuditRecords?filter=CreationTime gt 2018-06-20T05:31:38.862Z
```

"Less Than" Operator

The **lt** operator returns true if the left operand is less than the right operand, otherwise it returns false. The **lt** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is less than 98304MB:

```
GET /api/v1/compute/RackUnits?filter=AvailableMemory lt 98304
```

"Greater Than Or Equal" Operator

The **ge** operator returns true if the left operand is greater than or equal to the right operand, otherwise it returns false. The **ge** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is greater than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?filter=AvailableMemory ge 98304
```

"Less Than Or Equal" Operator

The **le** operator returns true if the left operand is less than or equal to the right operand, otherwise it returns false. The **le** operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is less than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?filter=AvailableMemory le 98304
```

"Greater Than" Operator

The `>` operator returns true if the left operand is greater than the right operand. The `>` operator accepts numeric, dates and string values. Example:

Example: Query RackUnit resources where Available Memory is greater than 90304MB.

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory gt 90304
```

Example: Query Audit log records where 'CreationTime' is greater than '2018-06-20T5:31:38.852Z'. The date must be specified in ISO 8601 format, without quotes.

```
GET /api/v1/auditlogrecords?$filter=CreationTime gt 2018-06-20T5:31:38.852Z
```

"Less Than" Operator

The `<` operator returns true if the left operand is less than the right operand, otherwise it returns false. The `<` operator accepts numeric, dates and string values. Example:

Query RackUnit resources where AvailableMemory is less than 98304MB:

"Greater Than Or Equal" Operator

The `>=` operator returns true if the left operand is greater than or equal to the right operand, otherwise it returns false. The `>=` operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is greater than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory ge 98304
```

"Less Than Or Equal" Operator

The `<=` operator returns true if the left operand is less than or equal to the right operand, otherwise it returns false. The `<=` operator accepts numeric, dates and string values.

Example: Query RackUnit resources where AvailableMemory is less than or equal to 98304MB:

```
GET /api/v1/compute/RackUnits?$filter=AvailableMemory le 98304
```

Click on the GET Resource button above to view resources that will help with this question. An engineer is managing a DC with 6000 Cisco UCS servers installed and running. The engineer has been asked to identify all resources where the model is in the UCSB family and the available memory is less than or equal to 5 GB. Which REST API call accomplishes this task?

- A. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=not(Model eq 'UCSC') and AvailableMemory le 5000
- B. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=Model eq 'UCSB' and AvailableMemory lt 5000
- C. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=contains(Model, 'UCSB') and AvailableMemory lt 5000
- D. GET/api/v1/compute/RackUnits?\$select=Vendor,Model,Serial&\$filter=contains(Model,

UCSB') and AvailableMemory le 5000

Answer: D

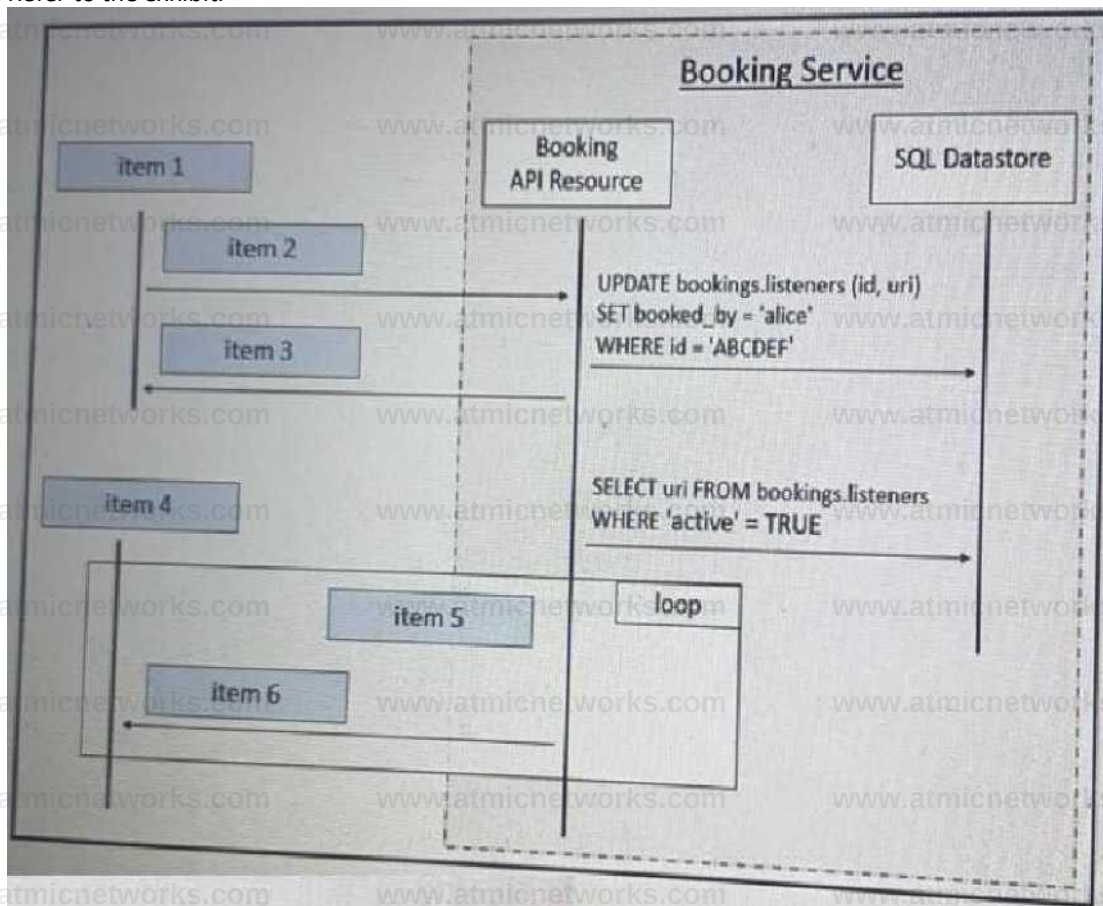
Explanation:

<https://intersight.com/apidocs/introduction/query/#filter-query-option-filtering-the-resources>

Question: 102

DRAG DROP

Refer to the exhibit.

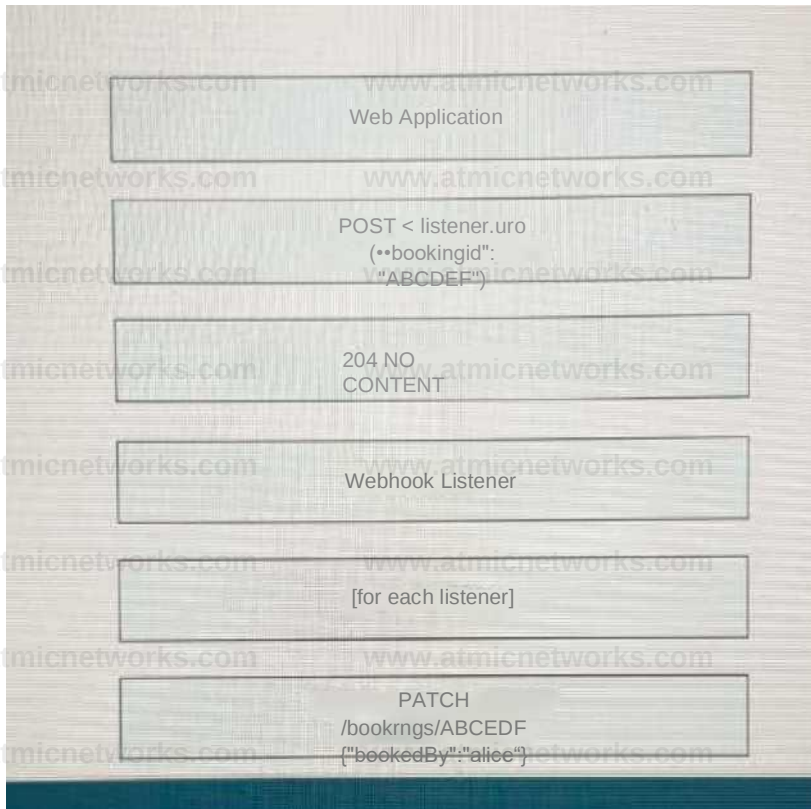


Refer to the exhibit above and click on the tab in the top left corner to view a diagram that describes the typical flow of requests involved when a webhook is created for a booking service. Drag and drop the requests from the left onto the item numbers on the right that match the missing sections in the sequence diagram to design the complete flow of requests involved as a booking is updated from a web application.



Answer:

Explanation:



Question: 103

DRAG DROP

Refer to the exhibit.



PUT /networks/{networkid}/ssids/{number}

PARAMETERS

name

The name of the SSID

enabled

Whether or not the SSID is enabled

authMode

The association control method for the SSID ('open', 'psk', 'open-with-radius', '8021 x-merak '8021 x-radius')

enterpriseAdminAccess

Whether or not an SSID is accessible by 'enterprise* administrators ('access disabled' or 'acc enabled')

encryptionMode

The psk encryption mode for the SSID (wep* or wpa). This param is only valid if the authMo psk

psk

The passkey for the SSID. This param is only valid if the authMode is 'psk'

wpaEncryptionMode

The types of WPA encryption. ('WPA1 and WPA2' or 'WPA2 only')

splashPage

The type of splash page for the SSID ('None', 'Click-through splash page', 'Billing', 'Password-protected with Meraki RADIUS', 'Password-protected with custom RADIUS', 'Password-protected with Active Directory', 'Password-protected with LDAP', 'SMS authentication', 'Systems Manager Sentry', 'Facebook Wi-Fi', 'Google OAuth' or 'Sponsored guest'). This attribute is not supported for template children.

walledGardenEnabled

Allow access to a configurable list of IP ranges, which users may access prior to sign-on.

walledGardenRanges

Specify your walled garden by entering space-separated addresses, ranges using CIDR notation, domain names, and domain wildcards (e.g. 192.168.1.1/24 192.168.37.10/32 www.yahoo.com *.google.com). Meraki's splash page is automatically included in your walled garden.

radiusOverride

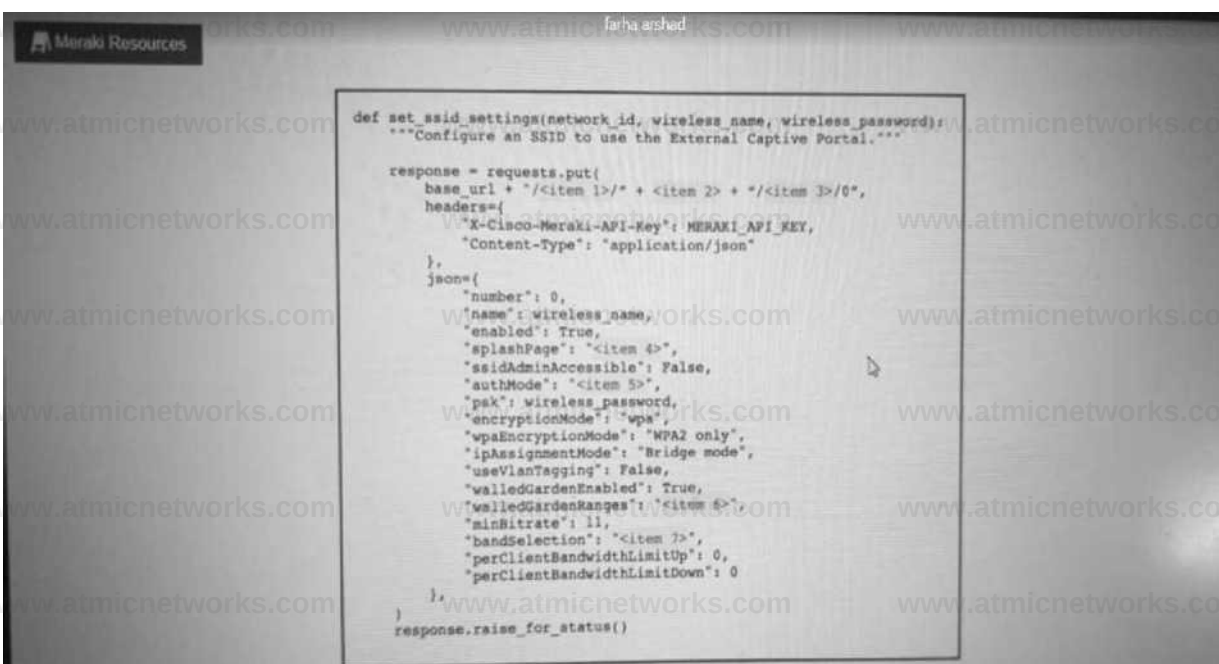
If true, the RADIUS response can override VLAN tag. This is not valid when ipAssignmentMode is 'NAT mode'.

minBitrate

The minimum bitrate in Mbps. ('1', '2', '5.5', '6', '9', '11', '12', '18', '24', '36', '48' or '54')

bandSelection

The client-serving radio frequencies: ('Dual band operation', '5 GHz band only' or 'Dual band operation with Band Steering')



Click on the Meraki Resources tab in the left corner to view Meraki documentation to help with this question. Drag and drop the parts of the python code from the left onto the item numbers on the right that match the missing sections in the exhibit to enable an SSID. Not all code parts are used.

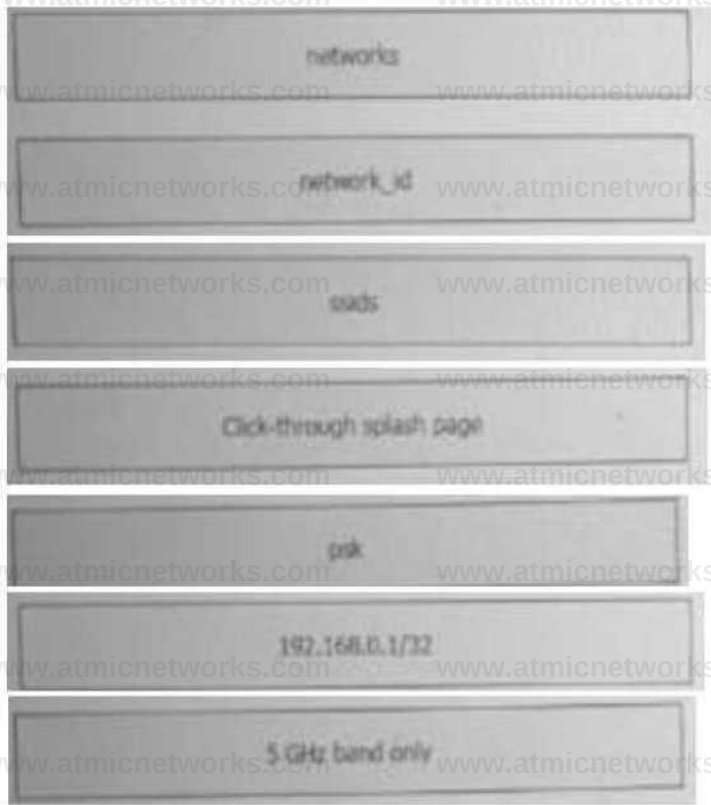
Refer to the exhibit above and click on the Meraki Resources tab in the top left corner to view Meraki documentation to help with this question. Drag and drop the parts of the Python code from the left onto the item numbers on the right that match the missing sections in the exhibit to enable an SSID. Not all code parts are used.

ssid	<item 1>
vlan_id	<item 2>
networks	<item 3>
network_id	<item 4>
192.168.0.1/32	<item 5>
Click-through splash page	<item 6>
5 GHz band only	<item 7>
po4	
organizations	

Next →

Answer:

Explanation:



Question: 104

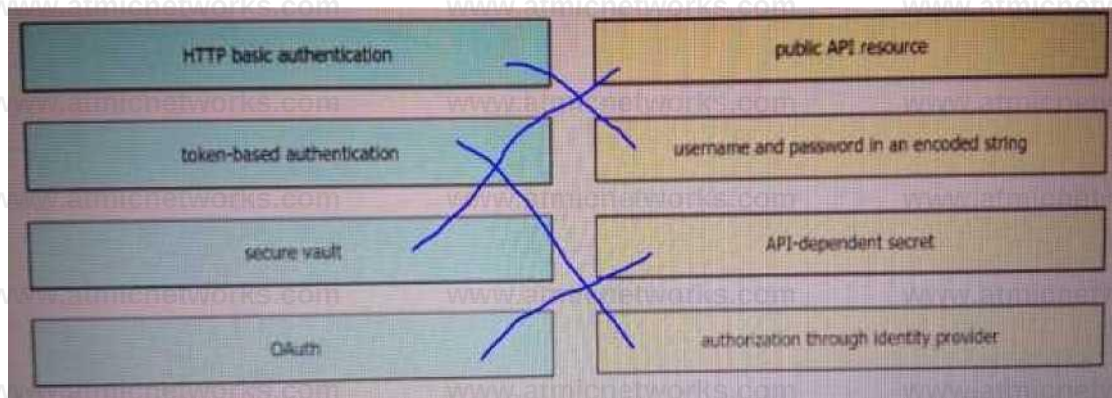
DRAG DROP

Drag and drop the REST API authentication method from the left to the description on the right

HTTP basic authentication	public API resource
token-based authentication	username and password in an encoded string
secure vault	API-dependent secret
OAuth	authorization through identity provider

Answer:

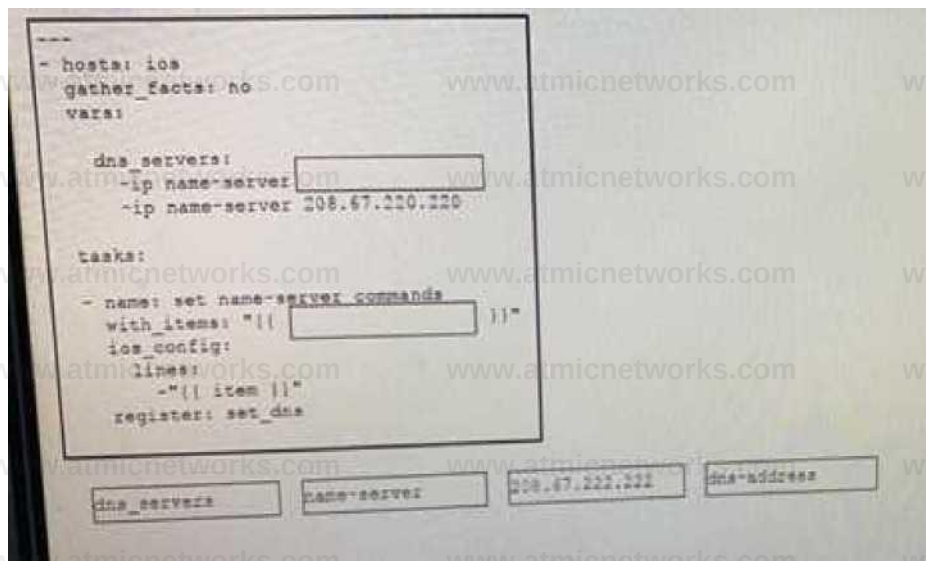
Explanation:



Question: 105

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing the snippet to complete this Ansible Playbook. Not all options are used.



Answer:

Explanation:

208.67.222.222

dns_servers

Question: 106

Refer to the exhibit.

```
import json, requests
USER = 'admin'
PASS = 'cisco'

url = "https://ios-xe-mgmt.cisco.com:9443/restconf/data/Cisco-IOS-XE-native:native \
      "/interface/GigabitEthernet=2/ip/address/primary"

payload = {"primary": [{"address": "10.10.10.1", "mask": "255.255.255.0"}]}
data = json.dumps(payload)
headers = {
    'Accept': "application/yang-data+json",
    'Content-Type': "application/yang-data+json",
}

response = requests.request("PATCH", url, auth=(USER, PASS), data=data, headers=headers,
                             verify=False)

print(response.text)
```

Which RESTCONF verb changes the GigabitEthernet2 interface from 192.168.100.1/24 to 10.10.10.1/24

- A. POST
- B. PATCH
- C. GET
- D. HEAD

Answer: A

Explanation:

Question: 107

The Meraki API URL <https://api.meraki.com/api/v0/networks/123456789/ssids/2> has been stored in the environment variable `meraki_url` and the API key has been stored in `meraki_api_key`. Which snippet presents the API call to configure, secure and enable an SSID using the Meraki API?

A)

```
curl -X PUT --url $meraki_url \
-H 'X-Cisco-Meraki-API-Key: $meraki_api_key' \
-H 'Accept: application/json' \
-H 'Content-type: application/json' \
--data-raw '{
  "name": "My SSID",
  "enabled": true,
}'
```

B)

```
curl -X PUT --url $meraki_url \
-H 'X-Cisco-Meraki-API-Key: $meraki_api_key' \
-H 'Accept: application/json' \
-H 'Content-type: application/json' \
--data-raw '{
  "enabled": true,
  "useVlanTagging": true
}'
```

C)

```
curl -X PUT --url $meraki_url \
-H 'X-Cisco-Meraki-API-Key: $meraki_api_key' \
-H 'Accept: application/json' \
-H 'Content-type: application/json' \
--data-raw '{
  "name": "My SSID", "enabled": true,
  "authMode": "psk", "encryptionMode": "wpa",
  "psk": "meraki123",
  "wpaEncryptionMode": "WPA1 and WPA2"
}'
```

D)

```
curl -X PUT --url $meraki_url \
-H 'X-Cisco-Meraki-API-Key: $meraki_api_key' \
-H 'Accept: application/json' \
-H 'Content-type: application/json' \
--data-raw '{
  "name": "My SSID", "enabled": false,
  "authMode": "psk", "encryptionMode": "wpa",
  "psk": "meraki123",
  "wpaEncryptionMode": "WPA1 and WPA2"
}'
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: C

Explanation:

Question: 108

A developer plans to create a new bugfix branch to fix a bug that was found on the release branch. Which command completes the task?

- A. git checkout -b RELEASE BUGFIX
- B. git checkout -t BUGFIX RELEASE
- C. git checkout -b BUG FIX RELEASE
- D. git checkout -t RELEASE BUGFIX

Answer: C

Explanation:

Question: 109

What is a benefit of continuous testing?

- A. decreases the frequency of code check-ins
- B. removes the requirement for test environments
- C. enables parallel testing
- D. increases the number of bugs found in production

Answer: C

Explanation:

Question: 110

In the three-legged OAuth2 authorization workflow, which entity grants access to a protected resource?

- A. resource server
- B. resource owner
- C. client
- D. authorization server

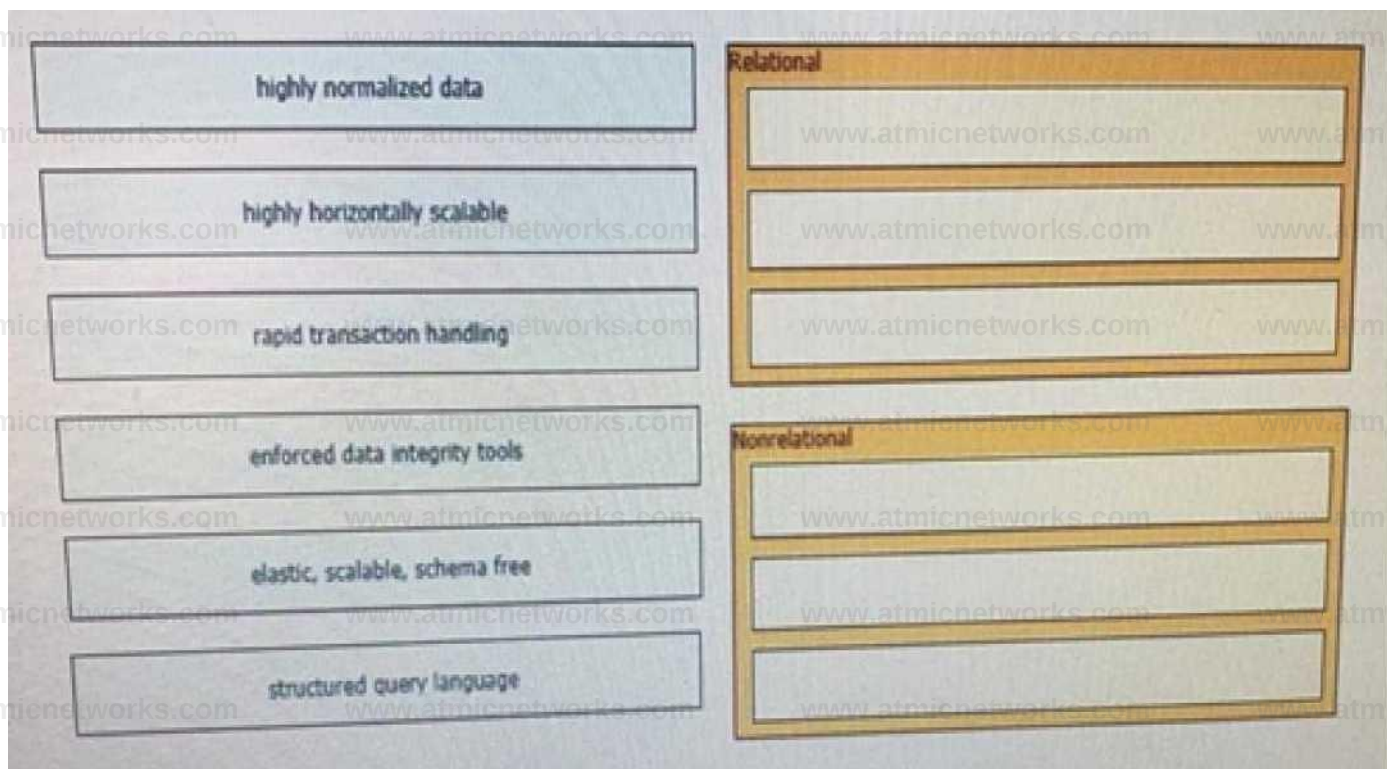
Answer: A

Explanation:

Question: 111

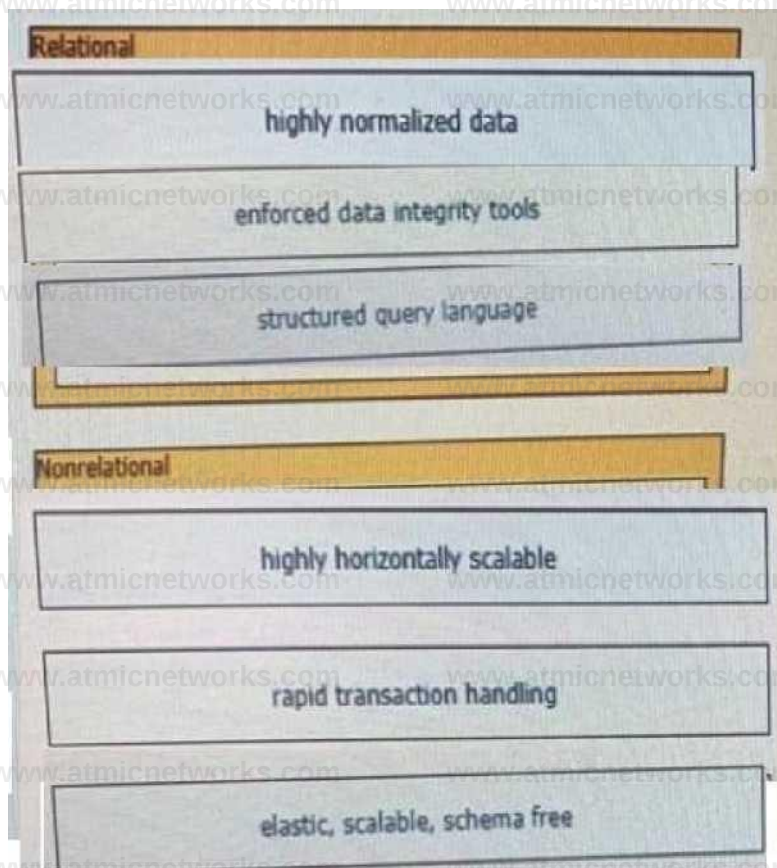
DRAG DROP

Drag and Drop the application requirement on the left onto the database type that should be selected for the requirement on the right.



Answer:

Explanation:



Question: 112

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing on the Ansible task to enable a VLAN on a Meraki MX Device, Not all options are used.



Answer:

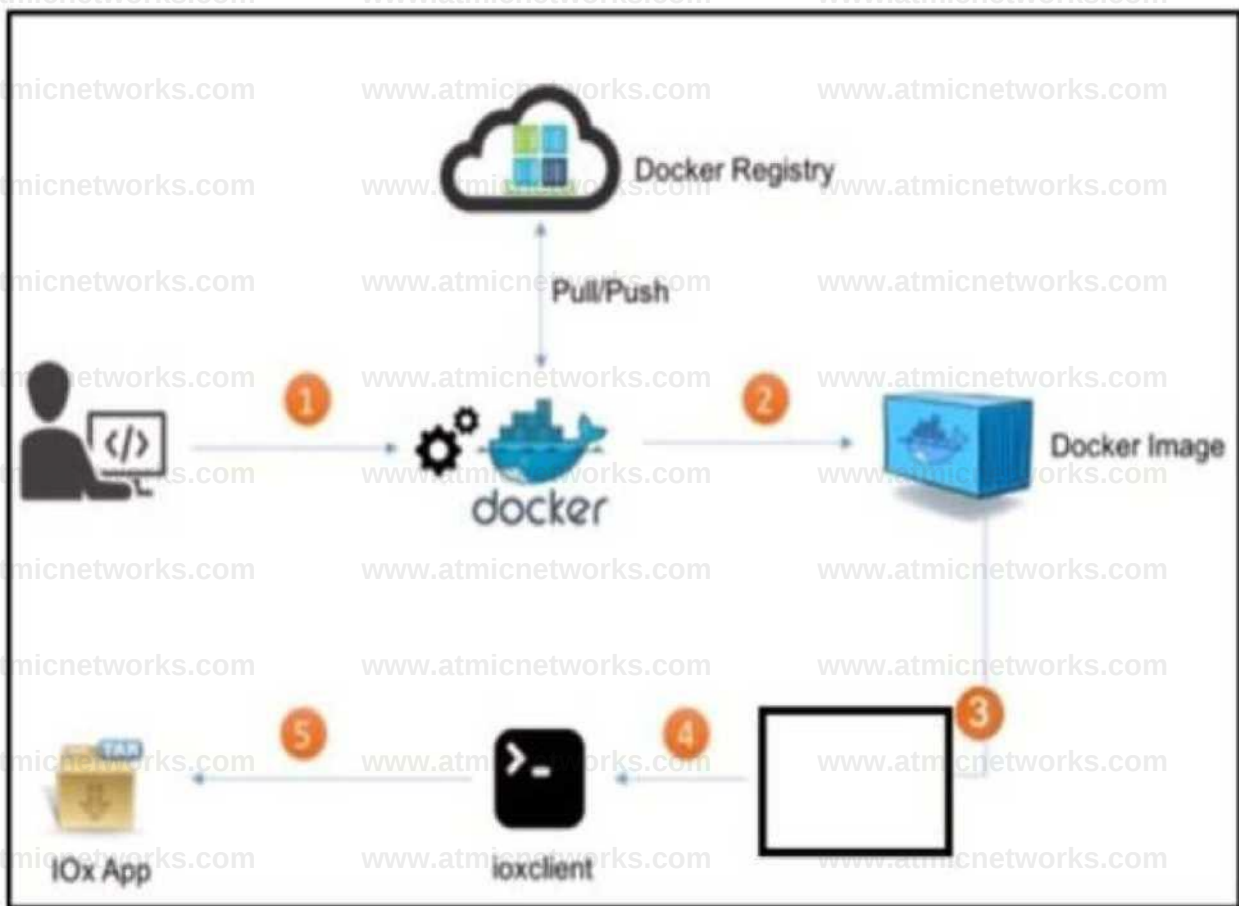
Explanation:

method : put

loop : {{result.results}}

Question: 113

Refer to the exhibit.



What is the missing step in deploying a Docker container to I/OX?

- A. Pull/push the image to the Docker registry,
- B. Build the package.yaml file.
- C. Build the package.cert file to sign the app ,
- D. Log in to Device Manager.

Answer: B

Explanation:

Reference : <https://www.cisco.com/c/en/us/support/docs/routers/1101-industrial-integrated-services-router/214383-build-and-deploy-a-docker-iox-package-fo.html>
<https://www.ciscolive.com/c/dam/r/ciscolive/apic/docs/2017/pdf/DEVNET-2039.pdf>
<https://www.cisco.com/c/en/us/support/docs/cloud-systems-management/iox/211534-Configure-a->

Question: 114

Refer to the exhibit.

```

apiVersion: v1 clusters: - cluster:
  certificate-authority: fake-ca-file server:
  https://1.2.3.4
  name: development - cluster:
  insecure-skip-tls-verify: true server: https://5.6.7.8
  name: scratch contexts: - context:
  cluster: development namespace: frontend user: developer
  name: dev-frontend - context:
  cluster: development namespace: storage user: developer
  name: dev-storage - context: cluster: scratch namespace:
  default user: experimenter
  name: exp-scratch current-context: "" kind: Config
preferences: ( ) users: - name: developer user:
  client-certificate: fake-cert-file client-key: fake-key-
  file
- name: experimenter user:
  password: some-password username: exp

```

A kubeconfig file to manage access to Kubernetes clusters is shown. How many Kubernetes clusters are defined in the file, and which cluster FS accessed using username/password authentication rather than using a certificate?

- A. three dusters; scratch
- B. three clusters: development
- C. two dusters; development
- D. two clusters: scratch

Answer: D

Explanation:

Question: 115

Which tool is used to deploy an IOx application to a group of IOx devices at one time?

- A. ioxclient
- B. IOx local manager
- C. Fog Network Director
- D. Kubernetes

Answer: C

Explanation:

Question: 116

Which two design considerations should be considered when building a Cisco Meraki dashboard out of available APIs? (Choose two,)

- A. API call volume is rate-limited to five calls per second per organization.
- B. The API version does not need to be specified in the URL.
- C. Access to the API must first be enabled by using the settings for an organization.
- D. The API requests require the key and the user credentials.
- E. If the API key is shared, it cannot be regenerated

Answer: CD

Explanation:

[https://documentation.meraki.com/General Administration/Other Topics/Cisco Meraki Dashboar](https://documentation.meraki.com/General_Administration/Other_Topics/Cisco_Meraki_Dashboar)
[d API#Enable API Access](#)

Question: 117

DRAG DROP

Drag and drop the steps from the left into the order on the right to configure and install a container on a Cisco Catalyst 9000 Series Switch.

cat9k# app-hosting start appid MYAPP	step 1
cat9k# app-hosting install appid MYAPP package flash:myapp.tar	step 2
cat9k# app-hosting activate appid MYAPP	step 3
cat9k(config)# iox	step 4

Answer:

Explanation:

D, B,C,A

Question: 118

Refer to the exhibit , The command `docker build -tag=friendlyhello .` is run to build a docker image from the given Dockerfile,

requirements.txt, and app.py. Then the command `docker run -p 4000:80 friendlyhello` is executed to run the application. Which URL is entered in the web browser to see the content served by the application?

- A. `http://localhost:4000`
- B. `http ://localhost:80`
- C. `http ://127.0.0.1:80`
- D. `http:///4000:80`

Answer: D

Explanation:

Question: 119

Refer to the exhibit.

```
while attempts < max_attempts:
    response = requests.get(request_url,
                            headers = { "Authorization": "Bearer " + api_token })

    • If not rate-limited, exit loop and continue with rest of the code
    "I"
    break

    time.sleep((2 ** attempts) + random.random())
    attempts += 1
```

Which code snippet completes this code to handle API rate-limit?

- A. `response.status_code != 408`
- B. `response.status != 408`
- C. `response.status_code != 429`
- D. `response.status_code == 429`

Answer: C

Explanation:

Question: 120

Users report that they are no longer able to process transactions with the online ordering application, and the logging dashboard is

displaying these messages:

Fri Jan 10 19:37:31.123 EST 2020 [FRONTEND] [INFO: Incoming request to add item to cart from user 45834534858

Fri Jan 10 19:37:31.247 EST 2020 [BACKEND] INFO: Attempting to add item to cart

Fri Jan 10 19:37:31.250 EST 2020 [BACKEND] ERROR: Failed to add item: MYSQLDB ERROR: Connection refused

What is causing the problem seen in these log messages?

- A. The database server container has crashed.
- B. The backend process is overwhelmed with too many transactions.
- C. The backend is not authorized to commit to the database.
- D. The user is not authorized to add the item to their cart.

Answer: A

Explanation:

Question: 121

What are two advantages of using model-driven telemetry, such as gRPC, instead of traditional telemetry gathering methods? (Choose two.)

- A. all data is ad-hoc
- B. efficient use of bandwidth
- C. no overhead
- D. decentralized storage of telemetry
- E. continuous information with incremental updates

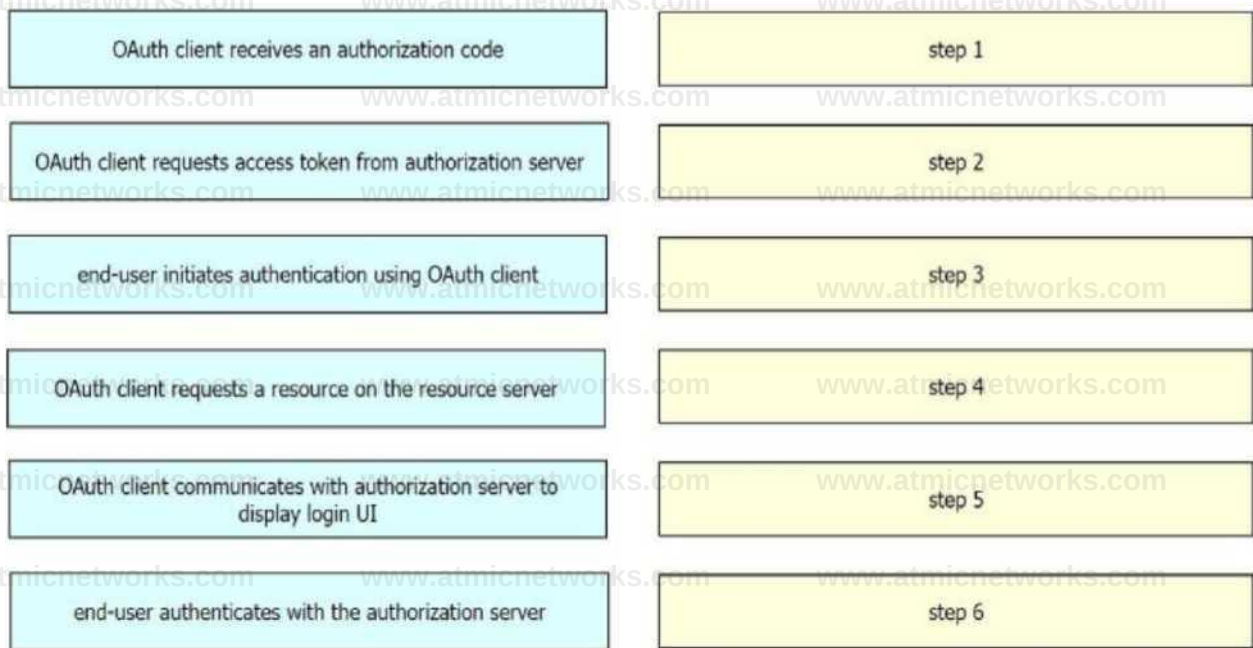
Answer: B, E

Explanation:

Question: 122

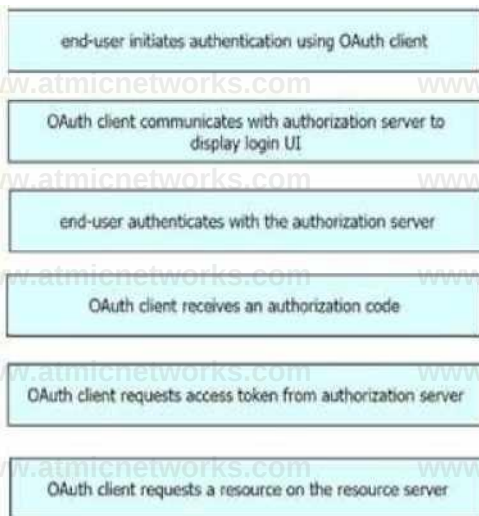
DRAG DROP

Drag and drop the steps on the left into the order on the right for an end-user to access an OAuth2 protected resource using the Authorization Code Grant1 flow.



Answer:

Explanation:



Question: 123

Refer to the exhibit. Which snippet creates a Webex Teams space and adds the users in the variable user list to that space?

A)

```
space = create_space("Chatops Incident Space*") for user in
user_list:
    add__user_to_space (user, space)
```

B)

```
space = create_space("Chatops Incident Space")
for user in user_list:
    add_user_to_space(space)
```

C)

```
space = create_space("Chatops Incident Space") user =
",".join(user_list) add_user_to_space(space)
```

D)

```
space = create_space("Chatops Incident Space")
user = ", ".join(user_list)
add_user_to_space(users, space)
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Explanation:

Question: 124

What is a consideration for using gRPC as the model-driven telemetry protocol on a Cisco IOS XE device?

A. XML-based transmission format

- B. works in dial-out mode
- C. human-readable transmission format
- D. works in call-out mode

Answer: B

Explanation:

Question: 125

Refer to the exhibit.

API CONSOLE

/api/fmc_config/v1/domain/e276abec-e0f2-11e3-8169-6d9ed49b625f/object/fqdns

005056BB-0B24-0ed3-0000-858993545263

Identifier for FQDN object.

+ query parameter

Content-Type Header application/json

Accept Header application/json

GET

Success!

Response Text

Response Info

Request Info

```
{
  "value": "10.156.100.26",
  "overridable": false,
  "description": "testServer",
  "id": "005056BB-0B24-0ed3-0000-858993545263",
  "name": "testServer01.foo.bar.com",
  "metadata": {
    "timestamp": 1551986986196,
    "lastUser": {
      "name": "jboga"
    }
  },
  "domain": {
```

Which API call does an engineer use to delete the FQDN object?

A. DELETE /api/fmc_config/v1/domain/e276abec-e0f2-11e3-8169-6d9ed49b625f

B. DELETE /api/fmc_config/v1/domain/e276abec-e0f2-11e3-8169-6d9ed49b625f/object/fqdns/005056BB-0B24-0ed3-0000-858993545263

C. DELETE /api/fmc_config/v1/domain?id=e276abec-e0f2-11e3-8169-6d9ed49b625f

D. DELETE /api/fmc_config/v1/domain/e276abec-e0f2-11e3-8169-6d9ed49b625f/object/fqdns?id=005056BB-0B24-0ed3-0000-858993545263

Answer: B

Explanation:

https://www.cisco.com/c/en/us/td/docs/security/firepower/640/api/REST/Firepower_Management_Center_REST_API_Quick_Start_Guide_640/Objects_In_The_REST_API.html#fqdns_DELETE

Question: 126

Refer to the exhibit.

```
import json, requests
USER = 'admin'
PASS = 'cisco'

url = "https://ios-xe-mgmt.cisco.com:9443/rejtconf/dat4/Cisco-I05-XE-Mtive:native" \
      "/interface/GigabitEthernet=2/ip/address/primary"

payload = {"primary": {"address": "10.10.10.1", "mask": "255.255.255.0"}}
data = json.dumps(payload)
headers = {'Accept': 'application/yang-data+json',
           'Content-Type': 'application/yang-data+json', ''}

response = requests.request("POST", url, auth=(USER,PASS), data=data, headers=headers, verify=False)
print(response.text)
```

An engineer needs to change the IP address via RESTCONF on interface GigabitEthernet2. An error message is received when the script is run. Which amendment to the code will result in a successful RESTCONF action?

- A. Change POST to PATCH.
- B. Issue a DELETE before POST.
- C. Issue a DELETE before PATCH
- D. Change POST to GET

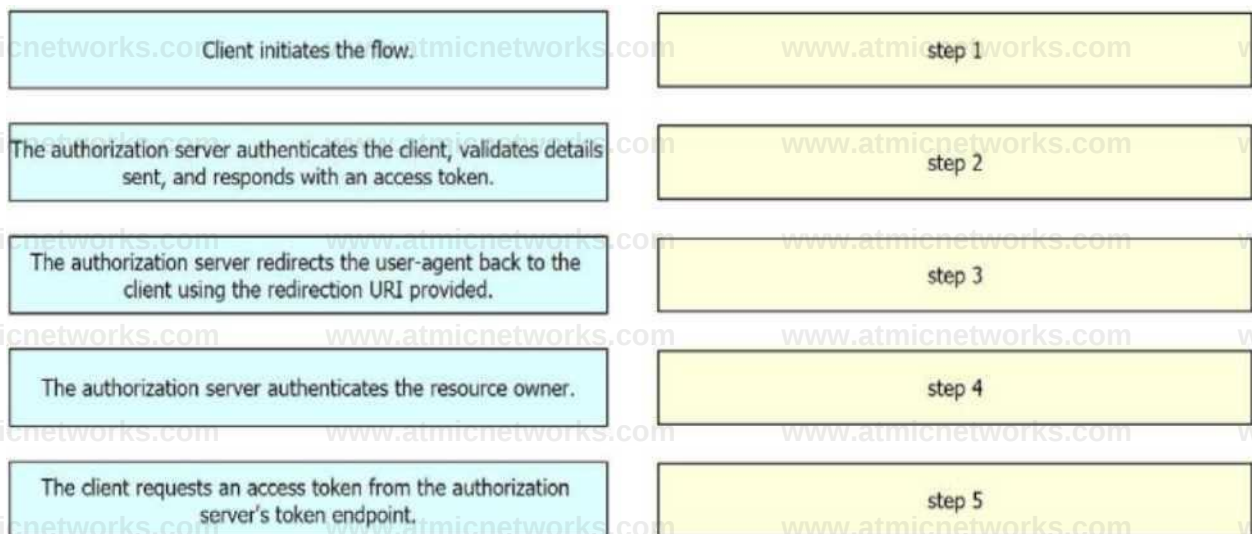
Answer: A

Explanation:

Question: 127

DRAG DROP

Refer to the exhibit.



Drag and drop the steps from the left into the order of operation on the right for a successful OAuth2 three-legged authorization code grant flow,

Answer:

Explanation:

Client initiates the flow.

The authorization server redirects the user agent back to the client using the redirection URI provided.

The authorization server authenticates the client, validates details sent, and responds with an access token.

The client requests an access token from the authorization server's token endpoint,

The authorization server authenticates the resource owner

Question: 128

Why is end-to-end encryption deployed when exposing sensitive data through APIs?

- A. Traffic is encrypted and decrypted at every hop in the network path.
- B. Data transfers are untraceable from source to destination.
- C. Data cannot be read or modified other than by the true source and destination.
- D. Server-side encryption enables the destination to control data protection.

Answer: C

Explanation:

Question: 129

Refer to the exhibits which show the documentation associated with the create port object API call in Cisco Firepower Threat Defense, and a cURL command. Which data payload completes the cURL command to run the API call?

A)

```
'description': "string",  
"icmpv4Code": "ANY_IPV4",  
"icmpv4Type": "ANY", "id":  
"string", "isSystemDefined":  
"string", name: string,  
"type": "icmpv4portobject",  
version : string
```

B)

```
"description": "This is an ICMP Echo",  
"icmpv4Code": "8", "icmpv4Type": "Echo",  
"isSystemDefined": true, "name": "ICMP  
Echo", "version": "2.2"
```

C)

```
"icmpv4Type": "ANY", "name": "string",  
"type": "icmpv4portobject"
```

D)

```
"description": "string",  
"icmpv4Code": "ANY_IPV4",  
"icmpv4Type": null,  
"isSystemDefined": true,  
"name": "string",  
"type": "icmpv4portobject"
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: C

Explanation:

Reference : <https://developer.cisco.com/site/ftd-api-reference/#!editicmpv4portobject/path->

[parameters](#)

Question: 130

What is a characteristic of a monolithic architecture?

- A. It is an application with multiple independent parts.
- B. New capabilities are deployed by restarting a component of the application.
- C. A service failure can bring down the whole application.
- D. The components are platform-agnostic.

Answer: C

Explanation:

A monolithic app can be platform-agnostic but it's not mandatory. But if the app is monolithic, a service failure (such as storage or network) will bring down the whole app/service. This is unlike the distributed application architecture where failure of one microcomponent can be detected and fixed dynamically.

Question: 131

A local Docker image has an image ID of 386231131. Fill in the blanks to complete the command in order to tag the image into the "cisco" repository with "version1.0".

\$ docker tag

**Answer: 386231131 ,
cisco/386231131:version1.0**

Explanation:

\$ docker tag

386231131

cisco/386231131:version1.0

<https://docs.docker.com/engine/reference/commandline/tag/>

Question: 132

A bot has been created, called "386231131", to respond to alarm messages. A developer is now creating a Webhook to allow the bot to respond to messages. Which format allows the Webhook to respond to messages for the bot within Webex Teams?

A)

```
GET /messages?botId=me&roomId=NETWORK_3STATUS
Authorization: Bearer THE 30T3 ACCESS TOKEN
```

B)

```
GET /me 3sages?mentionedBot=me&roomId=NETWORK_3TATU3
Authorization: Bearer THE BOT3 ACCESS TOKEN
```

C)

```
GET /messages?mentioned?eople=me&roomId=NETWORK_STATUS
Authorization: Bearer THE BOT3 ACCESS TOKEN
```

D)

```
GET /messages?personId=me&roomId=NETWORK STATUS
Authorization: Bearer THE_BOT3_ACCE3S_TOKEN
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: C

Explanation:

<https://developer.webex.com/docs/api/guides/webhooks>

Question: 133

Refer to the exhibit.

```
curl "http://localhost/api/ [ ]"
```

An application's REST API GET call is tested to the inventory database. Which missing code must be included to limit

the number of values that are returned from the query to 20?

- A. Inventory=20
- B. limit=?20
- C. inventory=limit?20
- D. inventory? limit20

Answer: D

Explanation:

Question: 134

Given an application that implements a basic search function as Well as a video upload function
which two load-balancing approaches

optimize the application's user experience? (Choose two.)

- A. Video upload requests should be routed to the endpoint using an intermediate hop.
- B. Video upload requests should be routed to the endpoint with highest data throughput.
- C. Video upload requests should be routed to the endpoint with lowest round-trip latency.
- D. Search requests should be routed to the endpoint with lowest round-trip latency.
- E. Search requests should be routed to the endpoint with highest data throughput.

Answer: BD

Explanation:

Question: 135

What are two methods for sending bearer access tokens in resource requests to servers?
(Choose two,)

- A. in plaintext for user access
- B. in the HTTP API schema
- C. in the HTTP request entity-body
- D. in the "Authorization" request header field
- E. in the HTTP request URI

Answer: CD

Explanation:

Question: 136

Which Git command enables the developer to revert back to f414f31 commit to discard changes in the current working tree?

- A. `git reset-hard f414f31`

B. git reset checkout-hard f414f31

C. git reset-soft f414f31

D. git checkout f414f31

Answer: A

Explanation:

Reference: <https://www.freecodecamp.org/news/the-ultimate-guide-to-git-reset-and-git-revert/>

Question: 137

An engineer must enable an SSID in a Meraki network. Which request accomplishes this task?

A. PUT /networks/{networkId}/ssids/{number} {"enable": true}

B. POST /networks/{networkId}/ssids/{number} {"enable": true}

C. PUT /networks/{networkId}/ssids/{number}?enabled=true

D. POST /networks/{networkId}/ssids/{number}?enabled=true

Answer: A

Explanation:

Question: 138

A team of developers created their own CA and started signing certificates for all of their IoT devices, Which action will make the browser

accept these certificates?

A. Set the private keys 1024-bit RSA.

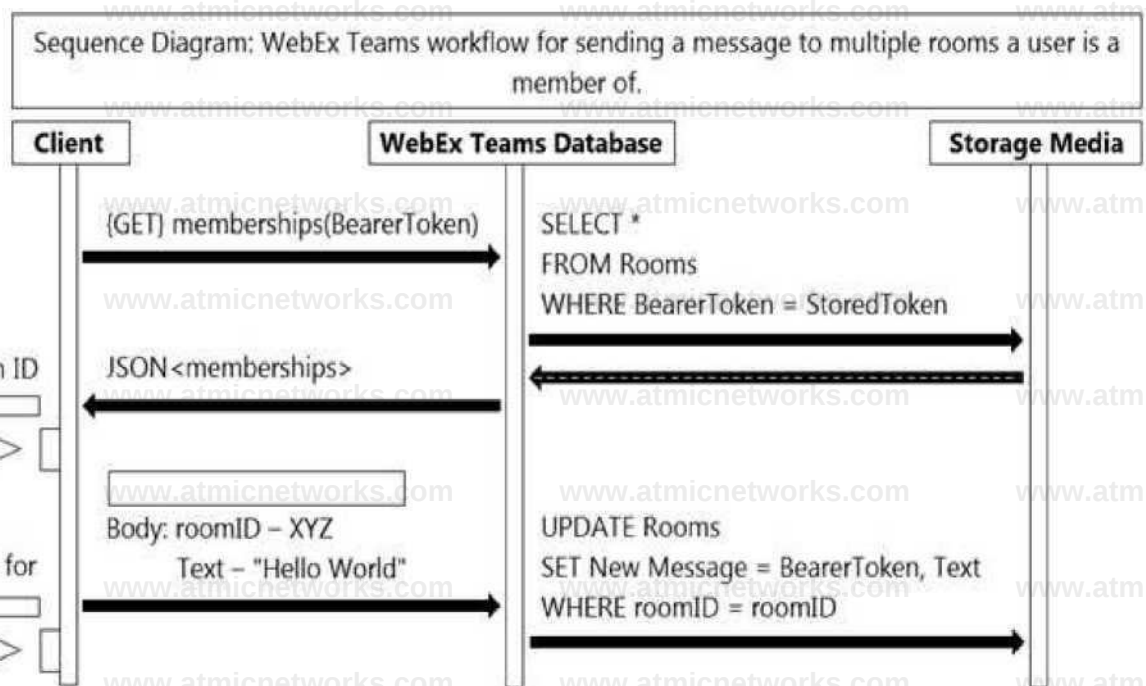
- B. Preload the developer CA on the trusted CA list of the browser.
- C. Enable HTTPS or port 443 on the browser.
- D. install a TLS instead of SSL certificate on the IoT devices.

Answer: B

Explanation:

Question: 139

Refer to the exhibit.



Which action will complete the workflow that represents how an API call sends multiple messages?

- A. {PUT} messages(roomID)
- B. {PUT} messages(BearerToken)
- C. {POST} messages(roomID)
- D. {POST} messages(BearerToken)

Answer: D

Explanation:

<https://developer.webex.com/docs/api/v1/messages/create-a-message>

Question: 140

Which two types of organization are subject to GDPR? (Choose two.)

- A. only organizations that operate outside the EU
- B. any organization that offers goods or services to customers in the EU
- C. only organizations that have offices in countries that are part of the EU
- D. any organization that operates within the EU
- E. only organizations that physically reside in the EU

Answer: BD

Explanation:

Reference: <https://www.cisco.com/c/en/us/products/security/comply-with-GDPR.html>

Question: 141

A developer deploys a SQLite database in a Docker container. Single-use secret keys are generated each time

a user accesses the database. The keys expire after 24 hours. Where should the keys be stored?

- A. Outside of the Docker container in the source code of applications that connect to the SQLite database.
- B. In a separate file inside the Docker container that runs the SQLite database.
- C. In an encrypted database table within the SQLite database.
- D. In a separate storage volume within the Docker container.

Answer: D

Explanation:

Question: 142

While working with the Webex Teams API, on an application that uses end-to-end encryption, a webhook has been received. What must be considered to read the message?

- A. Webhook information cannot be used to read the message because of end-to-end encryption. The API key is needed to decrypt the message.
- B. Webhook returns the full unencrypted message. Only the body is needed to query the API.
- C. Webhook returns a hashed version of the message that must be unhashed with the API key.
- D. Webhook returns message identification. To query, the API is needed for that message to get the decrypted information.

Answer: D

Explanation:

Room messages are considered sensitive information and since Webex initiated the request to your backend, it did not have your Access Token with which to decrypt the message. In order to get the sensitive information, your app needs to use the resource id to fetch the full resource. Using the above messages example, your app could fetch the complete message object along with the text by doing an authenticated (via your Bearer Token) GET request to `/messages/{id}`

<https://developer.webex.com/docs/api/guides/webhooks>

Question: 143

Which Puppet manifest needs to be used to configure an interface GigabitEthernet 0/1 on a Cisco IOS

switch?

A.

```
ios interface {  
    name - 'GigabitEthernet0/1',  
    link status - false,  
    logging_event = [  
        'spanning-tree',  
        'subif-link-status',  
    ]  
    b  
    logging_event_link_status = false,  
    ip_dhcp_snooping_trust - true,  
    ip_dhcp_snooping_limit - 1500,  
}
```

B.

```
ios interface {  
    'GigabitEthernet0/1' => {  
        link status => false,  
        logging_event 'spanning-  
            tree', 'subif-link-  
            status'  
    }  
    b  
    logging_event_link_status => false,  
    ip_dhcp_snooping_trust => true.  
    ip_dhcp_snooping_limit } => 1500,  
}
```

```

ios interface {
    id => 'GigabitEthernet0/1',
    link status => false.
    logging_event => [
        'spanning-tree',
        'subif-link-status'
    ]
    logging-event_link_status => false.
    ip_dhcp_snooping_trust => true,
    ip_dhcp_snooping_limit => 1500,
}

```

```

ios_interface { 'GigabitEthernet0/1' :
    link status => false,
    logging_event => [
        'spanning-tree' ,
        'subif-link-status'
    ]
    b
    logging event link status => false,
    ip_dhcp_snooping_trust => true,
    ip_dhcp_snooping_limit => 1500,
}

```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D

Explanation:

https://github.com/puppetlabs/cisco_ios/blob/main/examples/network_interface.pp

Question: 144

What are two steps in the OAuth2 protocol flow? (Choose two.)

- A. The user is authenticated by the authorization server and granted an access token.
- B. The user's original credentials are validated by the resource server and authorization is granted.
- C. The user indirectly requests authorization through the authorization server.
- D. The user requests an access token by authentication and authorization grant presentation.
- E. The user requests the protected resource from the resource server using the original credentials.

Answer: AE

Explanation:

Reference: <https://www.digitalocean.com/community/tutorials/an-introduction-to-oauth-2>

Question: 145

DRAG DROP

```
class ucsmSdkmMeta.Ls.LsServer.LsServerConsts
```

```
ASSIGN_STATE_ASSIGNED= 'assigned'
```

```
ASSIGN_STATE_FAILED= 'failed'
```

```
ASSIGN_STATE_UNASSIGNED= 'unassigned'
```

```
ASSOC_STATE_ASSOCIATED= associated1
```

```
ASSOC_STATE_ASSOCIATING= 'associating'
```

```
ASSOC_STATE_DISASSOCIATING= 'disassociating'
```

```
ASSOC_STATE_FAILED= 'failed'
```

```
ASSOC_STATE_UNASSOCIATED= 'unassociated'
```

```
CONFIG_STATE_APPLIED= 'applied'
```

```
CONFIG_STATE APPLYING= 'applying' CONFIG_STATE_FAILED_TO_APPLY= 'failed-to-apply'
```

```
CONFIG_STATE_NOT_APPLIED= 'not-applied'
```

Refer to the exhibit. Drag and drop the code snippets from the bottom onto the blanks in the code to provision a new UCS server. Not all options are used.

```
from ucsmsdk.ucseventhhandler import UcsEventHandle
from ucsmsdk.mometa.Ls.LsServer import

end_script = False

def _sp_associate_callback(mce):
    global end_script
    if mce.mo.assoc_state == LsServerConsts.ASSOC_STATE_ASSOCIATED: log.debug("SP:"
    + mce.mo.dn + " Assoc Successful. assoc_state: " + mce.mo.assoc_state
    elif mce.mo.assoc_state == LsServerConsts.ASSIGN_STATE_FAILED: log.error("SP:" +
    mce.mo.dn + "Assoc Failed. assoc_state: " + mce.mo.assoc_state)
    end_script = True

def _sp_associate_monitor(event_handle, mo):
    __.add(managed_object=mo, prop="assoc_state",
    success_value=[LsServerConsts.ASSOC_STATE_ASSOCIATED],
    failure_value=[LsServerConsts.ASSOC_ | _____~
    timeout_sec=600, call_back=_sp_associate_callback)

    STATE_ERROR] | STATE_FAILED]

    LsServerConsts I event handle
```

Answer:

Explanation:

```

from ucsmsdk.ucseventhhandler import UcsEventHandle from ucsmsdk.mometa.Is.LsServer
import LsServerConsts

end_script = False

def _sp_associate_callback(mce):
    global end_script
    if mce.mo.assoc_state == LsServerConsts.ASSOC_STATE_ASSOCIATED:
        log.debug("SP:" + mce.mo.dn + " Assoc Successful. assoc_state: "+
            mce.mo.assoc_state)
    elif mce.mo.assoc_state == LsServerConsts.ASSIGN_STATE_FAILED:
        log.error("SP:" + mce.mo.dn + "Assoc Failed. assoc_state: "+
            mce.mo.assoc_state)
    end_script = True
def
    _sp_associate_monitor(event_handle, mo):
        event_handle.add(managed Object=mo, prop= "assoc_state",
            success_value=[LsServerConsts.ASSOC_STATE_ASSOCIATED],
            failure_value=[LsServerConsts.ASSOC_STATE_FAILED]
            timeout_sec=600, call_back=_sp_associate_callback)

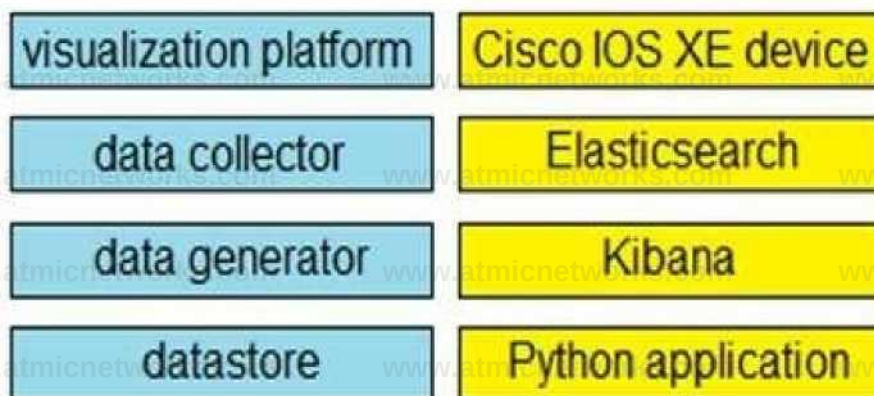
```

Question: 146

DRAG DROP

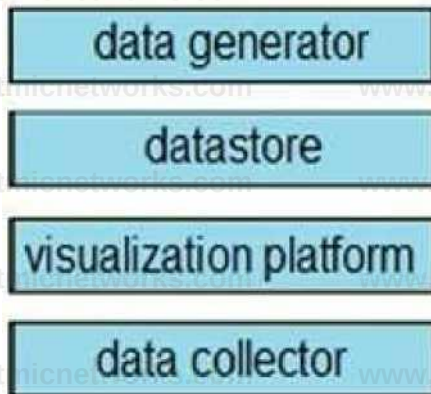
A Python application is being written to run inside a Cisco IOS XE device to assist with gathering telemetry data

a. Drag and drop the elements of the stack from the left onto the functions on the right to collect and display the telemetry streaming data.



Answer:

Explanation:



Question: 147

Refer to the exhibit.

POST

/object/networks

Implementation Notes

This API call is not allowed on the standby unit in an HA pair.

Response Class (Status 200)

Model

Example Value

```
{
  "version": "string",
  "name": "string",
  "description": "string",
  "subType": "HOST",
  "value": "string"
  "links": {
    "self": "string"
  }
}
```

Refer to the exhibit. A developer must create a new network object named testnetwork by using the Cisco Firepower Device Management API. The script must also handle any exceptions that occur during the request and print out any resulting errors. Which script must be used?

```
import requests, json
headers = { 'Content-type': 'application/json'} data = {"name":
"testnetwork", "description": "Test Network", "subType": "HOST",
"value": "192.168.1.1", "type" : "networkobject"} try:
    response = requests.post(
        'https://firepower-server/object/networks', data=data)
except:
    print(error)
```

```
import requests, json
headers = { 'Content-type': 'application/json'} data = {"name":
"testnetwork", "description": "Test Network", "subType": "HOST",
"value": "192.168.1.1", "type" : "networkobject"} try:
    response = requests.post(
        'https://firepower-server/object/networks', data=data,
        headers=headers)
    response.raise_for_status() except:
    print(error)
```

```
import requests, json.
headers = { 'Content-type': 'application/json'} data = {"name":
"testnetwork", "description": "Test Network", "subType" : "HOST",
"value": "192.168.1.1", "type" : "networkobject"} try:
response = requests.post(
'http://firepower-server/object/networks',
data=json.dumps(headers), headers=data)
response.raise_for_status() except:
print(error)
```

```
import requests, json
headers = { 'Content-type': 'application/json'} data = {"name":
"testnetwork", "description": "Test Network", "subType" : "HOST",
"value": "192.168.1.1", "type" : "networkobject"} try:
response = requests.post(
'https://firepower-server/object/networks',
data=json.dumps(data), headers=headers)
response.raise_for_status() except:
print(error)
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Explanation:

Question: 148

What is the gRPC Network Management Interface protocol?

- A. a unified management protocol for streaming telemetry and database logging
- B. a configuration management protocol for monitoring

- C. a protocol for configuration management and streaming telemetry
- D. a logging protocol used across database servers

Answer: C

Explanation:

Reference: <https://infohub.delltechnologies.com/l/enterprise-sonic-distribution-by-dell-technologies-lifecyclemanagement/grpc-network-management-interface>

Question: 149

An application has been developed for monitoring rooms in Cisco Webex. An engineer uses the application to retrieve all the messages from a Cisco Webex room, but the results are slowly presented. Which action optimizes calls to retrieve the messages from the /v1/messages endpoint?

- A. Define the max property by using the pagination functionality.
- B. Set the beforeMessage property to retrieve the messages sent before a specific message ID.
- C. Avoid unnecessary calls by using a prior request to /v1/rooms to retrieve the last activity property.
- D. Filter the response results by specifying the created property in the request.

Answer: A

Explanation:

Reference: <https://apphub.webex.com/messaging/applications/paginate-cisco-systems-82277>

Question: 150

What are two principles according to the build, release, run principle of the twelve-factor app methodology?

(Choose two.)

- A. Code changes are able to be made at runtime.
- B. Separation between the build, release, and run phases.
- C. Releases should have a unique identifier.
- D. Existing releases are able to be mutated after creation.
- E. Release stage is responsible for compilation of assets and binaries.

Answer: BC

Explanation:

Reference: <https://www.bmc.com/blogs/twelve-factor-app/>

Question: 151

A developer is building an application to access a website. When running the application, an HTTP 403 error code has been received. How should the application be modified to handle this code?

- A. Create a loop on cancel the operation and run a new one after the code is received.
- B. Use exponential backoff when retrying distributed services and other remote endpoints.
- C. Build a try/except around the urlopen to find errors occurring in the request.

D. Redirect the request to an internal web server and make a new request from the internal resource.

Answer: B

Explanation:

Question: 152

When end-to-end encryption is implemented, which area is most vulnerable to exploitation?

A. cryptographic key exchange

B. endpoint security

C. cryptographic key generation

D. security of data in transit

Answer: B

Explanation:

Question: 153

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing in the Python script to execute a REST API call to query all the NTP policy names and print the name of each policy. Not all options are used.

```

import requests, json
from intersight_auth import IntersightAuth

AUTH = IntersightAuth(
    secret_key_filename= '/tmp/secretfile.txt',
    api_key_id= 'api-key-id')
URL= 'https://www.intersight.com/api/v1/'

operations = [ {"resource_path": " ",
                "request_method": "GET" } ]

:

response = None
if operation['resource_path'] == "ntp/Policies":
    response = requests.get( )

    = response.json()

for key, value in jsonResponse.items():
    if key == "Name":
        print(value)

```

```
for operation in operations
```

```
URL+operation
['resource_path'],auth=AUTH
```

```
jsonResponse
```

```
URL+operation[resource_path],
auth=api_key_id
```

```
ntp/Policies
```

```
response.json
```

```
for each operations
```

Answer:

Explanation:

```
import requests, json
from intersight_auth import IntersightAuth

AUTH = IntersightAuth(
    secret_key_filename= '/tmp/secretfile.txt',
    api_key_id= 'api-key-id')
URL= 'https://www.intersight.com/api/v1/'

operations = [ {"resource_path": "ntp/Policies",
                "request_method": "GET" } ]

for operation in operations :
    response = None
    if operation['resource_path'] == "ntp/Policies":
        response = requests.get( URL+operation
                                  ['resource_path'],auth=AUTH
                                  )

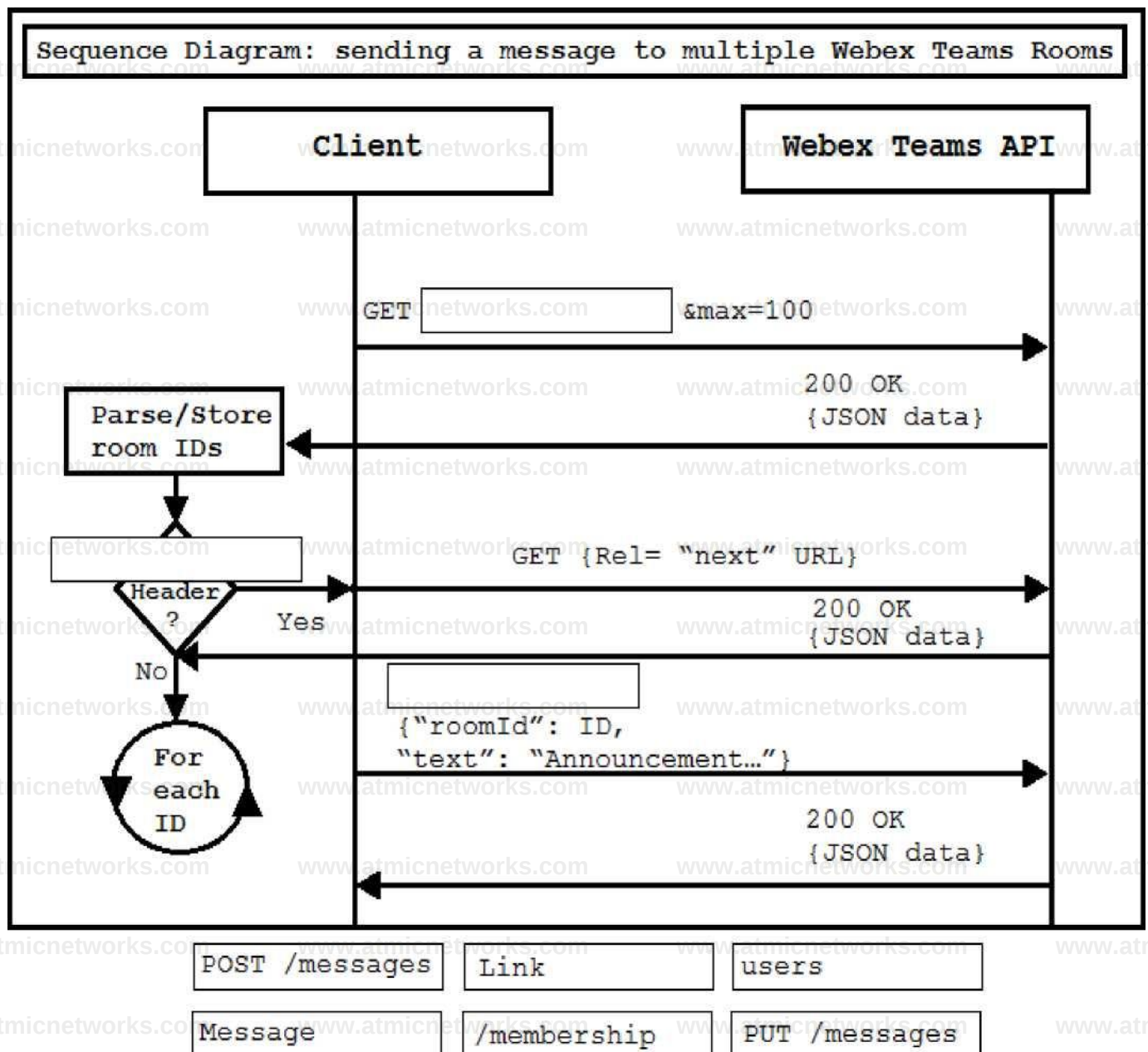
    jsonResponse = response.json()

    for key, value in jsonResponse.items():
        if key = "Name":
            print(value)
```

Question: 154

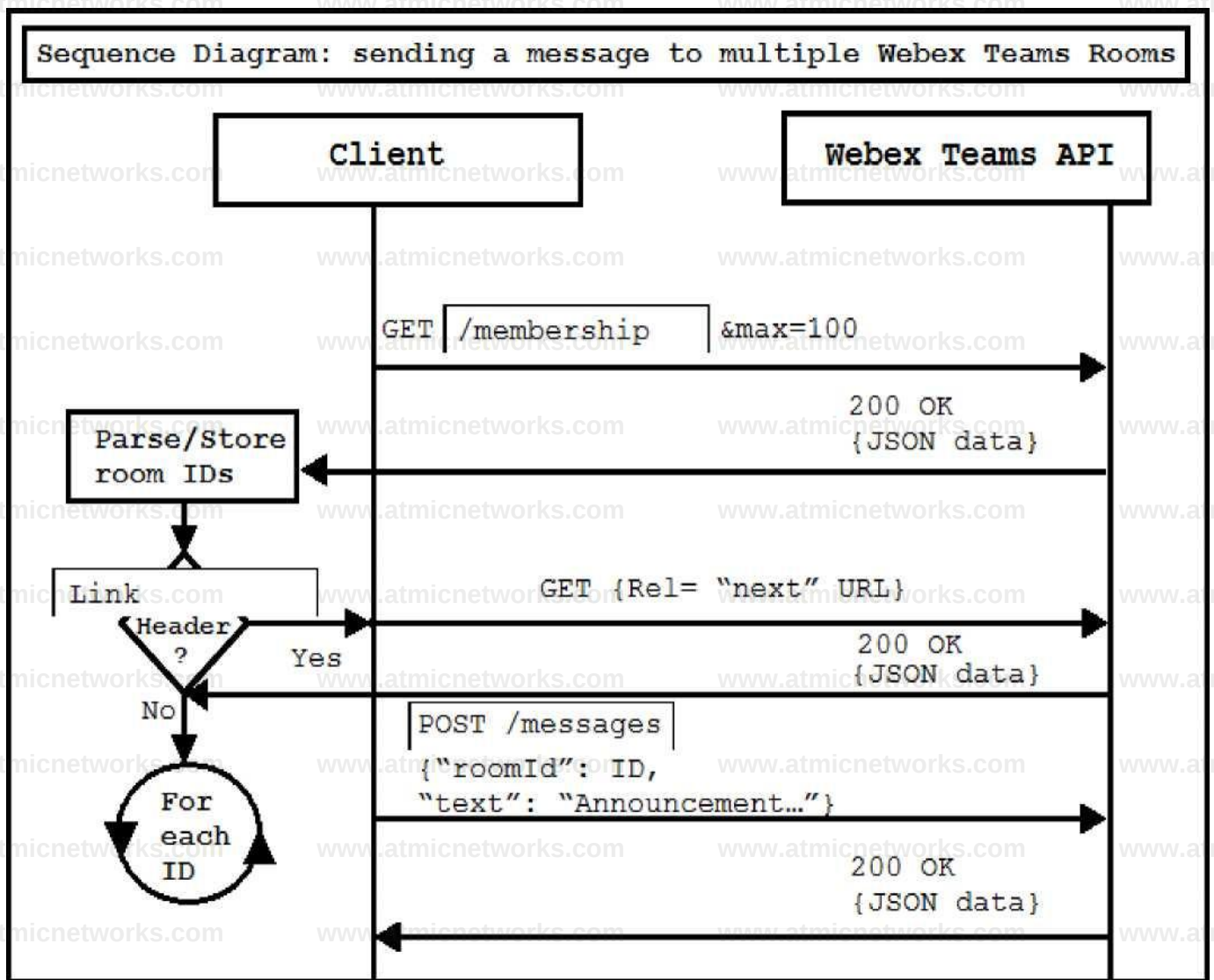
DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing in the diagram to show how data is processed in Webex Teams. Not all options are used.



Answer:

Explanation:



Question: 155

Refer to the exhibit.

```

#k8s-nginx. yml
apiVersion: apps/v1
kind: Deployment metadata:
  name: nginx-deployment
  labels: app: nginx
spec:
  replicas: 1 selector:
    matchLabels: app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: nginx ports:
            - name: nginx-port
              containerPort: 80

apiVersion: v1 kind: Service
metadata:
  name: load-balancer
spec:
  selector: app: nginx ports:
    - port: 80
      targetPort: nginx-port
  type: LoadBalancer

```

Refer to the exhibit. The presented application consists of a Nginx container and a load balancer service. Which GitLab CI/CD configuration implements the Kubernetes deployment?

A.

```
Deploy:
  stage: Deployment
  script:
    - kubectl exec -k k8s-nginx.yml
```

B.

```
Deploy:
  stage: Deployment
  script:
    - kubectl apply -f k8s-nginx.yml
```

C.

```
Deploy:
  stage: Deployment
  script:
    - kubectl apply -k k8s-nginx.yml /patch/to/cluster
```

D.

```
Deploy:
  stage: Deployment
  script:
    - kubectl exec -f k8s-nginx.yml /patch/to/cluster
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

Explanation:

<https://kubernetes.io/docs/reference/kubectl/kubectl/>

Question: 156

What are two benefits of using distributed log collectors? (Choose two.)

- A. supports multiple transport protocols such as TCP/UDP
- B. improves performance and reduces resource consumption
- C. provides flexibility due to a wide range of plugins and accepted log formats
- D. enables extension of logs with fields and export to backend systems
- E. buffers and resends data when the network is unavailable

Answer: BE

Explanation:

Question: 157

What are two features of On-Box Python for hosting an application on a network device?
(Choose two.)

- A. It has direct access to Cisco IOS XE CLI commands.
- B. It is a Python interpreter installed inside the guest shell.
- C. It enables execution of XML scripts on a Cisco IOS XE router or switch.
- D. It supports Qt for graphical interfaces and dashboards.
- E. It has access to Cisco IOS XE web UI through a controller.

Answer: AB

Explanation:

Reference: https://blog.wimwauters.com/networkprogrammability/2020-06-08_guestshell_onbox/

Question: 158

Refer to the exhibit.

```
[all :vars] ansible_connection= ansible user=admin
ansible network os=ios
```

An engineer is configuring Ansible to run playbooks against Cisco IOS XE Software. What should be configured in ansible.cfg as the connection type?

- A. network_cli
- B. ssh
- C. shell
- D. command

Answer: B

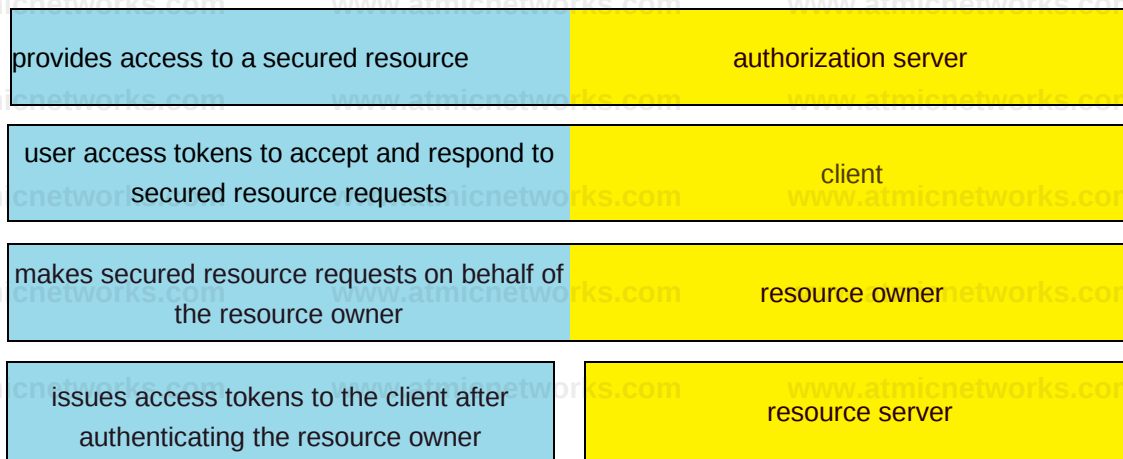
Explanation:

Reference: https://docs.ansible.com/ansible/latest/user_guide/intro_inventory.html

Question: 159

DRAG DROP

Drag and drop the descriptions from the left onto the related OAuth-defined roles on the right.



Answer:

Explanation:

issues access tokens to the client after
authenticating the resource owner

makes secured resource requests
on behalf of the resource owner

user access tokens to accept and
respond to secured resource requests

provides access to a secured resource

Question: 160

A local Docker container with a Container ID of 391441516e7a is running a Python application. Which command is used to connect to a bash shell in the running container?

- A. `docker attach <Container ID>`
- B. `docker exec -it <Container ID> /bin/bash`
- C. `docker run -a stdin -a stdout <Container ID> /bin/bash`
- D. `docker container attach <Container ID>`

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Explanation:

Question: 161

Refer to the exhibit.

```
"version": "3.0",
"secret": "supersecret",
"type": "WiFi",
"data": {
  "networkId": "L 00000000000391274",
  "observations": [
    {
      "locations": [],
      "ipv4": null,
      "ssid": null, "os": null,
      "interface": "cc:cc:66:88:85:23"
    },
    {
      "latestRecord": {
        "time": "2020-10-19T10:23:21z",
        "nearestApMac": "aa:aa:22:56:2e:42",
        "nearestApRssi": "-62"
      }
    }
  ]
}
```

Refer to the exhibit. The JSON response is received from the Meraki location API. Which parameter is missing?

- A. apMac
- B. clientMac
- C. clientId
- D. accesspoint

Answer: B

Explanation:

Reference: <https://community.meraki.com/t5/Developers-APIs/Location-lat-lng-and-x-y-are-showing-similar-for-all-devices/td-p/65707>

Question: 162

Which two gRPC modes of model-driven telemetry are supported on Cisco IOS XE Software? (Choose two.)

- A. dial-in
- B. dial-out
- C. call-in
- D. call-out
- E. passive

Answer: AB

Explanation:

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1612/](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1612/b_1612_programmability_cg/model_driven_telemetry.html#id_86392)

[b_1612_programmability_cg/model_driven_telemetry.html#id_86392](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1612/b_1612_programmability_cg/model_driven_telemetry.html#id_86392)

Question: 163

Refer to the exhibit.

```

1 {
2   "version": ,
3   "secret": "supersecret", "type": "DevicesSeen", "data": {
4     "apMac": "00:18:0a:13:dd:b0
5     "apFloors": [], "apTags": [ "dev",
6     "home", "test"

```

12 Which parameter is missing from the JSON response to confirm the API version that is used?

- A. version 4
- B. v 10
- C. 2
- D. version 2

Answer: C

Explanation:

Question: 164

What is a capability of the End User Monitoring feature of the AppDynamics platform?

- A. discovers traffic flows, nodes, and transport connections where network or application/network issues are developing
- B. monitoring local processes, services, and resource use, to explain problematic server performance
- C. identifies the slowest mobile and IoT network requests, to locate the cause of problems
- D. provides metrics on the performance of the database to troubleshoot performance-related issues

Answer: C

Explanation:

Reference: <https://docs.appdynamics.com/display/PRO21/Overview+of+End+User+Monitoring>

Question: 165

Refer to the exhibit.

```
$ git checkout release-2.1 Switched to branch 'release-2.1'
Your branch is up to date with 'origin/release-2.1'.

$ git add -A
& git commit -m "Demo" [release-2.1 6226cf6] Demo
 1 file changed, 3 insertions(+)
$ git merge dev
Auto-merging python/mac.py
CONFLICT (content): Merge conflict in python/mac.py
Automatic merge failed; fix conflicts and then commit the result
```

Refer to the exhibit. Which command resolves the merge conflict by removing the previous commit from the commit history?

- A. `git checkout mac.py`
- B. `git reset --hard HEAD~1`
- C. `git rebase --abort`
- D. `git revert -m 1 HEAD`

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

Explanation:

Question: 166

DRAG DROP

An engineer must access multiple bots that are running in an internal infrastructure. A different HTTPS URL is required for each bot. The infrastructure has just one public IP address and a Linux server with Apache installed. Drag and drop the actions from the left into the order of steps on the right to enable access to the bots inside. Not all options are used.

Configure "Let's Encrypt" on the bot servers	step 1
Enable a forward proxy in Apache	step 2
Configure Apache virtual hosts	step 3

Enable a reverse proxy in Apache

Configure an Apache htaccess file

Configure "Let's Encrypt" on the Apache server

Answer:

Explanation:

Configure Apache virtual hosts.

Configure "Let's Encrypt" on the Apache server.

Enable a reverse proxy in Apache.

Question: 167

What is the function of dependency management?

- A. separating code into modules that execute independently
- B. utilizing a single programming language/framework for each code project
- C. automating the identification and resolution of code dependencies
- D. managing and enforcing unique software version names or numbers

Answer: A

Explanation:

<https://devopedia.org/dependency-manager>

Question: 168

DRAG DROP

A network engineer needs to retrieve interface data using the Cisco IOS XE YANG Model. Drag and drop the components from the bottom onto the box where the code is missing to complete the RESTCONF URI. Not all options are used.

https:// {host}}:{{port}}/restconf/data/

	:		/

Cisco-native-IOS-XE

interface

native

Cisco-IOS-XE

Cisco-IOS-XE-native

IOS-XE-native

Answer:

Explanation:

https:// {host}}:{{port}}/restconf/data/

Cisco-IOS-XE-native : native /

interface

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/166/b_166_programmability_cg/restconf_prog_int.html

Question: 169

Refer to the exhibit.

```

module: ietf-interfaces

+--rw interfaces
|   +--rw interface* [name]
|   I +--rw name string
|   | +--rw description? string
|   I +--rw type identityref
|   I +--rw enabled? boolean
|   I +--rw link-up-down-trap -enable? enumeration {if-mib}?
+--ro interfaces-state
|   +--ro interface* [name]
|   |   +--ro name string
|   |   +--ro type identityref
|   |   +--ro admin-status enumeration {if-mib}?
|   |   +--ro oper-status enumeration
|   |   +--ro last-change? yang:date-and-time
|   |   +--ro if-index int32 {if-mib}?
|   |   +--ro phys-address? yang:phys-address
|   |   +--ro higher-layer-if* interface-state-ref
|   |   +--ro lower-layer-if* interface-state-ref
|   +--ro +-speed? yang:gauge64
|   ro statistics
|   |   +--ro discontinuity-time yang:date-and-time
|   |   +--ro in-octets? time
|   |   +--ro in-unicast-pkts? yang:counter64
|   |   +--ro in-broadcast-pkts? yang:counter64
|   |   +--ro in-multicast-pkts? yang:counter64
|   |   +--ro in-discards? yang:counter64
|   |   +--ro in-errors? yang:counter64
|   |   +--ro in-unknown-protos? yang:counter32
|   |   +--ro out-octets? yang:counter32
|   |   +--ro out-unicast-pkts? yang:counter64
|   |   +--ro out-broadcast-pkts? yang:counter64
|   |   +--ro out-multicast-pkts? yang:counter64
|   |   +--ro out-discards? yang:counter64
|   |   +--ro out-errors? yang:counter64
import requests
url = ("https://ios-xe-
mgmt.cisco.com:9443/restconf/data/ietf-interfaces:" +
"interfaces/interface=GigabitEthernet2")
headers = {
    'Accept': "application/yang-data+json",
    'Authorization': "Basic cm9vdDpEXlZheSFfMTAm",
    'Content-Type': "application" }
response = requests.request(rest_operation, url, data=payload, headers

```

```
= headers, verify=False)
print (response.text)
```

Refer to the exhibits. An interface named "GigabitEthernet2" has been configured on a Cisco IOS XE device. Using RESTCONF APIs as defined by the ietf-interfaces@2014-05-08.yang model, which two combinations of "rest_operation" and "payload" must be added to the Python script to set the "description" to "Configured by RESTCONF"? (Choose two.)

A.

```
rest_operation = "PATCH"

payload = " {\n    \"ietf-interfaces:interface\": {\n      \"name\": \"GigabitEthernet2\", \n      \"description\": \"Configured by RESTCONF\" \n    }\n}"
```

B.

```
rest_operation = "PUT"

payload = " {\n    \"ietf-interfaces:interface\": {\n      \"name\": \"GigabitEthernet2\", \n      \"description\": \"Configured by RESTCONF\" \n    }\n}"
```

C.

```
rest_operation = "PUT"

payload = "{\n  \"ietf-interfaces:interface\": {\n    \"name\": \"GigabitEthernet2\", \n    \"description\": \"Configured by RESTCONF\", \n    \"type\": \"iana-if-type:ethernetCsmacd\", \n    \"enabled\" true, \n    \"ietf-ip:ipv4\": {\n      \"address\": [\n        {\n          \"ip\": \"10.255.255.1\", \n          \"netmask\": \"255.255.255.0\" \n        }\n      ] \n    }\n  }\n}"
```

D.

```
rest_operation = "POST"

payload = " {\n    \"ietf-interfaces:interface\": {\n      \"name\": \"GigabitEthernet2\", \n      \"description\": \"Configured by RESTCONF\" \n    }\n}"
```

E.

```
rest_operation = "POST"

payload = "{\n  \"ietf-interfaces:interface\": {\n    \"name\": \"GigabitEthernet2\", \n    \"description\": \"Configured by RESTCONF\", \n    \"type\": \"iana-if-type:ethernetCsmacd\", \n    \"enabled\" true, \n    \"ietf-ip:ipv4\": {\n      \"address\": [\n        {\n          \"ip\": \"10.255.255.1\", \n          \"netmask\": \"255.255.255.0\" \n        }\n      ] \n    }\n  }\n}"
```

A. Option A

B. Option B

C. Option C

D. Option D

E. Option E

Answer: AB

Explanation:

Question: 170

What is a well-defined concept for GDPR compliance?

- A. Records that are relevant to an existing contract agreement can be retained as long as the contract is in effect.
- B. Data controllers must confirm to data subjects as to whether where, and why personal data is being processed.
- C. Personal data that was collected before the compliance standards were set do not need to be protected.
- D. Compliance standards apply to organizations that have a physical presence in Europe.

Answer: B

Explanation:

<https://gdpr.eu/article-13-personal-data-collected/>

Question: 171

Drag and drop the code snippets from the bottom onto the boxes where the code is missing to create a Cisco Webex meeting by using the Webex API. Not all options are used.

NAME	PUT
POST	
/vl/meetings	/vl/meetingmanager

Explanation:

www.atmic.com
/v1/meetingmanager

Question: 172

Refer to the exhibit.

```
module Cisco-IOS-XE-native {
  *rw c>dvt
  *rw int<r<<c<
  *--rw GigabitEthernet<r.m;
  I | *--rw name Bering
  I | *--rw iwdla-type? enumeration
  I | *--rw port-type? enumeration
  I | *--rw description? string
  *--rw switchport-conf
  I | *--rw switchport? boolean
  I | *--rw switchport ilos-features<awicching-platformml i
  I | *--rw link? uintl
  I | *--rw dual-active-detection? empty
  I | *--rw mac-address? string
  I | *--rw shutdown? empty
  *--rw arp i I *--rw timeout? uintH
  *--rw attackwise-virtual
}
```

Interface Loopback 1 must be created with IP address 10.30.0.1/24 in a Cisco IOS XE device using RESTCONF. The schema that is defined by the exhibit must be used. Which body and URI should be used for this operation?

A)

```
FVT testcon1 data-Cisco-IOS-XE-native:native interfaces 1 "Loopback"j [{ *name": "1%"description*i "Loopback 1 * description", *Vt I "address"i |
"primary: I "address": 10.>0.0.1", "mask"! **255.255.255.0" I
1)
```

B)

```
restconf/data/Cisco-IOS-XE-native:native/interfaces
"LoopbackX": { "name": "1", "description": "Loopback 1 - description", "If: I
"address": {
"primary": { "address": "10.30.0.1",
"mask": "24" )
1
```

C)

```
POST
/restconf/data/Cisco-IOS-XE-native:native/interface
{
  "Loopback": {
    "name": "1",
    "description": "Loopback 1 - description",
    "ip": {
      "address": {
        "primary": { "address": "10.30.0.1",
          "mask": "255.255.255.0" }
      }
    }
  }
}
```

D)

```

#PUT
/restconf/data/Cisco-IOS-XE-native:interface
{
  "Loopback": {
    "name": "1",
    "description": "Loopback 1 - description",
    "ip": {
      "address": {
        "primary": { "address": "10.10.0.1",
          "mask": "24" }
      }
    }
  }
}

```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Explanation:

Question: 173

Refer to the exhibit.

```

<0 is>
- runel Base config teapL ioa config:

```

```

lowing battered 10240
* service tieeataapa debug date tie* Mee Jocelttee shoe* tine tone
- service tieestaape log dateline m>eq 1 ocaltee shoe-tinetone

```

Which word is missing from this Ansible playbook shown, to allow the Cisco IOS XE commands for router configuration to be pushed after the playbook is executed?

- A. Commands
- B. Input
- C. Lines
- D. config