

Cisco

Exam Questions 200-901

Developing Applications and Automating Workflows using Cisco Core Platforms (DEVASC)



NEW QUESTION 1

- (Exam Topic 2)

What is a capability of the NETCONF protocol?

- A. allows Python scripts to be executed externally from a network device
- B. uses JSON to encode data in its content layer
- C. allows XML messages to be exchanged via the SSH protocol
- D. exposes a web-based interface

Answer: C

NEW QUESTION 2

- (Exam Topic 2)

Refer to the exhibit.

```
import requests
from requests.auth import HTTPBasicAuth
headers = {'Content-Type': 'application/json'}
base_url = 'https://10.1.2.3'
auth_url = '/dna/system/api/v1/auth/token'
devices_url = '/dna/intent/api/v1/network-device'

token = requests.post(
    base_url + auth_url, headers=headers,
    auth=HTTPBasicAuth(username="admin", password="DevNet123"))
data = token.json()

query_string_params = {'platformId': 'C9500-40X'}
response = requests.get(
    base_url + devices_url, headers=headers,
    params=query_string_params)
print(f'{response.code}')
```

A network engineer must manage the network devices. The engineer prepares a Python scripts to authenticate to the Cisco to DNA Center API and request a device list. The device request fails and returns errors code 401. Which action solves the problem?

- A. Update the API UR
- B. which matched the API endpoint for device list.
- C. Send the request to another network in case there are reachability Issues.
- D. Send the Authentication header In the request with a valid configuration.
- E. Update the credentials that are already supplied and retry the request

Answer: D

NEW QUESTION 3

- (Exam Topic 2)

Drag and drop the types of management from the left onto the levels at which they are performed on the right.

user and programmability interaction through the use of lower level APIs

user and programmability interaction through the use of Northbound APIs

iterate over a list of devices

configure features with YANG models

Controller level

Device level

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated with medium confidence

NEW QUESTION 4

- (Exam Topic 2)

Which protocol runs over TCP port 23?

- A. SSH

- B. NETCONF
- C. HTTP
- D. Telnet

Answer: D

NEW QUESTION 5

- (Exam Topic 2)

Drag and drop the Dockerfile instructions from the left onto the descriptions on the right. Not all options are used.

FROM ubuntu:12.04	informs Docker that the container listens on the specified network port(s) at runtime
VOLUME["/var/www","/var/log/apache2","/etc/apache2"]	creates a mount point with the specified name
RUN apt-get update && apt-get install -y --force-yes apache2	configures a container that runs as an executable
ENTRYPOINT["/usr/sbin/apache2ctl","-D","FOREGROUND"]	must be the first instruction in the Docker file
EXPOSE 1521	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated

NEW QUESTION 6

- (Exam Topic 2)

Refer to the exhibit.

```
1 import requests
2 import json
3
4 BASE_URL = "https://<IP Address>"
5 FIRST_URL = "/dna/intent/api/v1/network-device"
6 SECOND_URL = "/dna/intent/api/v1/network-device-poller/cli/read-request"
7 THIRD_URL = "/dna/intent/api/v1/task/{task_id}"
8 FOURTH_URL = "/dna/intent/api/v1/file/{file_id}"
9
10 headers = {"X-Auth-Token": "TOKEN", "Content-Type": "application/json"}
11
12 params = {"platformId": "C9500-40X"}
13 response = requests.get(BASE_URL + FIRST_URL, headers=headers, params=params)
14 devices = []
15 for device in response.json()["response"]:
16     devices.append(device["id"])
17
18     payload = {
19         "commands": ["show version", "show ip int brief"],
20         "deviceUids": devices,
21         "timeout": 0,
22     }
23 response = requests.post(BASE_URL + SECOND_URL, data=json.dumps(payload),
24     · headers=headers)
25 task_id = response.json()["response"]["taskId"]
26 response = requests.get(BASE_URL + THIRD_URL.format(task_id=task_id),
27     · headers=headers)
28 progress_json = json.loads(response.json()["response"]["progress"])
29 file_id = progress_json("fileId")
30 response = requests.get(BASE_URL + FOURTH_URL.format(file_id=file_id),
31     · headers=headers)
32 file_json = response.json()
33 for cmd in file_json:
34     print(file_json[cmd]["commandResponses"]["SUCCESS"]["show ip int brief"])
```

A network engineer must collect information from the network using Cisco DNA Center APIs. The script must query for the devices with 'platformId' 'C9540-x' and then send commands to be executed. Which process is automated by the Python script?

- A. results gathering of the show version and show ip int brief commands

- B. output of show ip int brief command on devices of type C9500-40X
- C. execution information of the show version and show ip int brief commands
- D. list of executed commands on C9500-40X and the information of show ip int brief command

Answer: B

NEW QUESTION 7

- (Exam Topic 2)

Drag and drop the code from the bottom onto the box where the code is missing in the Python script to complete a function to return all the clients on a network by using the Cisco Meraki Dashboard API. Not all options are used.

```
import requests
import json
url = 'https://dashboard.meraki.com/api/v0/'
headers = {' ': '0110c4e1b8a1',
           'Content-Type': ' '}
orgs = json.loads(requests.get(url+'organizations', headers=headers).text)

for org in orgs:
    nets = json.loads(requests.get(url+'organizations/'+org['id']+'/networks',
    headers=headers).text)
    for net in nets:
        clients = json.loads(requests.get(
            url+ ' /'+net['id']+' / ',
            headers=headers).text)
        for client in clients:
            print(client['ip'])
```

client

application/json

application/xml

clients

X-Cisco-Meraki-API-Key

networks

Authorization: Bearer

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

```
import requests
import json
url = 'https://dashboard.meraki.com/api/v0/'
headers = {' X-Cisco-Meraki-API-Key ': '0110c4e1b8a1',
           'Content-Type': ' application/json '}
orgs = json.loads(requests.get(url+'organizations', headers=headers).text)

for org in orgs:
    nets = json.loads(requests.get(url+'organizations/'+org['id']+'/networks',
    headers=headers).text)
    for net in nets:
        clients = json.loads(requests.get(
            url+ ' clients /'+net['id']+' networks ',
            headers=headers).text)
        for client in clients:
            print(client['ip'])
```

client

application/xml

Authorization: Bearer

NEW QUESTION 8

- (Exam Topic 2)

Refer to the exhibit.


```

1  from requests import request
2  from requests.auth import HTTPBasicAuth
3  from sys import argv
4  url = "https://" + argv[1] + ":443/restconf/data/native/ip/route"
5  auth = HTTPBasicAuth('developer', 'Cisc012345')
6  payload = {
7      "Cisco-IOS-XE-native:route": {
8          "ip-route-interface-forwarding-list": [
9              {
10                 "prefix": argv[2],
11                 "mask": argv[3],
12                 "fwd-list": [
13                     {
14                         "fwd": "GigabitEthernet2",
15                         "interface-next-hop": [
16                             {
17                                 "ip-address": argv[4]
18                             }
19                         ]
20                     }
21                 ]
22             }
23         ]
24     }
25 }
26 headers = {
27     'Content-Type': 'application/yang-data+json',
28     'Accept': 'application/yang-data+json',
29 }
30 response = request("PATCH", url, auth=auth, headers=headers, json = payload,
31                     verify=False)

```

A network engineer must change the configuration on devices daily. The Python script must collect CLI arguments from the user, organize data according to the Cisco-IOS-XE-native YANG model, and utilize Cisco REST APIs to make the configuration. Which workflow is being automated by the Python script?

- A. updating an existing route on the device
- B. adding a new route to a device
- C. including a route on the device and overwriting the current routes
- D. deleting the route that is passed through the command-line variables

Answer: A

NEW QUESTION 9

- (Exam Topic 2)

Refer to the exhibit.

Generating Client ID and API Key:

- Log in to your AMP for Endpoints Console.
- Go to Accounts > Business Settings.
- Click Configure API Credentials under Features to generate the Client ID and secure API Key.

Once you have the API client ID and API key, you can make the API calls as follows:

```
https://<your_client_id>:<your_api_key>@<api_endpoint>
```

Alternatively you can use Basic HTTP Authentication. Base 64 encode the string ":", and send that prefixed with the string "Basic" as the authorization header. For instance, if your client_id was 1234, and your api_key was "atest", then it would be base64 encoded to "MTIzNDphdGVzdA==", and your header would be:

```
Authorization: Basic MTIzNDphdGVzdA==
```

The documentation outlines how to use credentials for the AMP API Which script successfully performs an API call using basic authentication?

A)

```

import requests
amp_client_id = 'a1b2c3d4e5f6g7h8i9j0'
amp_login_password = 'l0g1n_p@ssw0rd'
url = 'https://api.amp.cisco.com/v1/version'
request = requests.get(url,
    auth=(amp_client_id, amp_login_password))
print(request.json())

```

B)

```
import requests
amp_client_id = 'a1b2c3d4e5f6g7h8i9j0'
amp_api_key = 'a1b2c3d4-e5f6-g7h8-i9j0-k1l2m3n4o5p6'
url = 'https://api.amp.cisco.com/v1/version'
request = requests.get(url)
print(request.json())
```

C)

```
import requests
amp_auth_token = 'a1b2c3d4e5f6g7h8i9j0 k1l2m3n4o5p6'
url = 'https://api.amp.cisco.com/v1/version'
request = requests.get(url,
    auth=(amp_auth_token))
print(request.json())
```

D)

```
import requests
amp_client_id = 'a1b2c3d4e5f6g7h8i9j0'
amp_api_key = 'a1b2c3d4-e5f6-g7h8-i9j0-k1l2m3n4o5p6'
url = 'https://api.amp.cisco.com/v1/version'
request = requests.get(url,
    auth=(amp_client_id, amp_api_key))
print(request.json())
```

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

Answer: D

NEW QUESTION 10

- (Exam Topic 2)

A company wants to accelerate the adoption of technologies that will simplify its operations. Staff have different skill levels and are looking for a single site to find easy-to-consume beginner, intermediate, and advanced multidomain use cases. Which site should be used?

- A. DevNet Ecosystem Exchange
- B. DevNet Automation Exchange
- C. DevNet Creations
- D. DevNet Support Forum

Answer: D

NEW QUESTION 10

- (Exam Topic 2)

Refer to the exhibit.

API v1 documentation:

Authentication and authorization: Bearer Token
 Inventory endpoint: /api/v1/inventory
 Method: GET
 Response formats: text/html, application/json, application/html

Token:

dXNlcm5hbWU6cGFzc3dvcmQ=

Api call:

GET /api/v1/inventory HTTP/1.1
 Host: example.com

Response:

HTTP/1.1 401 Unauthorized

An API call is constructed to retrieve the inventory in XML format by using the API. The response to the call is 401 Unauthorized. Which two headers must be added to the API call? (Choose two.)

- ☐ Accept: application/xml
- ☐ Content-Type: application/xml
- ☐ Authentication: Bearer dXNlcm5hbWU6cGFzc3dvcmQ=
- ☐ Bearer-Token: dXNlcm5hbWU6cGFzc3dvcmQ=
- ☐ Authorization: Bearer dXNlcm5hbWU6cGFzc3dvcmQ=

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

Answer: BE

NEW QUESTION 12

- (Exam Topic 2)

Before which process is code review performed when version control is used?

- A. Branching code
- B. Merge of code
- C. Checkout of code
- D. Committing code

Answer: D

NEW QUESTION 13

- (Exam Topic 2)

What is the purpose of a MAC address on a network device?

- A. unique network address that identifies the network interface of a device
- B. unique network interlace address that is provided by the DHCP server
- C. unique hardware address that identifies the network interface of a device
- D. unique hardware interface address that is provided by the central switch

Answer: C

NEW QUESTION 15

- (Exam Topic 2)

How do XML and JSON compare regarding functionality?

- A. JSON natively supports arrays and XML does not natively support arrays.

- B. XML provides support for mapping data structures into host languages than JSON.
- C. XML provides more human readability than JSON.
- D. JSON provides support for data types than XML.

Answer: A

NEW QUESTION 18

- (Exam Topic 2)

Which API must an engineer use to change a netmask on a Cisco IOS XE device?

- A. Meraki
- B. RESTCONF/YANG
- C. SD-WAN
- D. DNAC

Answer: B

NEW QUESTION 21

- (Exam Topic 2)

In which two ways is an application characterized when interacting with a webhook? (Choose two.)

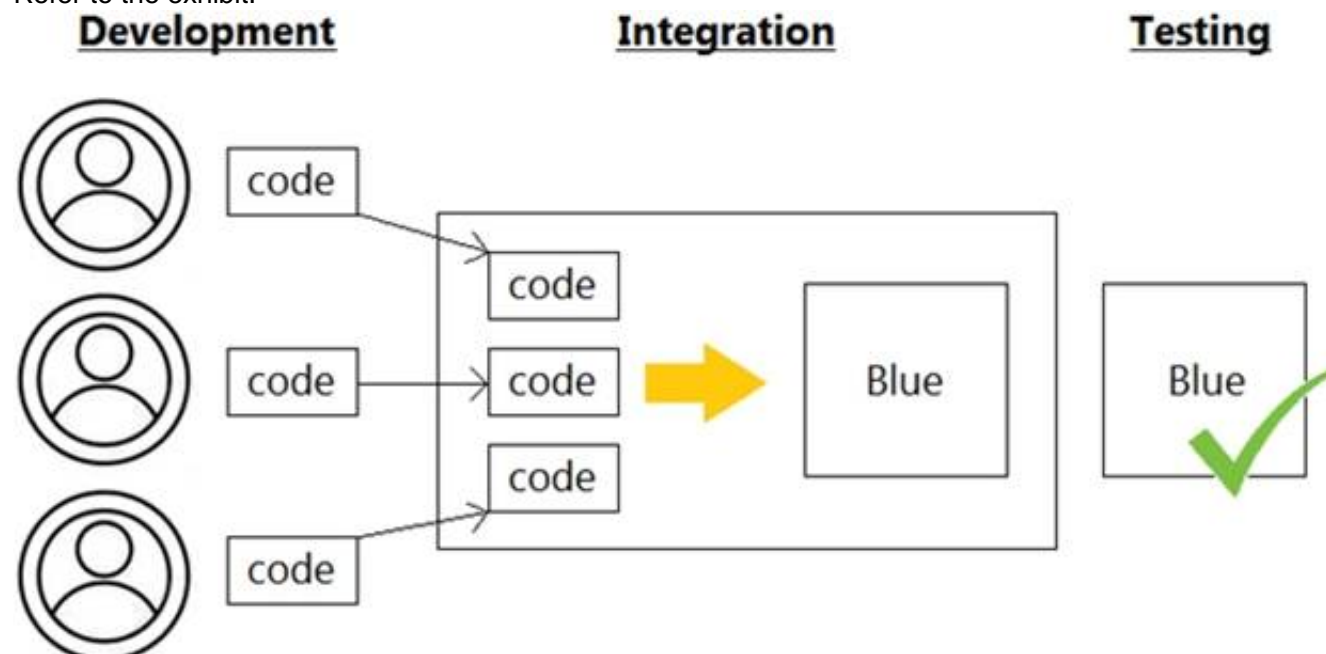
- A. codec
- B. receiver
- C. transaction monitor
- D. processor
- E. listener

Answer: BE

NEW QUESTION 23

- (Exam Topic 2)

Refer to the exhibit.



Which infrastructure automation method is shown?

- A. Waterfall
- B. CI/CD pipeline
- C. Agile
- D. Lean

Answer: C

NEW QUESTION 28

- (Exam Topic 2)

Drag and drop the code snippets from the bottom into the Python script to write API output to a csv file. Not all options are used.


```
#!/usr/bin/env python3
import csv
import json
import 
#Create a request to grab info in api
response = requests. ('http://api.zippopotam.us/us/80301')

try:
    with open('80301.json', 'w') as outfile:
        json.dump(response.json(), outfile)
    print(.json())
except Exception as e:
    print(e)

with open('80301.csv', 'w') as outfile:
    json.dump(response.json(), outfile)
print(response.)
```

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

NEW QUESTION 31

- (Exam Topic 2)

What is the difference between YAML and JSON data structure?

- A. YAML uses spaces; JSON uses parentheses
B. YAML uses indentation; JSON uses brackets and braces
C. YAML uses brackets and braces; JSON uses indentation
D. YAML uses parentheses; JSON uses spaces

Answer: A

NEW QUESTION 32

- (Exam Topic 2)

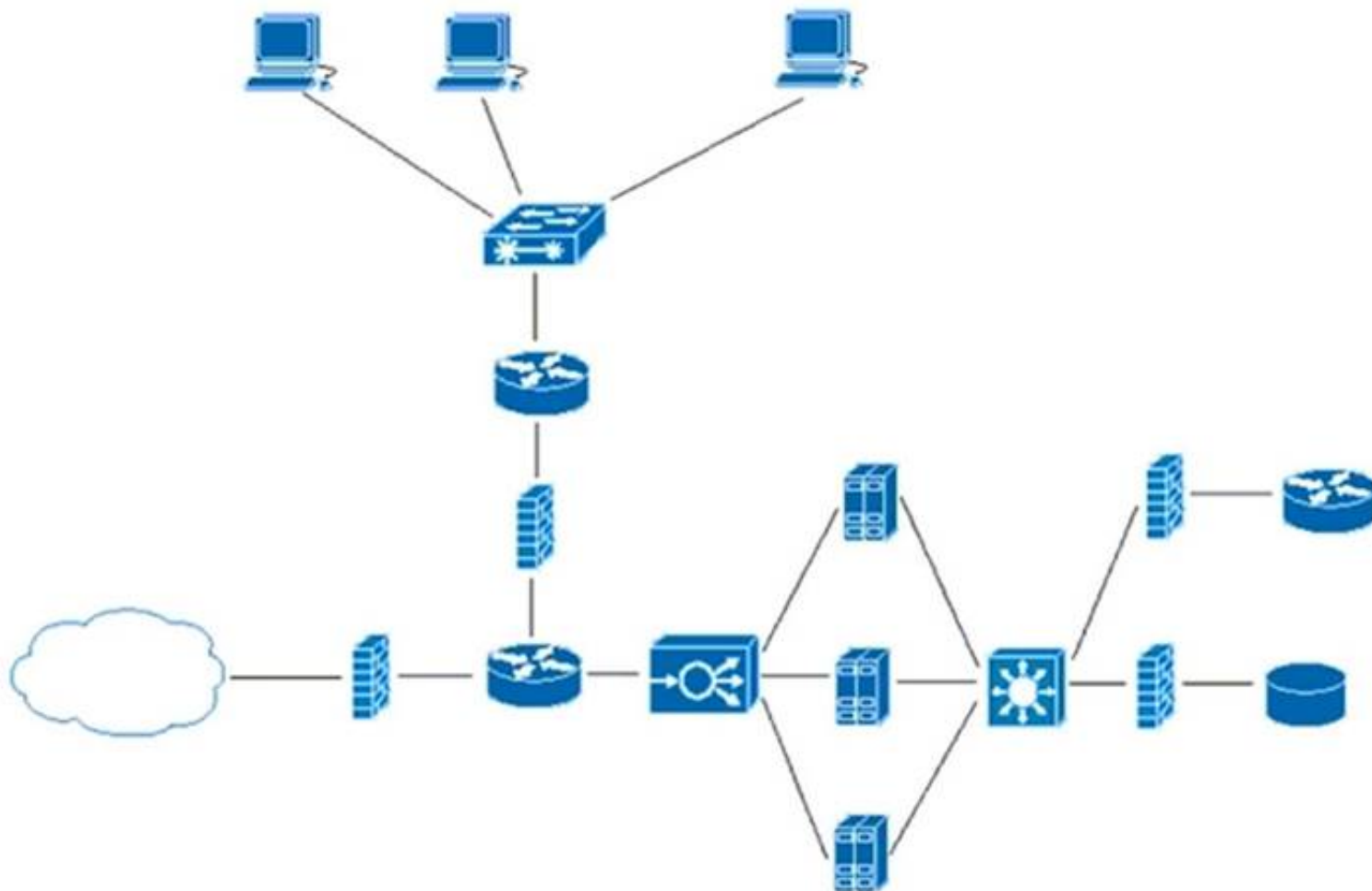
A developer is trying to retrieve data over a REST API. The API server responds with an HTTP client error response code. After investigating the response the developer realizes the response has a Retry-After header. What is the root cause of this error?

- A. The REST service is unreachable at the time of the REST request
B. Too many requests were sent to the REST service in a given amount of time.
C. An appliance limited the rate of requests to the transport layer.
D. An appliance limited the rate of requests to the application layer

Answer: B

NEW QUESTION 33

- (Exam Topic 2)



Refer to the exhibit. What does the load balancer enable in the network topology?

- A. hosted application to access Internet services
- B. external requests to be routed to the application servers
- C. workstations to access the Internet
- D. application to access the database server

Answer: C

NEW QUESTION 35

- (Exam Topic 2)

What is the purpose of the first three pairs of digits in a MAC address?

- A. defines a routing identifier for the client
- B. indicates the IP address of the client in Hex
- C. defines packet forwarding priority sent or received by the adapter
- D. indicates vendor of the network card or adapter

Answer: D

NEW QUESTION 40

- (Exam Topic 2)

What are two benefits of model-driven programmability?

- A. model-driven APIs for abstraction and simplification
- B. single choice of transport, protocol, and encoding
- C. model-based, structured, and human friendly
- D. easier to design, deploy, and manage APIs
- E. models decoupled from transport, protocol, and encoding

Answer: DE

NEW QUESTION 45

- (Exam Topic 2)

What are two use case where webhooks are effective? (Choose two.)

- A. Close a session with a web server after a specific amount of time.
- B. Filter out information from a response to an API call
- C. Change the response format or content type of an API call.
- D. Inform a previously defined chat channel after a deployment fate.
- E. Send an email to a customer of an online store after payment is complete

Answer: DE

NEW QUESTION 47

- (Exam Topic 2)

Which Cisco platform provides organization-wide automation, security, policy enforcement, any agility across wired and wireless networks?

- A. Cisco ACI
- B. Cisco DNA Center
- C. Cisco Umbrella
- D. Cisco SD-WAN

Answer: B

NEW QUESTION 52

- (Exam Topic 2)

Refer to the exhibit.

```
user_manager.py
1  import psycopg2
2  import json, sys
3
4  # Load config file
5  config = None
6  with open('config.json') as config_file:
7      config = json.load(config_file)
8  if not config:
9      print("Error loading configuration file.")
10     sys.exit(1)
11
12 connection = psycopg2.connect(
13     database="users",
14     host=config["DB_USER"], user=config["DB_USER"], password=config["DB_PWD"]
15 )
16 connection.set_session()
17
18 def has_admin_role(username):
19     with connection.cursor() as cursor:
20         query = 'SELECT admin_role FROM users WHERE username = {0}'
21         cursor.execute(query.format(username))
22         result = cursor.fetchone()
23     return result
24
25 has_admin_role("ops.shared")

config.json
1  {
2      "DB_USER": "pguser",
3      "DB_PWD": "@123Qwer%4",
4      "DB_HOST": "devnetdb.example.com"
5  }
```

An engineer must check the admin rights of users on a database regularly and prepares the Python script to automate the process. The script connects to the database and runs a query. What is a security issue about the secrets in the code that relates to secret protection?

- A. They must be stored in configuration files if there is a possibility of leakage.
- B. They must be Base64-encoded if stored in the user database.
- C. They must be encrypted if stored in the user database.
- D. They must be stored in configuration files if no authentication will be used.

Answer: D

NEW QUESTION 55

- (Exam Topic 2)

Refer to the exhibit.

```
Code:
import requests

url = 'https://en.wikipedia.org/api/rest_v1/page/title/Cisco_Systems'
s = requests.Session()

def get_json(session=None, url="https://example.com"):
    try:
        if not session or type(session) is not requests.sessions.Session:
            raise Exception("Invalid session type")

        r = session.get(url)

        if r.status_code < 200 or r.status_code > 307:
            raise Exception("Status Code not within 2xx and 3xx")

        return r.json()

    except requests.exceptions.RequestException as e:
        raise e("Request failed")
    finally:
        session.close()

if __name__ == "__main__":
    items = get_json(session=s, url=url)
    [ ]

payload:
{'items': [{'title': 'Cisco Systems', 'page_id': 51746, 'rev': 930604297,
'tid': '58b40b30-20e7-11ea-a7a9-f1850c7cfe85', 'namespace': 0, 'user_id':
19450869, 'user_text': 'Dhruvh', 'timestamp': '2019-12-13T16:47:52Z', 'comment': '/* 1984-1995: Origins
and initial growth */', 'tags': [], 'restrictions': [], 'page_language':
'en', 'redirect': False}]}
```

Which command needs to be placed on the box where the code is missing to output the value of page_id in the Python 3.7 script?

A)

```
print(items['items']['page_id'])
```

B)

```
print(items.get('items').get('page_id'))
```

C)

```
print(items.get('items')[0].get('page_id'))
```

D)

```
print(items['items']['page_id'].keys())
```

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

Answer: C

NEW QUESTION 57

- (Exam Topic 2)

Drag and drop the code snippets from the bottom to the blanks in the code to complete the HTTP response. Not all options are used.


```
Request URL: http://www.example.com/

: GET
: 200 OK

Remote Address: [2606:2800:220:1:248:1893:25c8:1946]:80
Referrer Policy: strict-origin-when-cross-origin
Response Headersview source
Accept-Ranges: bytes
Age: 396561
Cache-Control: max-age=604800
: gzip
Content-Length: 648
: text/html; charset=UTF-8

Date: Sat, 20 Nov 2020 20:49:34 GMT
Etag: "3147526947+ident"
Expires: Sat, 21 Nov 2020 20:49:34 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECS (dna/63AA)
Vary: Accept-Encoding
X-Cache: HIT

Request Headersview source
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,
image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9
```

Request Type	Request Control
Status Code	Content-Type
Request Method	Content Code
Content-Encoding	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

NEW QUESTION 60

- (Exam Topic 2)

class Native.Interface.FastEthernet

Bases: Entity

Class Hierarchy: Native Interface FastEthernet

This class represents configuration data.

FastEthernet IEEE 802.3

name(key)

type: str

pattern: ([0-9]/([0-9]/([1-3][0-9])4[0-8]([0-9])\([0-9])+)?)

description

Interface specific description

type: str

pattern: *

flowcontrol

Configure flow operation

type: Flowcontrol

isis

IS-IS commands

type: Isis

keepalive

Enable keepalive

type: bool

keepalive_settings

type: KeepaliveSettings

Refer to the exhibit. Drag and drop the code snippets from the bottom to the blanks in the code to enable keepalive for the FastEthernet 2/0 interface. Not all options are used.

```
from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco ios xe import Cisco IOS XE native as model
ip = '10.10.20.48'
prtc1 = 'ssh'
user = 'developer'
psw = 'P@s$W0rD'
port = 830
provider = nc(address=ip, port=port, username=user, password=psw, protocol=prtc1)
crud = CRUDService()

interface.name = '2/0'

if interface data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')
```

```
interface_data = crud.update(provider, interface)
interface.keepalive = True
interface_data = crud.read(provider, interface)
interface = model.Native.Interface.FastEthernet()
interface.FastEthernet.keepalive_settings.keepalive = True
interface = model.Native.Interface()
```

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

```
from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco ios xe import Cisco IOS XE native as model
ip = '10.10.20.48'
prtc1 = 'ssh'
user = 'developer'
psw = 'P@s$W0rD'
port = 830
provider = nc(address=ip, port=port, username=user, password=psw, protocol=prtc1)
crud = CRUDService()

interface = model.Native.Interface.FastEthernet()
interface.name = '2/0'
interface.keepalive = True
interface_data = crud.read(provider, interface)

if interface data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')
```

```
interface_data = crud.update(provider, interface)

interface.FastEthernet.keepalive_settings.keepalive = True
interface = model.Native.Interface()
```

NEW QUESTION 64

- (Exam Topic 2)

What are two benefits of using VLANs? (Choose two.)

- A. limits the devices that can join the network
 B. segments the broadcast domain
 C. extends the broadcast domain
 D. allows all network devices to be accessible from any host on the network
 E. enables the logical grouping of devices that belong to different Layer 2 devices

Answer: BE

NEW QUESTION 67

- (Exam Topic 2)

A company is adopting DevOps as part of an internal transformation, and is reviewing the success of the first deployments. Developers and engineers are working together to resolve any resulting issues. However, this new way of working has increased overhead, and the team is finding it difficult to complete releases in time. Which area of the CALMS framework must the company target for improvement?

- A. Collaboration
- B. Lean
- C. Sharing
- D. Measurement

Answer: B

Explanation:

Reference: <https://blog.sonatype.com/principle-based-devops-frameworks-calms>

NEW QUESTION 69

- (Exam Topic 2)

Refer to the exhibit.

```
FROM nginx

ARG DELAY="30"
ENV INITIAL_DELAY=${DELAY}

ENTRYPOINT ["/bin/sh"]

CMD ["-c", "/bin/sleep ${INITIAL_DELAY} && nginx -g 'daemon off;']
```

Which command, including arguments, is executed when the container starts?

- A. /bin/sh -c "/bin/sleep 30 && nginx -g 'daemon off;'"
- B. /bin/sh -c "/bin/sleep 10 && nginx -g 'daemon off;'"
- C. /bin/bash -c "/bin/sleep 30 && nginx -g 'daemon off;'"
- D. /bin/sh -c "/bin/sleep 30" && nginx -g 'daemon off;'

Answer: A

NEW QUESTION 73

- (Exam Topic 2)

What is a benefit of model-driven programmability?

- A. It addresses the static architecture of traditional networks being decentralized and complex.
- B. By modeling data, it ensures that vast quantities of data are usable for monitoring.
- C. It provides a programmatic and standards-based way of writing configurations to any network device.
- D. It simplifies management and operations by decoupling the networking hardware from its control mechanism.

Answer: D

NEW QUESTION 75

- (Exam Topic 2)

Refer to the exhibit.

Local File Attachments

To send local file attachments, simply post a message by including your access token in the Authorization header and the path to your local file with the files parameter. Optionally, you can also include a plain-text message with the attachment by using the text parameter. When uploading files directly from your local filesystem, your request will need to be a multipart/form-data request rather than JSON

```
curl --request POST \
  --form "files=@/home/desktop/example.png;type=image/png" \
  --form "roomId=Y21zY2....." \
  --form "text=example attached" \
  https://webexapis.com/v1/messages
```

A developer needs to upload a local file by using the REST API. The developer gathers information according to the documentation and sends the request by using the cURL command in the exhibit but gets an error code. Which action should be followed to get valid response?

- A. change content type as JSON

- B. add the authorization header with the access token
- C. add a username-password combination to request command
- D. change request method as GET

Answer: B

Explanation:

Reference: <https://developer.webex.com/docs/api/basics>

NEW QUESTION 76

- (Exam Topic 2)

Refer to the exhibit.

```
1  - hosts: servers
2      tasks:
3
4      - name: task1
5          apt:
6              name: apache2
7              state: absent
8
9      - name: task2
10         apt:
11             name: nginx
12             state: present
13
14     - name: task3
15         apt:
16             name: "*"
17             state: latest
```

A developer must check packages on web load balancers that use nginx packages. The developer updates the servers as required in Ansible inventory and prepares an Ansible playbook to automate this workflow on related servers. Which process is being automated by the Ansible playbook?

- A. verifying that nginx is installed only if apache2 is unavailable on the system, and then updating all the other packages
- B. verifying, without installing, that apache2 is unavailable and that nginx is installed, and then updating the repository to the latest version
- C. uninstalling the apache2 server, installing the nginx server, and then updating all the packages to the latest version
- D. installing nginx, uninstalling apache2, and then verifying that the package repository is at the latest version

Answer: B

NEW QUESTION 78

- (Exam Topic 2)

What is a difference between a synchronous API and an asynchronous API?

- A. An asynchronous API can make offline calls while synchronous APIs do not have this capability.
- B. Synchronous API calls are returned immediately while asynchronous calls do not guarantee an immediate response.
- C. Synchronous API calls require an authentication header to be sent while asynchronous calls do not require authentication.
- D. An asynchronous API can make a larger number of calls in a specified time period than a synchronous API.

Answer: B

Explanation:

Reference:

<https://stackoverflow.com/questions/36213948/what-is-the-difference-between-asynchronous-calls-and-callback>

NEW QUESTION 79

- (Exam Topic 2)

Refer to the exhibit.


```
1 #/bin/bash
2
3 curl https://ciscoDevnet.com/devnet-0.13.tar.gz -o /tmp/devnet.tar.gz
4 tar -zxvf /tmp/devnet.tar.gz
5 mkdir /tmp/devnet && pushd /tmp/devnet
6
7 ./configure && make && make install
8
9 systemctl enable devnet
10 systemctl start devnet
```

A network engineer works on a Cisco DevNet application that is available for download on the Cisco DevNet website. The engineer prepares a bash script to automate operations that relate to the application. Which workflow is being automated in the bash script?

- A. compilation and configuration of the Cisco DevNet application so that it must be started manually
- B. compilation, installation, and configuration of the Cisco DevNet application so that it starts automatically
- C. compilation and installation of the Cisco DevNet application for an autonomous deployment model
- D. installation and configuration of the Cisco DevNet application so that it starts manually

Answer: B

NEW QUESTION 84

- (Exam Topic 2)

What is used in JSON to represent a Python Tuple?

- A. Object
- B. Array
- C. Dict
- D. Collection

Answer: B

NEW QUESTION 89

- (Exam Topic 2)

How are load balancers used in modern application deployment?

- A. Allow traffic to continue as new compute units are brought up and old compute units are taken down.
- B. Allow http and https traffic to continue as old compute units are discontinued before new units are brought up.
- C. Turn off traffic and take down compute units, then update and bring the compute units back up.
- D. Bring up new compute units, test the compute units, and switch the traffic from old units to new units.

Answer: D

NEW QUESTION 94

- (Exam Topic 2)

Refer to the exhibit.

```
>>> response_data = requests.get(base_url + request_url, cookies=cookies)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'requests' is not defined
>>>
```

A Python code has been written to query a device. The executed code results in the error shown. Which action resolves the problem?

- A. import json
- B. requests("GET", base_url + request_url, cookies=cookies)
- C. pip install requests
- D. import requests

Answer: D

NEW QUESTION 99

- (Exam Topic 2)

Refer to the exhibit.

```

module ietf-ip {
  namespace "urn:ietf:params:xml:ns:yang:ietf-ip";
  prefix ip;
  import ietf-interfaces {
    prefix if;
  }
  augment "/if:interfaces/if:interface" {
    container ipv4 {
      leaf enabled {
        type boolean;
        default true;
      }
      list address {
        key "ip";
        leaf ip {
          type inet:ipv4-address-no-zone;
        }
        choice subnet {
          mandatory true;
          leaf prefix-length {
            type uint8 {
              range "0..32";
            }
          }
          leaf netmask {
            type yang:dotted-quad;
          }
        }
      }
    }
  }
}

module ietf-interfaces {
  namespace "urn:ietf:params:xml:ns:yang:ietf-interfaces";
  prefix if;
  typedef interface-ref {
    type leafref {
      path "/if:interfaces/if:interface/if:name";
    }
  }
  container interfaces {
    list interface {
      key "name";
      leaf name {
        type string;
      }
      leaf description {
        type string;
      }
      leaf type {
        type identityref {
          base interface-type;
        }
        mandatory true;
      }
      leaf enabled {
        type boolean;
        default "true";
      }
    }
  }
}

```

Which JSON snippet configures a new interface according to YANG model?

A)

```

{"ietf-interfaces:interface": {
  "name": "Loopback100",
  "enabled": true,
  "ietf-ip:ipv4": {
    "address": [
      {
        "ip": "10.255.254.1",
        "netmask": "255.255.255.0"
      }
    ]
  }
}

```

B)

```

{"ietf-interfaces": {
  interface: {
    "name": "Loopback100",
    "enabled": true,
    "ietf-ip": {
      ipv4: {
        "address": [
          {
            "ip": "10.255.254.1",
            "netmask": "255.255.255.0"
          }
        ]
      }
    }
  }
}

```

C)

```

{
  "interface" {
    "name": "Loopback100",
    "enabled": true,
    "ipv4": {
      "address": [
        {
          "ip": "10.255.254.1",
          "netmask": "255.255.255.0"
        }
      ]
    }
  }
}

```

D)

```

{"ietf-interfaces:interface": {
  "name": "Loopback100",
  "enabled": true,
  "ietf-ip:ipv4:address": [
    {
      "ip": "10.255.254.1",
      "netmask": "255.255.255.0"
    }
  ]
}

```

- A. Option A
- B. Option B

- C. Option C
- D. Option D

Answer: B

NEW QUESTION 101

- (Exam Topic 2)

```
1  import requests
2
3  headers = {"X-Cisco-Meraki-API-Key": "KEY1234"}
4  BASE_URL = "https://api-mp.meraki.com/api/v1"
5  FIRST_URL = "/organizations"
6  SECOND_URL = "/networks"
7  THIRD_URL = "clients"
8
9  def first_loop(info):
10     for item in info:
11         if item["name"] == "ACME":
12             URL = BASE_URL + FIRST_URL + "/" + item["id"] + "/" + SECOND_URL
13             response = requests.request("GET", URL, headers=headers)
14             return second_loop(response.json())
15
16  def second_loop(info):
17     for item in info:
18         if item["name"] == "BLDG21":
19             URL = BASE_URL + SECOND_URL + "/" + item["id"] + "/" + THIRD_URL
20             response = requests.request("GET", URL, headers=headers)
21             return third_loop(response.json())
22
23  def third_loop(info):
24     for item in info:
25         return item
26
27  response = requests.request("GET", BASE_URL + FIRST_URL, headers=headers)
28  info = first_loop(response.json())
29  for item in info:
30     print (item["id"])
```

Refer to the exhibit. A network engineer must collect information from the network. The engineer prepares a script to automate workflow by using Cisco Meraki API. The script must run over nested loops to collect organization and network information and uses the collected data for final collection. Which process is being automated by using the Python script?

- A. Gather the IDs of the ACME organization, the BLDG21 network, and the dents on the network
- B. Provide the BLDG21 network information if it is part of the ACME organization
- C. Collect the IDs of the clients on the BLDG21 network
- D. List the IDs from the ACME organization

Answer: A

NEW QUESTION 104

- (Exam Topic 2)

Which tool allows changes to the configuration management toolset to be tested?

- A. Cisco VIRL
- B. NAPALM
- C. Ansible
- D. pyATS

Answer: D

NEW QUESTION 105

- (Exam Topic 2)

What is a functionality of the Waterfall method as compared to the Agile method for software development?

- A. Waterfall increases agility to implement faster while Agile promotes reliability.
- B. A phase begins after the previous phase has ended in Waterfall while Agile phases run in parallel.
- C. Customers get feedback during the process in Waterfall while they can see the result at the end in Agile.
- D. Requirements can be updated in Waterfall while in Agile it should be gathered in the beginning.

Answer: B

NEW QUESTION 107

- (Exam Topic 2)

Which protocol must be allowed on the firewall so that NTP services work properly?

- A. ICMP
- B. BGP
- C. UDP
- D. TCP

Answer:

C

Explanation:

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/network-time-protocol-ntp/108076-ntp-troubleshoot.html>

NEW QUESTION 110

- (Exam Topic 2)

What are two key capabilities of Cisco Finesse? (Choose two.)

- A. Finesse includes an RPC API that enables the development of custom gadgets.
- B. Agents access Finesse from a browser without needing to install or configure anything on the client machine.
- C. Finesse automatically collects telemetry data
- D. An OpenDNS utility is preconfigured and ready to use on Finesse.
- E. Gadget containers provide a seamless experience in a single user interface.

Answer: BE

NEW QUESTION 112

- (Exam Topic 2)

```
HTTP/1.1 200 OK
Date: Mon, 27 Jul 2009 12:28:53 GMT
Server: nginx
Last-Modified: Wed, 22 Jan 2020 19:15:56 GMT
Content-Length: 88
Content-Type: application/json
Connection: keep-alive

{
  "id": "y123987jdkl",
  "status": "online",
  "type": "switch"
}
```

Which data is specified in the response header?

- A. {"id": "y123987jdkl". HTTP/1.1 200 OK"status: "online", "type": "switch"}
- B. HTTP/1.1 200 OK
- C. "type", "switch"
- D. Content-Type

Answer: B

NEW QUESTION 113

- (Exam Topic 1)

Fill in the blanks to complete the Python script to update the Webex Teams membership of a room using the Python requests library

```
import requests
url = "https://api.ciscospark.com/v1/memberships/Y2LzY29zcGfYazov371508156INISVAvOTJm2RkOWEiNjc1ZC00YTQxLTljNDEtMmFiZGY4OWY0NGY0QjExNzJkNmYwLTJlY2MtMTFiOS1iOWI3LWNmMjg3MTJhYTgzNw"

payload = [{"isModerator": true}]
headers = {
  'Authorization': 'Bearer ',
  'Content-Type': 'application/json'
}

response = requests. [ ] ("PATCH" url, headers= [ ], data = [ ])
print(response.text.encode('utf8'))
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

request, headers , payload

NEW QUESTION 118

- (Exam Topic 1)

What should a CI/CD pipeline aim to achieve?

- A. to allow manual testing before deployment

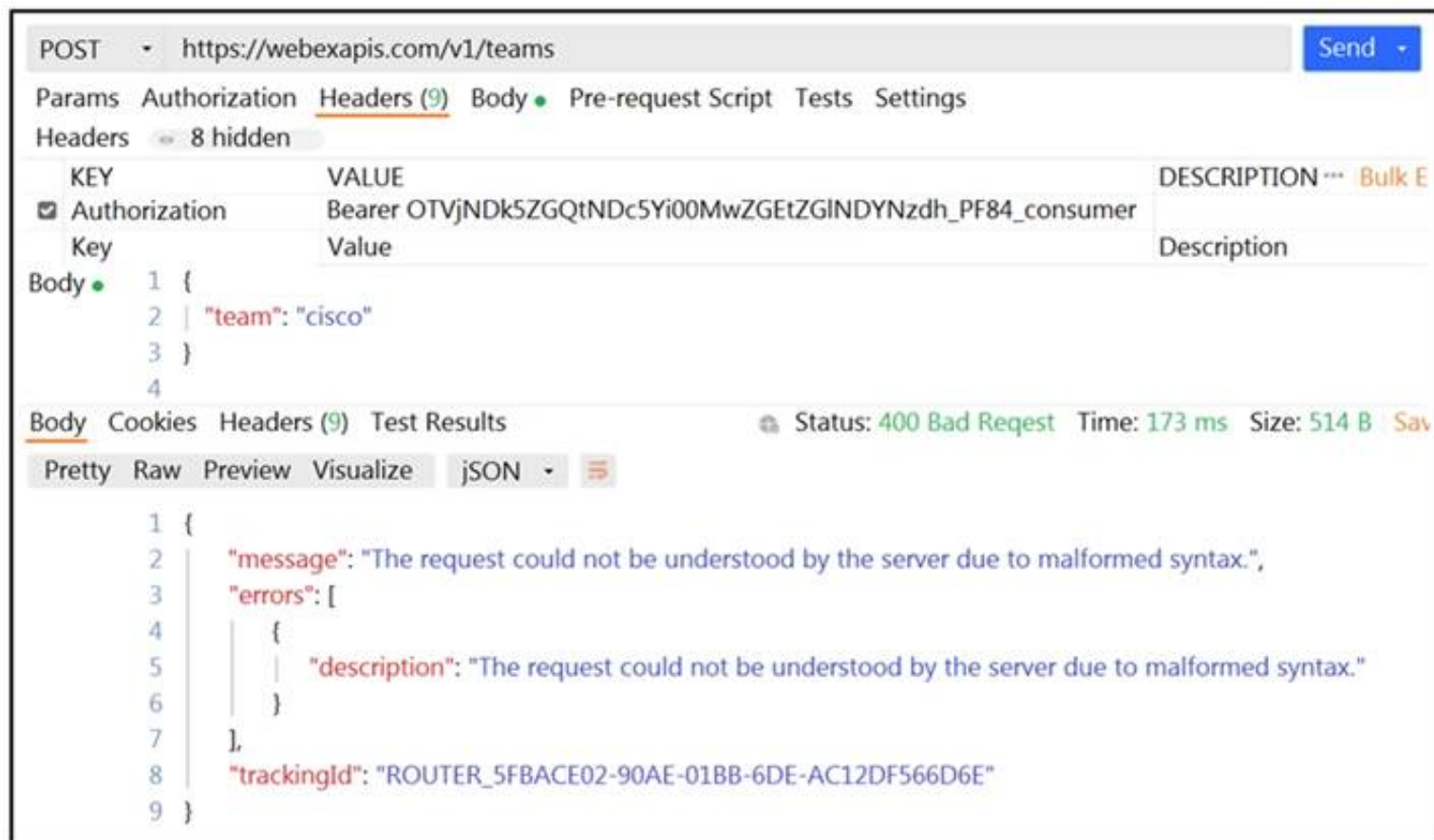
- B. to require minimal manual interaction
- C. to support new deployments on a fixed monthly schedule
- D. to provide a documented process for feedback

Answer: A

NEW QUESTION 119

- (Exam Topic 2)

Refer to the exhibit.



The screenshot shows a REST client interface with the following details:

- Method:** POST
- URL:** https://webexapis.com/v1/teams
- Headers:** 8 hidden. One header is visible: Authorization: Bearer OTVjNDk5ZGQtNDc5Yi00MwZGZtZGINDYNzdh_PF84_consumer
- Body:** A JSON object:

```
{  "team": "cisco"}
```
- Status:** 400 Bad Request
- Time:** 173 ms
- Size:** 514 B
- Response Body (JSON):**

```
{  "message": "The request could not be understood by the server due to malformed syntax.",  "errors": [    {      "description": "The request could not be understood by the server due to malformed syntax."    }  ],  "trackingId": "ROUTER_5FBACE02-90AE-01BB-6DE-AC12DF566D6E"}
```

A developer wants to create a room named cisco through Webex API. The developer prepares the request by putting an API token inside the authorization header; however, the given HTTP call returns error code 400. How must the call parameters be changed to ensure a valid response?

- A. Replace the team body parameter with the name body parameter.
- B. Replace cisco with a valid name for a team.
- C. Change the token in the header with the authorization token.
- D. Change the HTTP method of the call to PUT.

Answer: A

NEW QUESTION 123

- (Exam Topic 1)

Which action resolves a 401 error in response to an HTTP GET that is issued to retrieve statement using RESTCONF on a CSR 1000V?

- A. Change the HTTP method to PUT.
- B. Change the transport protocol to HTTPS.
- C. Check the MIMF types in the HTTP headers.
- D. Check the authentication credentials.

Answer: D

NEW QUESTION 124

- (Exam Topic 1)

What are two advantages of version control software? (Choose two.)

- A. It supports tracking and comparison of changes in binary formate files.
- B. It allows old versions of packaged applications to be hosted on the Internet
- C. It provides wiki collaboration software for documentation.
- D. It supports comparisons between revisions of source code files.
- E. It allows new team members to access the current code and history.

Answer: DE

NEW QUESTION 129

- (Exam Topic 1)

Refer to the exhibit.

```
class ucsm sdk.ucshandle.UcsHandle(ip, username, password, port=None, secure=None, proxy=None)
```

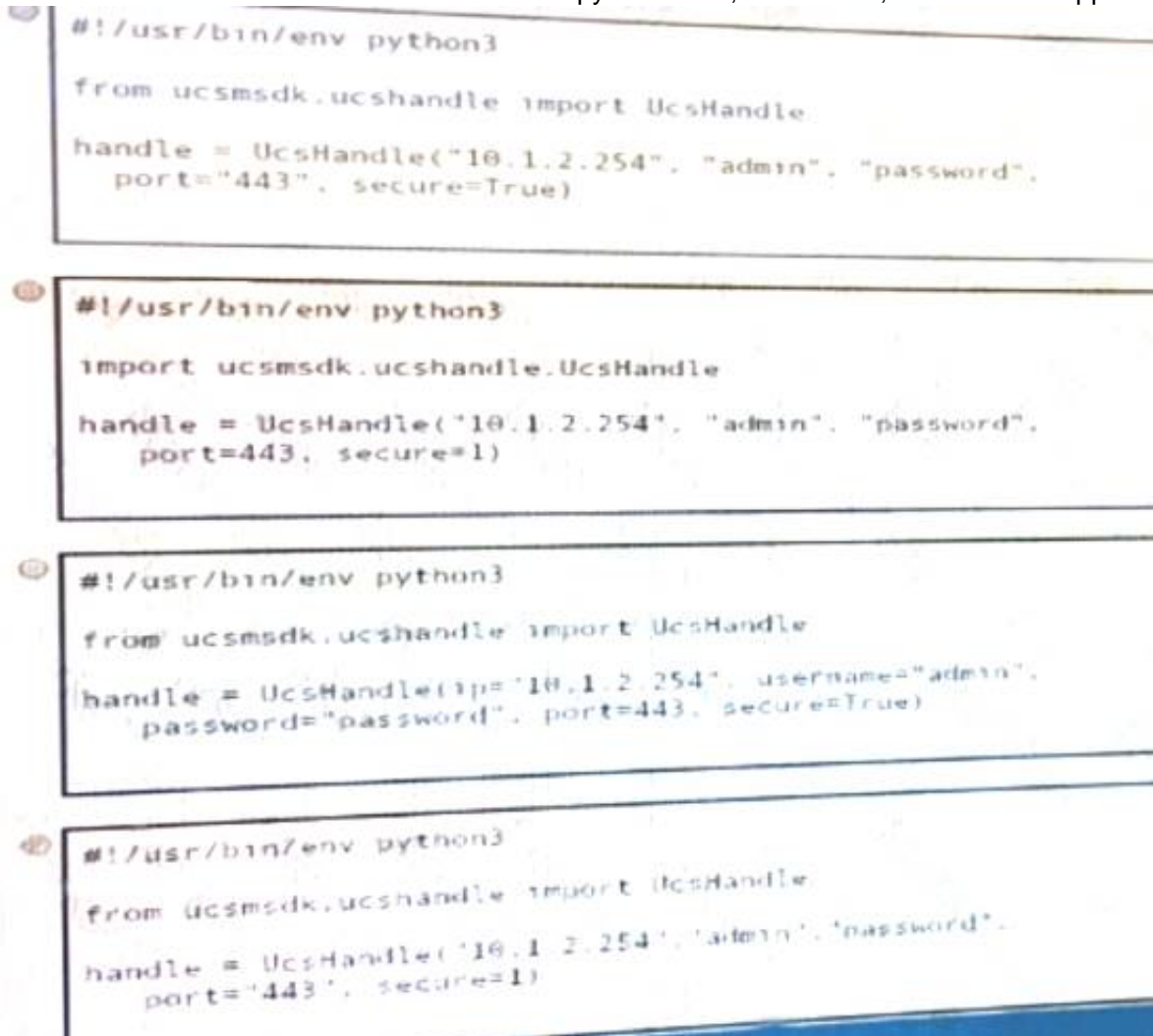
Bases: ucsm sdk.ucssession.UcsSession

[\[source\]](#)

UcsHandle class is the user interface point for any Ucs related communication.

- Parameters:**
- **ip** (*str*) – The IP or Hostname of the UCS Server
 - **username** (*str*) – The username as configured on the UCS Server
 - **password** (*str*) – The password as configured on the UCS Server
 - **port** (*int or None*) – The port number to be used during connection
 - **secure** (*bool or None*) – True for secure connection, otherwise False
 - **proxy** (*str*) – The proxy object to be used to connect

Given the API documentation for the UCS SDK python class, UcsHandle, which code snippet creates a handle instance?



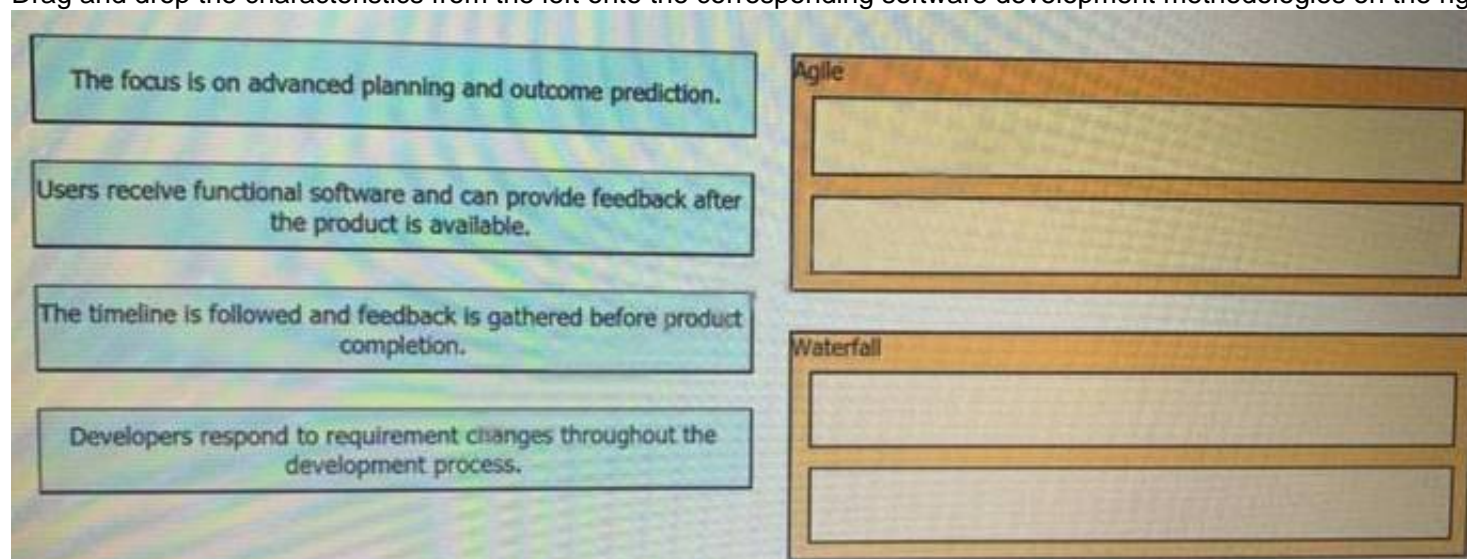
- A. Option A
 B. Option B
 C. Option C
 D. Option D

Answer: C

NEW QUESTION 130

- (Exam Topic 1)

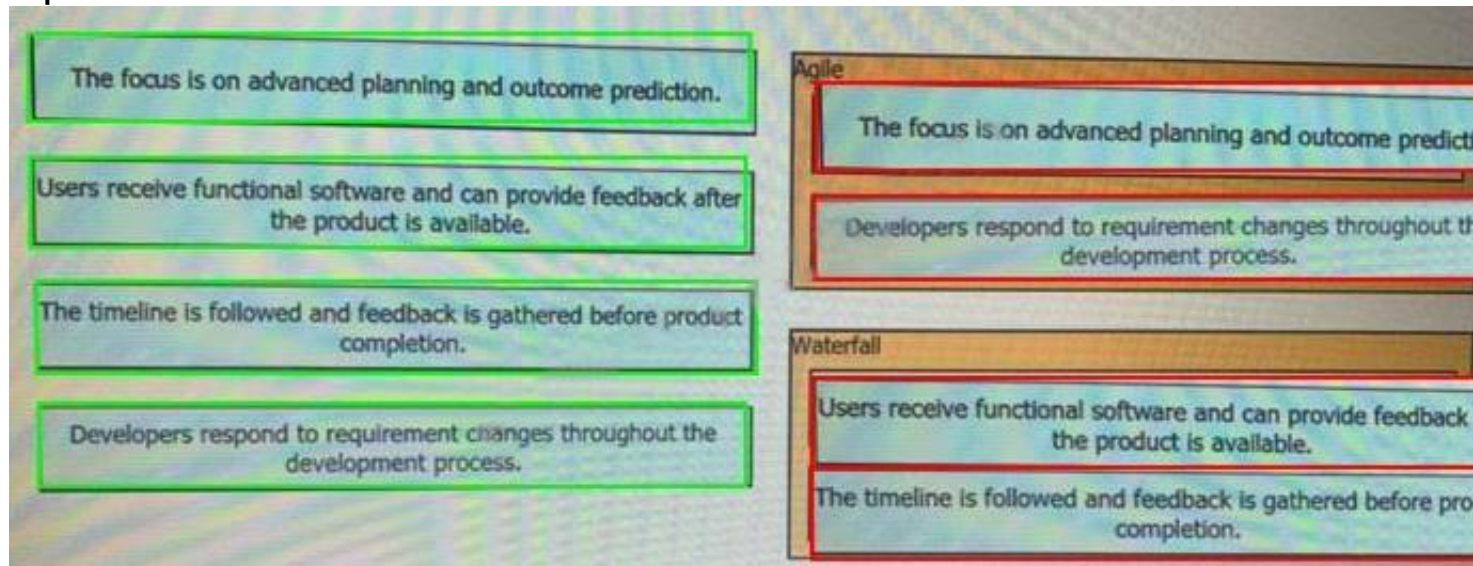
Drag and drop the characteristics from the left onto the corresponding software development methodologies on the right?



- A. Mastered
 B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 135

- (Exam Topic 1)

Which API is used to obtain data voicemail ports?

- A. Finesse gadgets
- B. Cisco Unified Communications manager
- C. Webex devices
- D. Webex teams

Answer: B

Explanation:

Cisco Unified Communications Manager (CUCM) provides API access to data management, call management, and voicemail integration. Source: Cisco DevNet Fundamental Course: <https://developer.cisco.com/certification/fundamentals/>

NEW QUESTION 139

- (Exam Topic 1)

What is used in Layer 2 switches to direct packet transmission to the intended recipient?

- A. spanning tree
- B. IPv4 address
- C. IPv6 address
- D. MAC address

Answer: D

NEW QUESTION 143

- (Exam Topic 1)

What are two benefit of managing network configuration via APIs? (Choose two.)

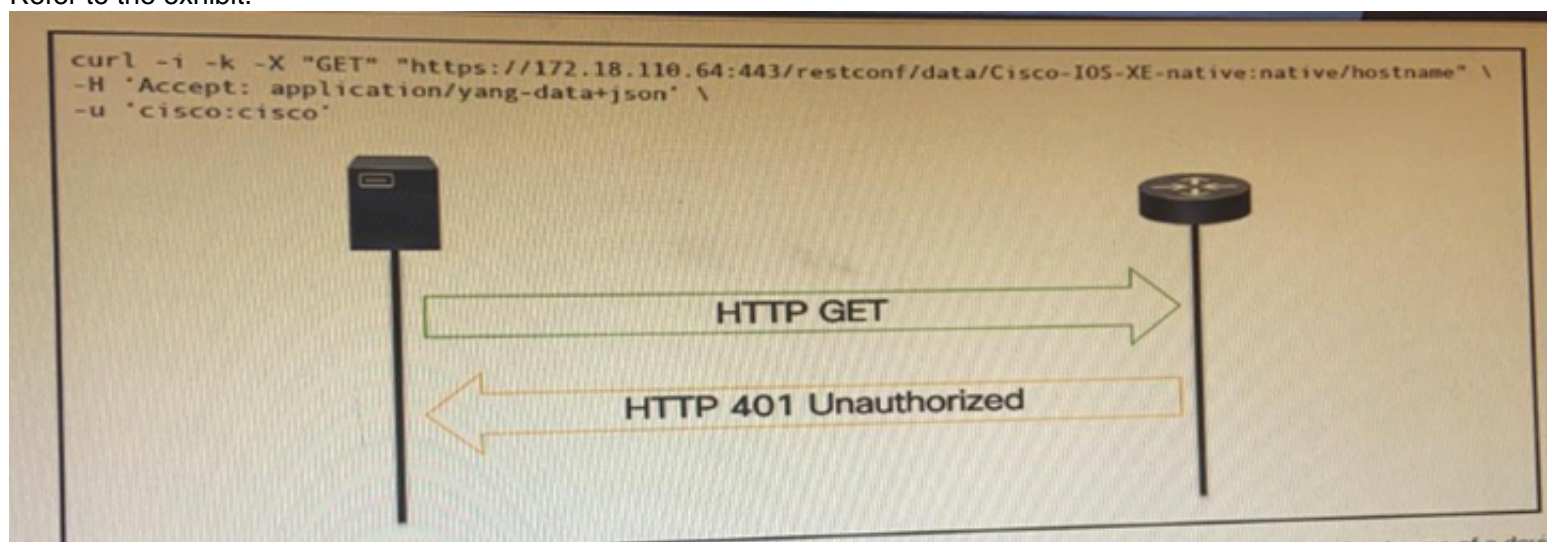
- A. configuration on devices becomes less complex
- B. more security due to locking out manual device configuration
- C. increased scalability and consistency of network changes
- D. eliminates the need of legacy management protocols like SNMP
- E. reduction in network changes performed manually

Answer: CE

NEW QUESTION 146

- (Exam Topic 1)

Refer to the exhibit.



An administrator attempts to perform a GET using the Cisco IOS XE RESTCONF API to return the hostname of a device. The sequence diagram illustrated the HTTP message observed. Which change to the API request resolves the issue?

- A. Add Content-Type HTTP header with 'application/yang-data+json' using -H 'Content-Type: application/yang-data+json'.
- B. Use -u cisco: cisco instead of -u 'cisco: cisco'.
- C. Change the request method from -X "GET" to- X' POST".
- D. Remove the -H 'Accept: application/yang-data+json' HTTP header because it is not required.

Answer: B

NEW QUESTION 147

- (Exam Topic 1)
Refer to the exhibit.

```
module ex-ethernet {
  namespace "http://example.com/Ethernet";
  prefix "eth";
  import ietf-interfaces {
    prefix if;
  }
  augment "/if:interfaces/if:interface" {
    when "if:type = 'ethernetCsmacd'";
    container ethernet {
      must "../if:location" {
        description
          "An Ethernet interface must specify the physical location of the ethernet hardware.";
      }
      choice transmission-params {
        case auto {
          leaf auto-negotiate {
            type empty;
          }
        }
        case manual {
          leaf duplex {
            type enumeration {
              enum "half";
              enum "full";
            }
          }
          leaf speed {
            type enumeration {
              enum "10Mb";
              enum "100Mb";
              enum "1Gb";
              enum "10Gb";
            }
          }
        }
      }
    }
  } // other ethernet specific params...
}
```

What is represented in this YANG module?

- A. interface management
- B. topology
- C. BGP
- D. OpenFlow

Answer: A

NEW QUESTION 152

- (Exam Topic 1)
Drag and drop the functionalities from the left onto correct networking devices on the right.

ports are different broadcast domain by default	Firewall
ports can be in the same broadcast domain	Load Balancer
uses traffic inspection to make routing decisions	Router
blocks networks traffic by default	Switch

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

1 – D, 2 – C, 3 – A, 4 – B

Reference: <https://geek-university.com/ccna/broadcast-domain-explained/>

NEW QUESTION 153

- (Exam Topic 1)

Which action does the Git command git merge allow the development to perform?

- A. Combine multiple sequence of commits into one unified history.
- B. Push changes to the remote repository
- C. Switch between branches
- D. Create, list, rename, and delete branches

Answer: A

Explanation:

Reference: <https://www.atlassian.com/git/tutorials/using-branches/git-merge>

NEW QUESTION 157

- (Exam Topic 1)

In which situation would an edge computing solution be used?

- A. where low latency is needed
- B. where high CPU throughput is needed
- C. where fast memory is needed
- D. where high disk space is needed

Answer: A

NEW QUESTION 161

- (Exam Topic 1)

What are two characteristics of Bare Metal environments that are related to application deployment? (Choose two.)

- A. Provide the hypervisor to host virtual servers
- B. Specifically designed for container-based workloads.
- C. Provides workloads with access to hardware features
- D. Suitable for legacy application that do not support virtualization
- E. Not compatible with other cloud services such as PaaS or SaaS offerings.

Answer: CD

NEW QUESTION 165

- (Exam Topic 1)

Which service provides a directory lookup for IP addresses and host names?

- A. DNS
- B. DHCP
- C. SNMP
- D. NAT

Answer: A

NEW QUESTION 166

- (Exam Topic 1)

Refer to the exhibit.

List the clients that have used this network in the timespan

HTTP REQUEST

GET /networks/ {networkId}/clients

PARAMETERS

t0

The beginning of the timespan for the data. The maximum lookback period is 31 days from today.

timespan

The timespan for which the information will be fetched. If specifying timespan, do not specify parameter t0. The value must be in seconds and be less than or equal to 31 days. The default is 1 day.

perPage

The number of entries per page returned. Acceptable range is 3 – 1000. Default is 10.

startingAfter

A token used by the server to indicate the start of the page. Often this is a timestamp or an ID but it is not limited to those. This parameter should not be defined by client applications. The link for the first, last, prev, or next page in the HTTP Link header should define it.

endingBefore

A token used by the server to indicate the end of the page. Often this is a timestamp or an ID but it is not limited to those. This parameter should not be defined by client applications. The link for the first, last, prev, or next page in the HTTP Link header should define it.

```
base_url = "https://api.meraki.com/api/v0"
network_id = "L_12345678910"
api_key = "1098hadpfsiapsf8ahf8ohp"
requests.<item 1> (
    <item 2> + "<item 3>/" + <item 4>, "<item 5>",
    headers = {
        "X-Cisco-Meraki-API-Key": <item 6> ,
        "Content-Type": "<item 7>"
    },
    <item 8>={"<item 9>":<item 10>})
```

Drag and drop the code from the left code from the left onto the item number on the right to complete the Meraki code to obtain a list of client which have used this network.

params	<item 1>
networks	<item 2>
timespan	<item 3>
get	<item 4>
432000	<item 5>
base_url	<item 6>
application/json	<item 7>
network_id	<item 8>
clients	<item 9>
api_key	<item 10>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

1 - d, 2 - f, 3 - b, 4 - h, 5 - i, 6 – j, 7 - g, 8 - a, 9 - c, 10 - e

NEW QUESTION 171

- (Exam Topic 1)

Before which process is code review performed when version control is used?

- A. committing code
- B. branching code
- C. merge of code
- D. checkout of code

Answer: C

NEW QUESTION 175

- (Exam Topic 1)

Drag and drop the HTTP methods from the left onto their generally accepted corresponding create, read, update, and delete operations on the right.

DELETE	Create
GET	Read
PATCH	Update
POST	Update
PUT	Delete

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

1 – D, 2 – B, 3 – C, 4 – E, 5 – A

Reference:

<https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/application-policy-infrastructure-controller-e>
OR

Answer : Post
Get Put Delete

NEW QUESTION 177

- (Exam Topic 1)

A Company is looking for cloud deployment which will use the on-premise infrastructure, is user self-service, and easy to scale. Which cloud solution should be selected for these requirements?

- A. multi
- B. public
- C. private
- D. hybrid

Answer: C

NEW QUESTION 179

- (Exam Topic 1)

A developer is writing an application that a REST API and the application requires a valid from the API which element of the response is used in the conditional check?

- A. URL
- B. Status code
- C. Link
- D. Body
- E. Headers

Answer: B

NEW QUESTION 182

- (Exam Topic 1)

Refer to the exhibit.

```
docker run -p 3000:5000 f877cbf2ff33
```

A process on the host wants to access the service running inside this Docker container. Which port is used to make a connection?

- A. only outbound connections between 3000 and 5000 are possible
- B. port 3000
- C. any port between 3000 and 5000
- D. port 5000

Answer: B

NEW QUESTION 187

- (Exam Topic 1)

Which response status code is used by a RESTful interface to indicate successful execution of a request?

- A. 200
- B. 404
- C. 405
- D. 500

Answer: A

NEW QUESTION 188

- (Exam Topic 1)

What is an example of a network interface hardware address?

- A. domain name
- B. IP address
- C. workstation name
- D. MAC address

Answer: D

NEW QUESTION 190

- (Exam Topic 1)

Drag and Drop the GIT commands from the left onto the right that add modified local files to a remote repository. Not all options are used

git push	Git command one
git add .	Git command two
git checkout -b "new branch"	Git command three
git commit -m "this is my edit"	
git pull	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

git add .

git commit -m "this is my edit" git push

NEW QUESTION 192

- (Exam Topic 1)

Which two query types does a client make to a DNS server? (Choose Two)

- A. AAAA
- B. ACK
- C. DISCOVER
- D. Inverse
- E. PTR

Answer: AE

NEW QUESTION 196

- (Exam Topic 1)

Which principle is a value from the manifesto for Agile software development?

- A. adhering to a plan over responding to requirements
- B. detailed documentation over working software
- C. processes and tools over teams and inter actions
- D. customer collaboration over contract negotiation

Answer: D

Explanation:

Reference: https://www.cisco.com/c/dam/global/en_hk/solutions/collaboration/files/agile_product_development.pdf

NEW QUESTION 197

- (Exam Topic 1)

Refer to the exhibit.

```
#!/bin/bash
read ndir
while [ -d "$ndir" ]
do
cd $ndir
done
mkdir $ndir
```

What is the action of the Bash script that is shown?

- A. The script waits until input is entered
- B. If the directory exists, the script goes into it until there is no directory with the same name, then it creates a new directory.
- C. The script goes into the directory called "\$ndir" and makes a new directory called "\$ndir"
- D. The script waits until input is entered, then it goes into the directory entered and creates a new directory with the same name.
- E. For all directories in the current folder
- F. The script goes into directory and makes a new directory.

Answer: A

NEW QUESTION 202

- (Exam Topic 1)

Which two concepts describe test-driven development? (Choose two.)

- A. It enables code refactoring.
- B. Write a test before writing code.
- C. Implementation is driven by incremental testing of release candidates.
- D. User acceptance testers develop the test requirements.
- E. Tests are created when code is ready for release.

Answer: BC

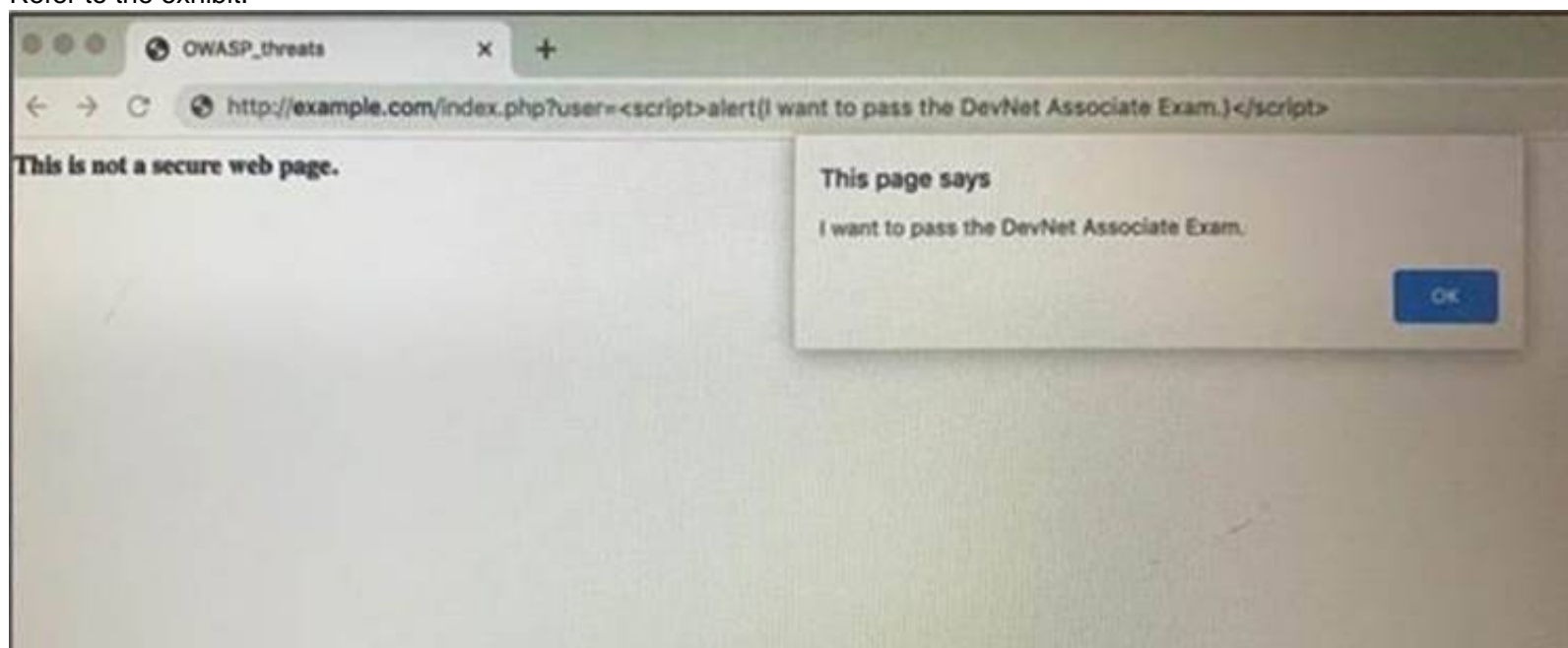
Explanation:

https://www.tutorialspoint.com/software_testing_dictionary/release_candidate.htm

NEW QUESTION 207

- (Exam Topic 1)

Refer to the exhibit.



Which OWASP threat does this example demonstrate?

- A. broken access control
- B. SQL injection
- C. man-in-the-middle
- D. cross-site scripting

Answer: D

NEW QUESTION 210

- (Exam Topic 1)

Which two statements about JSON and XML are true? (Choose two.)

- A. JSON objects are collection of key value pair.
- B. The syntax of JSON contains tags, elements, and attributes.
- C. JSON arrays are an unordered set of key value pairs.
- D. The syntax of XML contains tags, elements, and attributes.
- E. XML objects are collections of key-value pairs.

Answer: AD

NEW QUESTION 211

- (Exam Topic 1)

Which two items are Cisco DevNet resources? (Choose two.)

- A. TAC support
- B. Bitbucket
- C. Sandbox
- D. Software research
- E. API Documentation

Answer: CE

Explanation:

Reference: <https://developer.cisco.com/>

NEW QUESTION 214

- (Exam Topic 1)

Which device is used to transport traffic from one broadcast domain to another broadcast domain?

- A. load balancer
- B. layer 2 switch
- C. router
- D. proxy server

Answer: C

NEW QUESTION 215

- (Exam Topic 1)

The project is migrated to a new codebase, the “old_project” directory must be deleted. The directory has multiple read-only files, and it must be deleted recursively without prompting for confirmation. Which bash command must be used?

- A. `rm -rf old_project`
- B. `rm -r old_project`
- C. `rmdir -p old_project`
- D. `rmdir old_project`

Answer: A

NEW QUESTION 216

- (Exam Topic 1)

what is an advantage of a version control system?

- A. forces the practice of trunk-based development
- B. prevents over-writing code or configuration files
- C. facilitates resolving conflicts when merging code
- D. ensures that unit tests are written

Answer: C

NEW QUESTION 219

- (Exam Topic 1)

What operation is performed with YANG model-driven programmability in NX-OS?

- A. configure a device with native and OpenConfig-based models
- B. send CLI commands to a device and retrieve output in JSON format
- C. run Linux commands natively on the device

D. bootstrap a device that has a factory-default configuration

Answer: A

Explanation:

Reference:

<https://www.cisco.com/c/en/us/products/collateral/switches/nexus-9000-series-switches/white-paper-c11-74151>

NEW QUESTION 220

- (Exam Topic 1)

Which model-driven programmability protocol does Cisco IOS XE Software support?

- A. CORBA
- B. SSH
- C. gNMI
- D. SOAP

Answer: C

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1610/b_1610_programmability_cg/gnmi_

NEW QUESTION 222

- (Exam Topic 1)

What is a tenet of test-driven development?

- A. write documentation for tests
- B. write tests after adding new blocks of code
- C. write and run tests before writing new code
- D. run tests after writing new code

Answer: C

NEW QUESTION 227

- (Exam Topic 1)

What are two advantages of YANG-based approaches for infrastructure automation? (Choose two.)

- A. directly maps to JavaScript
- B. multi-platform vendor abstraction
- C. designed to reflect networking concepts
- D. compiles to executables that run on network devices
- E. command line driven interface

Answer: BC

NEW QUESTION 229

- (Exam Topic 1)

Refer to the exhibit.

HTTP REQUEST

POST /organizations/ {organizationId}/networks

PARAMETERS

name

The name of the new network.

type

The type of the new network. Valid types are wireless, appliance, switch, systemsManager, camera, cellularGateway, or a space-separated list of those for a combined network.

tags

A space-separated list of tags to be applied to the network.

timeZone

The timezone of the network. For a list of allowed timezones, please see the 'TZ' column in the table in [this article](#).

copyFromNetworkId

The ID of the network to copy configuration from. Other provided parameters will override the copied configuration, except type which must match this network's type exactly.

disableMyMerakiCom

Disables the local device status pages ([my.meraki.com](#), [ap.meraki.com](#), [switch.meraki.com](#), [wired.meraki.com](#)). Optional (defaults to false).

disableRemoteStatusPage

Disables access to the device status page ([http://\[device's LAN IP\]](#)). Optional. Can only be set if disableMyMerakiCom is set to false.

```
base_url = https://api.meraki.com/api/v0
org_id = 123456789
api_key = 1098hadpfsiapsf8ahf8ohp
network_name = "New Network"
requests.<item 1> (
    <item 2> + "/" + <item 3> + "/" + org_id + "/" + <item 4> + "/",
    headers = {
        "X-Cisco-Meraki-API-Key": "<item 5>",
        "Content-Type": "<item 6>"
    },
    <item 7>=json.dumps ({ "name": <item 8>,
                          "type": "wireless switch"
                          })
)
```

Drag and drop the code from the left onto the item numbers on the right to complete the Meraki python script shown in the exhibit.

base_url	<item 1>
network_name	<item 2>
data	<item 3>
post	<item 4>
application/json	<item 5>
networks	<item 6>
api_key	<item 7>
organizations	<item 8>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:
1 – D, 2 – A, 3 – H, 4 – F, 5 – G, 6 – E, 7 – C, 8 – B

NEW QUESTION 230
- (Exam Topic 1)
Which status code is used by a REST API to indicate that the submitted payload is incorrect?

- A. A.-400B.403C.405D.429

Answer: A

Explanation:
Reference:
<https://community.cisco.com/t5/application-centric/apic-rest-api-produces-inconsistent-response/td-p/2758230>

NEW QUESTION 231
- (Exam Topic 1)
A function my_func() returns True when it executes normally. Which python snippet tests my_func()?

☒

```
def test_func(self):  
    self.assertTrue(my_func())
```

☐

```
def test_func(self):  
    self.assertRaises(my_func())
```

☐

```
def test_func(self):  
    self.assertEqual(my_func(), '{true}')
```

☐

```
def test_func(self):  
    self.assertFalse(my_func())
```

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

Answer: B

NEW QUESTION 236

- (Exam Topic 1)

Which two types of NAT are used in a network? (Choose two.)

- A. Static NAT
- B. Normal NAT
- C. Multicast NAT
- D. Dynamic NAT
- E. Router NAT

Answer: AD

Explanation:

Reference: <https://www.dummies.com/programming/networking/cisco/types-of-network-address-translation/>

NEW QUESTION 241

- (Exam Topic 1)

In python, which expression checks whether the script returns a success status code when the Requests library is used?

- A. `response.status_code == requests.ok`
- B. `response.status_code == requests.codes.ok`
- C. `response.code == requests.codes.ok`
- D. `response.status_code != requests.codes.ok`

Answer: B

Explanation:

Reference: <https://realpython.com/python-requests/>

NEW QUESTION 244

- (Exam Topic 1)

Fill in the blanks to complete the Bash script in which each file in a directory is renamed to its SHA256 hash?

```
TARGET_DIR=/usr/local/certs
for f in [ ]; do
    [ ] ` openssl sha -sha256 -r < $f | cut -f1 -d' '
done
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Check below the answer exact.

```
TARGET_DIR=/usr/local/certs
for f in `ls [ ] $TARGET_DIR`; do
    mv [ ] $f ` openssl sha -sha256 -r < $f | cut -f1 -d' '
done
```

NEW QUESTION 246

- (Exam Topic 1)

Which statement about authentication a RESTCONF API session with a router that runs Cisco IOS XE software is true?

- A. OAuth must be used.
- B. A token must be retrieved and the associated string must be embedded in the X-Auth-Token header.
- C. Basic authentication must be used.
- D. No authentication is required.

Answer: C

NEW QUESTION 249

- (Exam Topic 1)

Drag and drop the requests from the left into the correct order on the right to create and check the path trace between two devices using Cisco DNA center API.

GET /api/v1/flow-analysis/{flowAnalysisId}	Step 1
POST /api/v1/flow-analysis	Step 2
POST /api/system/v1/auth/token	Step 3
GET /api/v1/network-device/ and choose IP of source and destination devices	Step 4

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

1 – C, 2 – D, 3 – B, 4 - A

NEW QUESTION 252

- (Exam Topic 1)

Which task is performed because the test-driven development approach is being used?

- A. testing existing software before developing new code
B. refactoring code that is covered by existing tests
C. writing code without committing any coding violations
D. creating test scenarios based on continuous development

Answer: B

Explanation:

"The idea is that you build a test case first, before any software has been created or modified" but "testing existing software before developing new code" is the idea or goal, not the task five steps of TDD:

- Write a test
- Test fails
- Write some code
- Test passes
- Refactor

NEW QUESTION 256

- (Exam Topic 1)

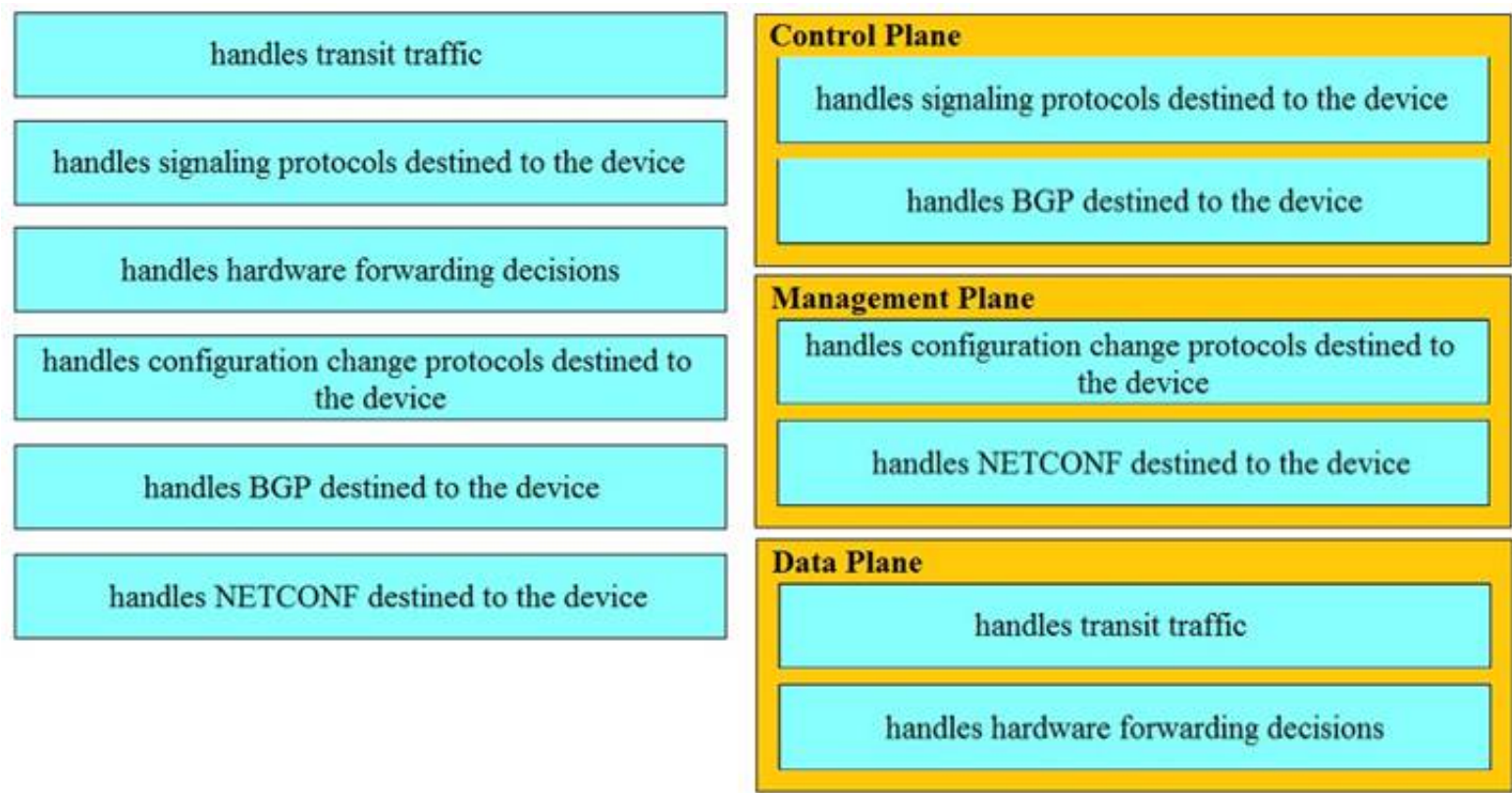
Drag and drop the function on the left onto the type of plane that handles the function on the right.

handles transit traffic	Control Plane <div></div> <div></div>
handles signaling protocols destined to the device	
handles hardware forwarding decisions	Management Plane <div></div> <div></div>
handles configuration change protocols destined to the device	
handles BGP destined to the device	
handles NETCONF destined to the device	Data Plane <div></div> <div></div>

- A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 260

- (Exam Topic 1)
What are the two purposes for using a VLAN in a network? (Choose two)

- A. It is used to create the routing table.
- B. It creates a collection of MAC addresses.
- C. It is used for VM network traffic.
- D. It segments a network.
- E. It creates a broadcast domain.

Answer: DE

NEW QUESTION 261

- (Exam Topic 1)
Drag and drop the HTTP status codes from the left onto the correct descriptions on the right.

400	Unauthorized
401	Not Found
403	Bad Request
404	Forbidden

- A. Mastered
- B. Not Mastered

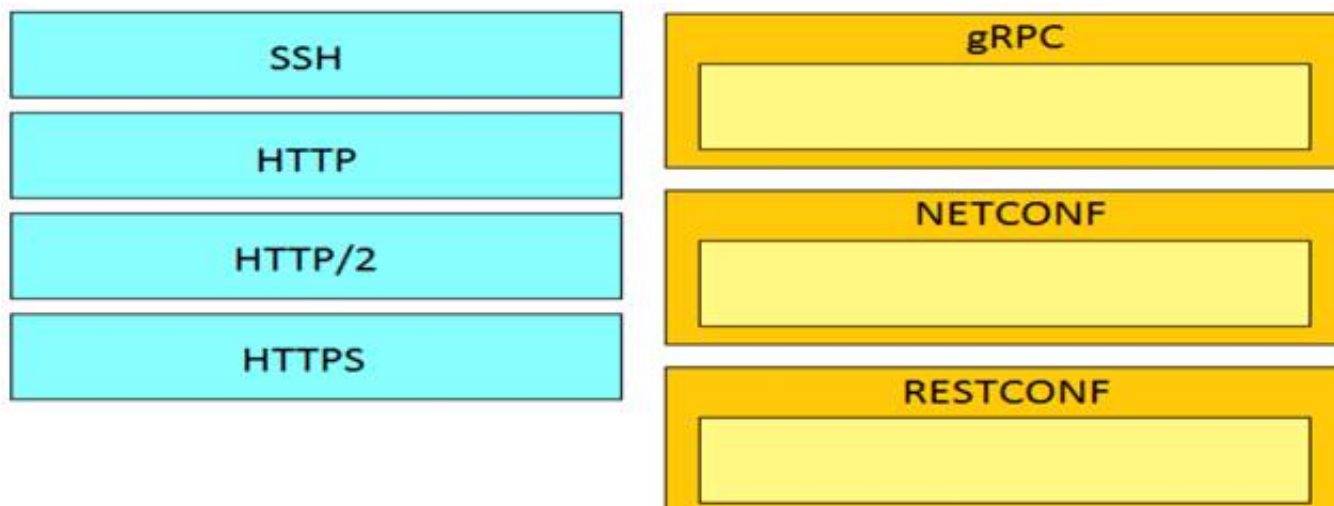
Answer: A

Explanation:

1 – B, 2 – D, 3 – A, 4 – C
Reference:
<https://www.cisco.com/c/en/us/support/docs/security/web-security-appliance/118217-troubleshoot-wsa-00.html>

NEW QUESTION 263

- (Exam Topic 1)
Drag and drop the network automation interfaces from the left onto the transport protocols that they support on the right. (Not all Options are used)



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Grpc == http/2 , netconfig == ssh , restconfig == https

NEW QUESTION 264

- (Exam Topic 1)

Which product provides network controller-level management features?

- A. Cisco DNA Center
- B. Cisco NX-OS
- C. Cisco UCS Manager
- D. Cisco ISE

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/products/cloud-systems-management/index.html>

NEW QUESTION 268

- (Exam Topic 1)

Refer to the exhibit.

```
<books>
  <science>
    <biology>10.00</biology>
    <geology>9.00</geology>
    <chemistry>8.00</chemistry>
  </science>
  <math>
    <calculus>20.00</calculus>
    <algebra>12.00</algebra>
  </math>
</books>
```

Which JSON is equivalent to the XML –encoded data?

```
A. [ {
  "books": {
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  }
} ]

B. {
  "books": [
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  ]
}

C. {
  "books": [
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  ]
}

D. {
  "books": [
    "science", {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math", {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  ]
}
```

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

Answer: A

NEW QUESTION 271

- (Exam Topic 1)
Drag and drop the descriptions from the left onto correct application deployment models on the right.

provides a low-latency compute capability close to the data source

environment where you pay only for the resources that you consume

offers a self-service, elastic compute environment from a dedicated set of physical resources

provides an approach for overflow traffic to burst out to meet peak demands

shared compute platform that is offered over the Internet

Public Cloud

Private Cloud

Hybrid Cloud

Edge Computing

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:
1 – B, 2 – E, 3 – C, 4 – D, 5 – A

NEW QUESTION 272
- (Exam Topic 1)
Which platform is run directly using a hypervisor?

- A. bare metal systems
- B. containers
- C. virtual machines
- D. applications

Answer: C

NEW QUESTION 273
- (Exam Topic 1)
Fill in the blanks to complete the cURL command that invokes a RESTful API to retrieve a resource in JSON format using OAuth.

```
curl -X [ ] -H "[ ]: application/json" \
-H "[ ]: Bearer AbCdEf123456" https://localhost/api/myresource
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

```
curl -X GET [ ] -H "[ ]: application/json" \
-H "[ ]: Bearer AbCdEf123456" https://localhost/api/myresource
```

Reference: <https://webcache.googleusercontent.com/search?q=cache:Se6d2trvMsEJ:https://blogs.cisco.com/developer/secu>

NEW QUESTION 277
- (Exam Topic 1)
Refer to the exhibit.

A -

```
bash-3.2$ curl -H "Content-Type: application/json" -H "Authorization: Bearer Fj2zzykEa09lic9GK2j8LtE1HklH6oRHPQdw1Pat60i7ndtHHnWzL2b5PQmG14Kk_B9ei5ISAClY7-NarA-2n9H-tGgt-SxQ39iDejgcs" -i -d "{ \"roomId\": \"Y2geK53sjELknosrC7SwQ5ZGL99pHgiuScB7DfNvU8Xx4wDKLiPORcEkryAnM3QmK9LQZsPOG4\", \"text\": \"test2\" }" -X POST https://api.ciscopark.com/v1/messages
```

B -

C -

D -

```
HTTP/1.1 200 OK
Via: 1.1 linker
Transfer-Encoding: chunked
TrackingID: ROUTER_5E0FE283-63EB-01BB-00ED-806BF1BD00ED
Date: Sat, 01 Jan 2020 00:55:31 GMT
Server: Redacted
Content-Type: application/json; charset=UTF-8
Vary: Accept-Encoding
Strict-Transport-Security: max-age=63072000; includedSybDomains; preload
```

E -

F -

```
{\"id\":\"YCPjF3aVovyBYcbn7lSdesNkKcgN5tlExdc6dcnPtl4Va05NfCh9MG17j0tWXQLoIPuoJ73uu7JdoXq9\", \"roomId\":\"Y2geK53sjELknosrC7SwQ5ZGL99pHgiuScB7DfNvU8Xx4wDKLiPORcEkryAnM3QmK99LQZsPOG4\", \"roomType\":\"group\", \"text\":\"test2\", \"personId\":\"YcgYzL6Xgtyfw81XXwqfKf7whfj23KuqWt4kLWkbb3JwEJBlVMZOkIvyDdFoppb0einNj111FcMyy5wD\", \"personEmail\":\"user@webex.com\", \"created\":\"2020-01-01T00:55:32.492Z\"}
```

bash-3.2\$

Drag and drop the descriptors from the left onto the correct parts of the API request and response on the right.

Response Headers	A
HTTP Request	B
HTTP Response	C
Request Payload	D
Request Headers	E
Response Payload	F

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A – E, B – D, C – B, D – C, E – A, F – F

NEW QUESTION 278

- (Exam Topic 1)

A 401 HTTP response code is returned when calling a REST API. What is the error state identified by this response code?

- A. The server cannot process the request as it has detected an issue in the request syntax or body.
- B. The server accepted the request but the client is not authorized for this content.
- C. The request has not been accepted because it requires authentication.
- D. The server cannot find the requested resource because the path specified is incorrect.

Answer: C

Explanation:

Reference:

<https://blog.restcase.com/rest-api-error-codes-101/#:~:text=A%20401%20error%20response%20indicates,crede>

NEW QUESTION 282

- (Exam Topic 1)

Refer to the exhibit.

```
leaf IPPeer {
  type union {
    type inet:ipv4-address;
    type inet:ipv6-address;
  }
}
```

What is the value of the node defined by this YANG structure?

```
{
  "IPPeer": "10.1.1.1"
}

{
  "IPPeer": "10.1.1.1 2001:db::1"
}

{
  "IPPeer": [
    "10.1.1.1",
    "2001:db::1"
  ]
}

{
  "IPPeer": [
    "10.1.1.1"
  ]
}
```

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

Answer: D

Explanation:

<https://tools.ietf.org/html/rfc7950#section-9.12>

NEW QUESTION 283

- (Exam Topic 1)

On which port does NETCONF operate by default?

- A. 23
- B. 443
- C. 822
- D. 830

Answer: D

NEW QUESTION 287

- (Exam Topic 1)

A developer is reviewing a code that was written by a colleague. It runs fine, but there are many lines of code to do a seemingly simple task repeatedly. Which action organizes the code?

- A. Refactor the code by removing any unnecessary tests
- B. Using functions, rewrite any pieces of code that are repeated
- C. Reverse engineer and rewrite the code logic
- D. Modify the code to use loops

Answer: B

NEW QUESTION 288

- (Exam Topic 1)

What is the purpose of the Cisco VIRL software tool?

- A. To verify configurations against compliance standards
- B. To simulate and model networks
- C. To automate API workflows
- D. To test performance of an application

Answer: B

Explanation:

Reference: <https://www.speaknetworks.com/cisco-virl-better-gns3/>

NEW QUESTION 293

- (Exam Topic 1)

Which REST architectural constraint indicates that no client context should be stored on the server between requests?

- A. stateless
- B. uniform interface
- C. cacheable
- D. client-server

Answer: A

Explanation:

Reference: <https://developer.cisco.com/docs/nx-os/#!representational-state-transfer-rest>

NEW QUESTION 294

- (Exam Topic 1)

Which two use cases are supported by Meraki APIs? (Choose two.)

- A. Retrieve live streams from a Meraki Camera.
- B. Build a custom Captive Portal for Mobile Apps.
- C. Configure network devices via the Dashboard API.
- D. Build location-aware apps from Wi-Fi and LoRaWAN devices.
- E. Deploy applications onto the devices.

Answer: BC

NEW QUESTION 295

- (Exam Topic 1)

Which two descriptions can be given to an application that is interacting with a webhook? (Choose two.)

- A. Processor
- B. Codec
- C. Listener
- D. Receiver
- E. Transaction monitor

Answer: CD

NEW QUESTION 297

- (Exam Topic 1)

What are two roles of an artifact repository in a CI/CD pipeline? (Choose two.)

- A. is required for CI/CD pipelines executed on a public cloud infrastructure
- B. is required for managing open source software
- C. stores files needed and generated during the build process
- D. allows for comparing and merging changes in the source code
- E. provides traceability, search, and management of binary files

Answer: CE

NEW QUESTION 302

- (Exam Topic 1)

Package updates from a local server fail to download. However, the same updates work when a much slower external repository is used. Why are local updates failing?

- A. The update utility is trying to use a proxy to access the internal resource.
- B. The Internet connection is too slow.
- C. The Internet is down at the moment, which causes the local server to not be able to respond.
- D. The server is running out of disk space.

Answer: A

NEW QUESTION 305

- (Exam Topic 1)

Refer to the exhibit.

```
def get_result()

    url = "https://sandboxdnac.cisco.com/dna/system/api/v1/auth/token"

    resp = requests.post(url, auth=HTTPBasicAuth(DNAC_USER, DNAC_PASSWORD))

    result = resp.json()['Token']

    return result
```

What does the python function do?

- A. It returns DNAC user and password.
- B. It returns HTTP Basic Authentication.
- C. It returns an authorization token.
- D. It reads a token from a local JSON file and posts the token to the DNAC URL.

Answer: C

NEW QUESTION 310

- (Exam Topic 1)

Refer to the exhibit.

```
$ pyang -f tree Cisco-IOS-XE-native.yang
module: Cisco-IOS-XE-native
  +--rw native
    +--rw logging
      +--rw monitor|
        +--rw severity?  logging-level-type

$ curl --insecure -v -X PATCH \
  "https://ios-xe-mgmt-latest.cisco.com:9443/restconf/data/Cisco-IOS-XE-native:native" \
  -H 'Authorization: Basic ZGV2ZWxvcGVyOkMxc2NvMTIzNDU=' -H 'Accept: application/yang-data+json' \
  -H 'Content-Type: application/yang-data+json' \
  -d '{ "Cisco-IOS-XE-native:native" : { "logging" : { "monitor" : { "severity" : "alerts" }} } }'
> ...
< ...
< HTTP/1.1 204 No Content
```

The definition of the YANG module and a RESTCONF query sent to a Cisco Ioc XE device is shown. Which statement is correct if the RESTCONF interface responds with a 204 status code?

- A. The query failed at retrieving the logging seventy level.
- B. The query failed to set the logging seventy level due to an invalid path.
- C. The query retrieved the logging seventy level.
- D. The query updated the logging seventy level or created it if not present on the device.

Answer: D

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1611/b_1611_programmability_cg/restco

NEW QUESTION 314

- (Exam Topic 1)

Refer to the exhibit.


```
json_string = """
{
    "researcher": {
        "name": "Ford Perfect",
        "species": "Betelgeusian",
        "relatives": [
            {
                "name": "Zaphod Beeblebrox",
                "species": "Betelgeusian"
            }
        ]
    }
}
"""

my_json = json.loads(json_string)
```

Which python data structure does my_json contain?

- A. List
- B. Json
- C. Map
- D. Dict

Answer: D

Explanation:

Reference:

<https://stackoverflow.com/questions/34764979/loading-python-string-with-u-as-json?noredirect=1&lq=1>

NEW QUESTION 318

- (Exam Topic 1)

Which line is an example of the start of a chunk from a unified diff?

- A. @@ -90,88 +20191008T1349@@
- B. @@ -20191007T1200 +88,90 @@
- C. @@ -20191007T1200 +20191008T1349@@
- D. @@ -88,10 +88,6 @@

Answer: D

Explanation:

Reference:

<https://unix.stackexchange.com/questions/252927/what-do-the-numbers-in-the-line-mean-in-output-of-diff>

NEW QUESTION 323

- (Exam Topic 1)

A REST API service requires authentication based on the username and password. The user "john" has the password "384279060" and the Base64 encoding of those credentials is "am9objowMTIzNDU2Nzg=". Which method completes an authentication request?

- A. The header must include: Authorization: Bearer am9objowMTIzNDU2Nzg=
- B. The payload must include: Authorization: Bearer am9objowMTIzNDU2Nzg=
- C. The payload must include: Authorization: Basic am9objowMTIzNDU2Nzg=
- D. The header must include: Authorization: Basic am9objowMTIzNDU2Nzg=

Answer: D

NEW QUESTION 325

- (Exam Topic 1)

Users cannot access a webserver and after the traffic is captured, the capture tool shows an ICMP packet that reports "time exceeded in-transit". What is the cause of this webserver access issue?

- A. A router along the path is misrouting the packets in a wrong direction.
- B. A router along the path has the wrong time.
- C. The server is too far away and the packets require too much time to reach it
- D. The server is too loaded and the connection could not be handled in time

Answer: A

NEW QUESTION 327

- (Exam Topic 1)

Refer to the exhibit.

```

---
- hosts: switch2960cx
  gather_facts: no

  tasks:
    - ios_l2_interface:
      name: GigabitEthernet0/1
      state: unconfigured

    - ios_l2_interface:
      name: GigabitEthernet0/1
      mode: trunk
      native_vlan: 1
      trunk_allowed_vlans: 6-8
      state: present

    - ios_vlan:
      vlan_id: 6
      name: guest-vlan
      interfaces:
        - GigabitEthernet0/2
        - GigabitEthernet0/3

    - ios_vlan:
      vlan_id: 7
      name: corporate-vlan
      interfaces:
        - GigabitEthernet0/4

    - ios_vlan:
      vlan_id: 8
      name: iot-vlan
      interfaces:
        - GigabitEthernet0/5

```

Which two statements describe the configuration of the Ansible script if run? (Choose two.)

- A. Traffic on port 0/2 and 0/3 is connected to port 0/6.
- B. Traffic from ports 0/2 to 0/5 can flow on port 0/1 due to the trunk.
- C. Traffic can flow between ports 0/2 to 0/5 due to the trunk on port 0/1.
- D. GigabitEthernet0/2 and GigabitEthernet0/3 are access ports for VLAN 6.
- E. GigabitEthernet0/1 is left unconfigured.

Answer: BD

NEW QUESTION 330

- (Exam Topic 1)

A company has written a script that creates a log bundle from the Cisco DNA Center every day. The script runs without error and the bundles are produced. However, when the script is run during business hours, report poor voice quality of phone calls. What explains this behavior?

- A. The application is running in the Voice VLAN and causes delays and jitter in the subnet.
- B. The speed and duplex settings in Cisco DNA Center are set incorrectly, which causes the transfer to be too slow.
- C. The script is written in a low-level programming language where there is no memory safety.
- D. This causes a buffer overflow and disruption on the network.
- E. Generating the logs causes the CPU on the network controller to spike, which causes delays in forwarding the voice IP packets.

Answer: D

NEW QUESTION 333

- (Exam Topic 3)

Drag and drop the code from the bottom onto the box where the code is missing to authenticate with the Cisco DNA Center REST API by using basic authentication. Then generate a token for later use. Not all options are used.

```
import requests
from requests.auth import HTTPBasicAuth

BASE_URL = 'https://sandboxdnac2.cisco.com'
AUTH_URL = '/dna/system/api/v1/'
USERNAME = 'admin'
PASSWORD = 'qwer1234!'

response = requests. (BASE_URL + AUTH_URL,
    auth=HTTPBasicAuth( , ))
token = response.json()['Token']
print(token)
```

auth/basic	/auth/token	post	get
USERNAME	Token	PASSWORD	

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

```
import requests
from requests.auth import HTTPBasicAuth

BASE_URL = 'https://sandboxdnac2.cisco.com'
AUTH_URL = '/dna/system/api/v1/'
USERNAME = 'admin'
PASSWORD = 'qwer1234!'

response = requests. (BASE_URL + AUTH_URL,
    auth=HTTPBasicAuth( , ))
token = response.json()['Token']
print(token)
```

auth/basic	/auth/token	post	get
USERNAME	Token	PASSWORD	

NEW QUESTION 336

- (Exam Topic 3)

What is a characteristic of the Cisco Finesse platform?

- A. Applications allow services to be invoked on a network triggered event.
 B. The platform provides a ready-to-go platform for HD video and audio conferencing.
 C. Applications are added to the platform from the desktop remotely.
 D. The platform includes an enterprise-class IM engine.

Answer: A

Explanation:

A characteristic of the Cisco Finesse platform is that applications allow services to be invoked on a network triggered event. Cisco Finesse is a next-generation agent and supervisor desktop designed to provide a rich, browser-based experience for contact center agents and supervisors. It offers a flexible, open development platform that allows developers to build custom applications and integrations to meet the specific needs of their contact center. One of the key features of Cisco Finesse is the ability to trigger actions based on events within the contact center network, such as an incoming call or a change in the status of a customer's account. This allows developers to build applications that can react to real-time events and provide relevant information or services to agents as they handle customer interactions.

NEW QUESTION 341

- (Exam Topic 3)

When a Cisco IOS XE networking device is configured by using RESTCONF, what is the default data encoding method?

- A. application/yaml-data+json
- B. application/yang-data+json
- C. application/xml-data+json
- D. application/json-data+xml

Answer: D

NEW QUESTION 342

- (Exam Topic 3)

A developer must test the performance and reliability of an application. After functional and load tests are run, the application crashes due to traffic spikes from users. Which type of API constraint must be implemented to maintain reliability?

- A. rate limiting
- B. pagination
- C. payload limits
- D. filtering

Answer: A

NEW QUESTION 347

- (Exam Topic 3)

What is a characteristic of RPC APIs compared to REST APIs?

- A. Authentication is done over provisions for the service caller and vice versa for RPC API, and REST API uses HTTP headers for authentication.
- B. All communications between the client and server must be stateless for RPC API, and REST API is stateful.
- C. The architecture model for RPC API is resource-focused, and REST API is procedure-focused.
- D. The data payload must be in JSON format for RPC API, and REST API allows JSON and XML formats.

Answer: A

NEW QUESTION 351

- (Exam Topic 3)

An engineer must make changes on a network device through the management platform API. The engineer prepares a script to send the request and analyze the response, check headers, and read the body according to information inside response headers. Drag and drop the HTTP header values from the left onto the elements of an HTTP response on the right.

16974	cache-control
no-store, must-revalidate	content-length
timeout=5, max=100	keep-alive
application/json; charset=UTF-8	content-type

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

16974	no-store, must-revalidate
no-store, must-revalidate	16974
timeout=5, max=100	timeout=5, max=100
application/json;charset=UTF-8	application/json;charset=UTF-8

NEW QUESTION 352

- (Exam Topic 3)

What is the meaning of the HTTP status code 204?

- A. request completed; new resource created
- B. server successfully processed request; no content returned
- C. standard response for successful requests
- D. invalid query parameters

Answer: B

NEW QUESTION 355

- (Exam Topic 3)

A file in a local Git repository has been updated and issued the `git add .` command. The `git diff` command has been run to compare the changes to the previous commit, but nothing shows. Which action identifies the problem?

- A. Run the `git add .` command again in the correct subdirectory to ensure changes added to the staging area.
- B. Run the `git commit` command before the differences are compared to receive the end state of the code.
- C. Run the `git status` command to see the differences between current and previous code review stages.
- D. Run the `git diff --staged` command to compare the code added to the staging area.

Answer: D

NEW QUESTION 360

- (Exam Topic 3)

```
user@host1:~/tmp$ cat Dockerfile
# Dockerfile to install traceroute
FROM ubuntu
MAINTAINER User One (userone@cisco.com)
RUN apt-get update && apt-get install traceroute
```

Refer to the exhibit. Drag and drop the Dockerfile contents from the left onto the functions on the right that create a container image to run traceroute to track network path to specific targets. Not all options are used.

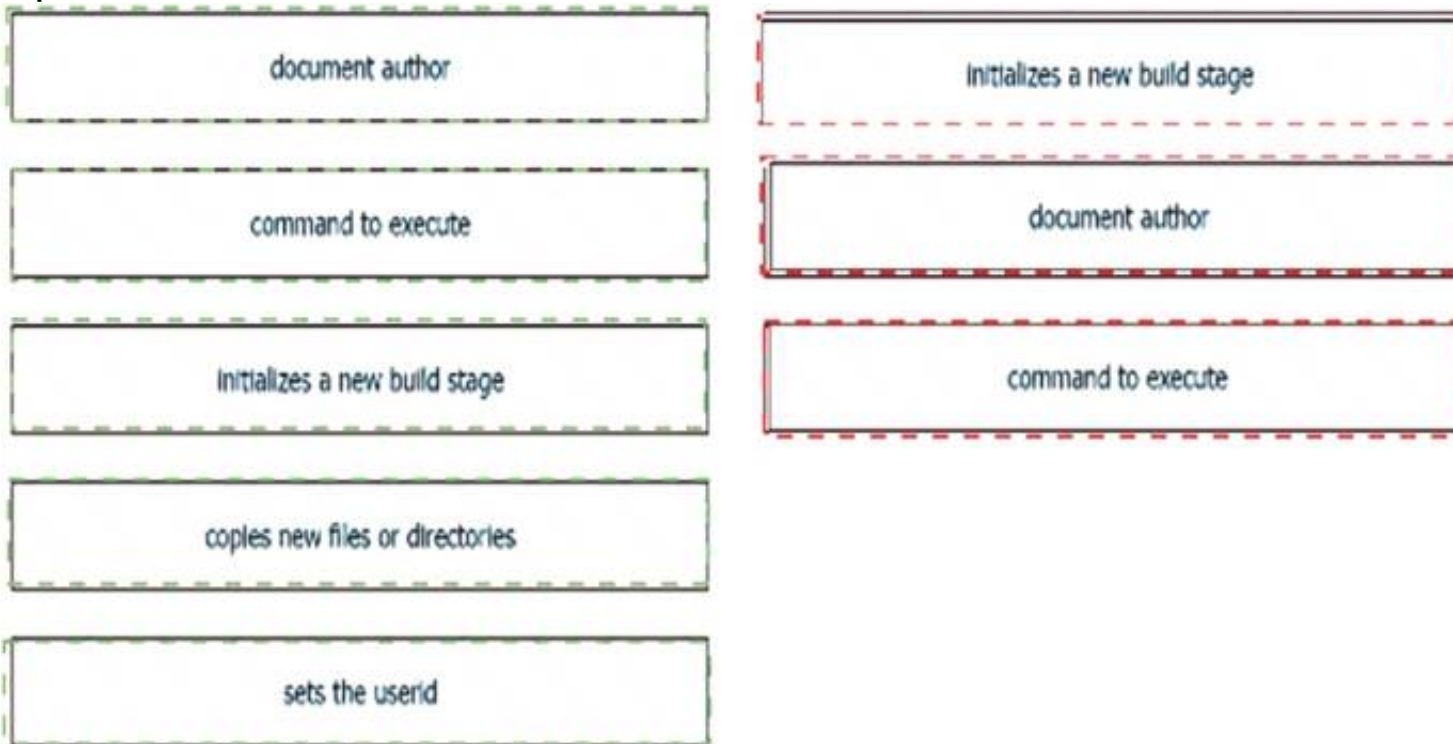
document author	FROM ubuntu
command to execute	MAINTAINER User One (userone@cisco.com)
Initializes a new build stage	RUN apt-get update && apt-get install traceroute
copies new files or directories	
sets the userid	

A. Mastered

B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 361

- (Exam Topic 3)

What is a capability of the AXL API?

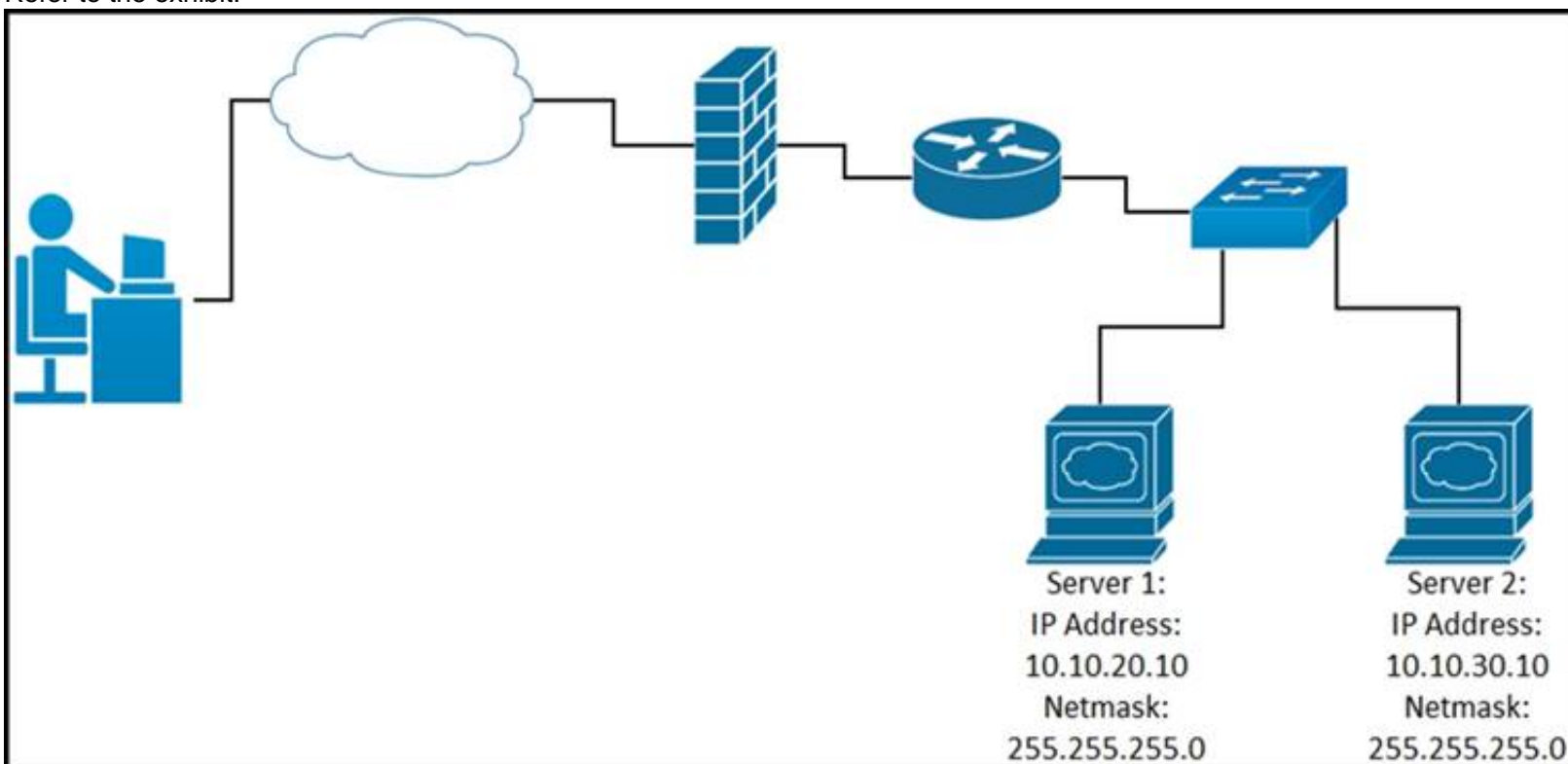
- A. It signs a user in to a phone that is configured for extension mobility.
- B. It pulls logs for the Cisco Tomcat service.
- C. It authenticates users who exist in Cisco Unified Communications Manager.
- D. It provides support for HTTP and HTTPS communications.

Answer: C

NEW QUESTION 365

- (Exam Topic 3)

Refer to the exhibit.



While developing a Cisco Webex bot, an application reaches the public IP address of the firewall, but traffic is forwarded to the IP address of server 1 instead of the IP address of server 2. What causes this issue?

- A. The proxy server that rewrites traffic is misconfigured.
- B. The router is sending the traffic to server 1 instead of server 2.
- C. The switch is forwarding IP traffic to the wrong VLAN.
- D. NAT is misconfigured on the firewall.

Answer: D

NEW QUESTION 368

- (Exam Topic 3)

A developer has experienced security issues with a previously developed application. The API offered by that application is open and without any constraints. During a recent attack, the application was overloaded with API requests. To address this issue, an API constraint is implemented to protect the application from

future attacks or any sudden throttling. Which API constraint must the application developer implement in this situation?

- A. pagination
- B. rate limiting
- C. filtering
- D. payload limiting

Answer: B

NEW QUESTION 371

- (Exam Topic 3)
Refer to the exhibit.

```
1 import requests
2
3 url = "https://api.meraki.com/api/v0/organizations/{{organizationId}}/insight/
* monitoredMediaServers"
4
5 payload = {
6     "name": "Sample VoIP Provider",
7     "address": "123.123.123.1"
8 }
9 headers = {
10     'Accept': '*/*',
11     'Content-Type': 'application/json'
12 }
13
14 response = requests.request("POST", url, headers=headers, data=payload)
15
16 print(response.text.encode('utf8'))
```

Which workflow does the script automate?

- A. retrieves a media server that is being monitored
- B. updates a media server that is being monitored
- C. adds a media server to be monitored
- D. deletes a media server that is being monitored

Answer: C

NEW QUESTION 376

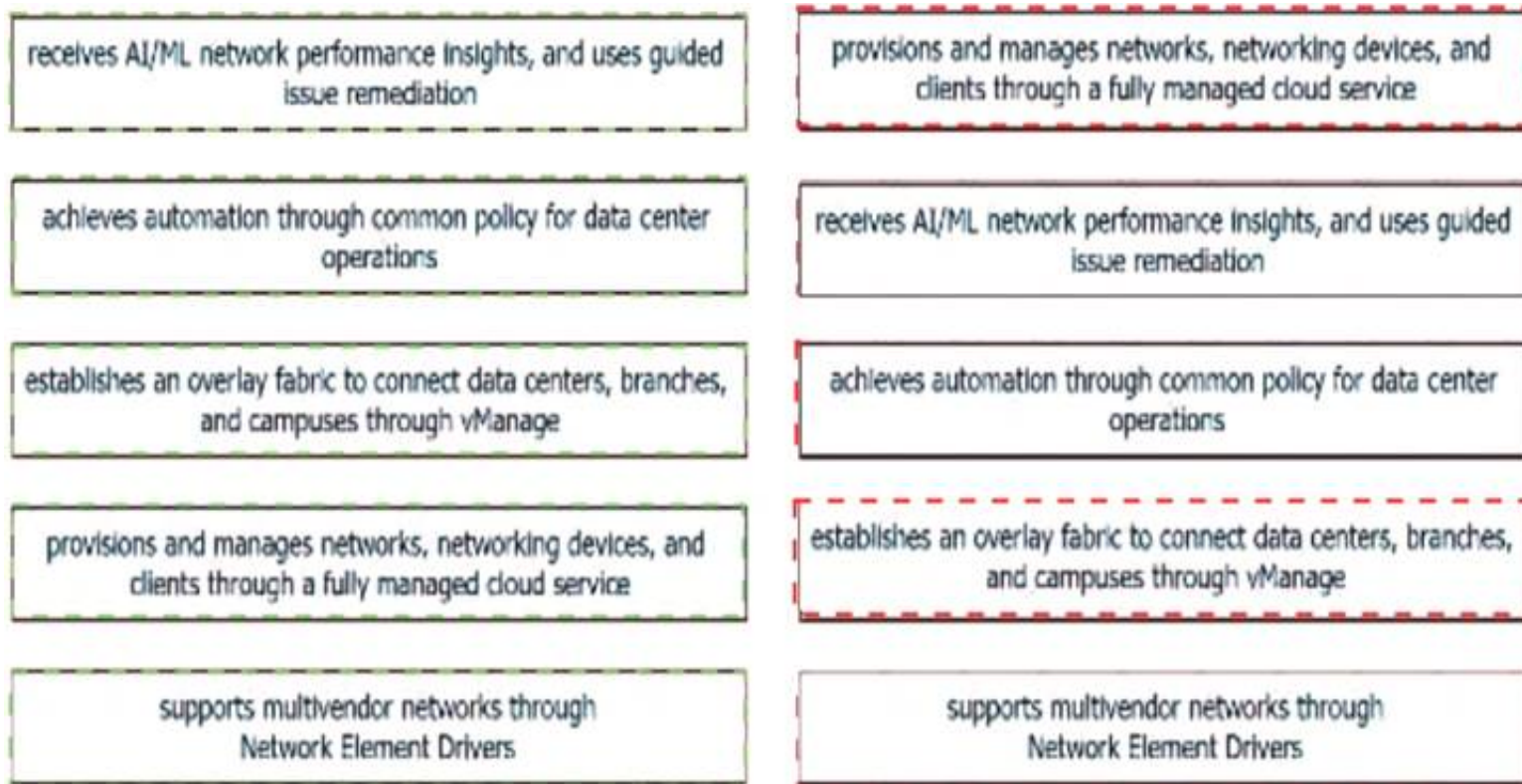
- (Exam Topic 3)
Drag and drop the capabilities from the left onto the Cisco Network Management Platforms that support the capabilities on the right.

receives AI/ML network performance insights, and uses guided issue remediation	Meraki
achieves automation through common policy for data center operations	Cisco DNA Center
establishes an overlay fabric to connect data centers, branches, and campuses through vManage	ACI
provisions and manages networks, networking devices, and clients through a fully managed cloud service	Cisco SD-WAN
supports multivendor networks through Network Element Drivers	NSO

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 378

- (Exam Topic 3)

What is the purpose of running tests before writing code in test-driven development?

- A. to find unexpected failures in the tests
- B. to demonstrate that the tests fail for expected reasons
- C. to ensure that the tests pass
- D. to provide proof of the work carried out

Answer: D

NEW QUESTION 383

- (Exam Topic 3)

A team of developers is responsible for a network orchestration application in the company. The responsibilities also include: developing and improving the application in a continuous manner deployment of the application and management of CI/CD frameworks monitoring the usage and problems and managing the performance improvements Which principle best describes this DevOps practice?

- A. responsible for IT operations
- B. automation of processes
- C. end-to-end responsibility
- D. quality assurance checks

Answer: C

NEW QUESTION 387

- (Exam Topic 3)

A company deploys an application via containers in its local data center. As soon as the application goes into production, it starts to crash at specific hours of the day. After investigation, it is concluded that the crashes are due to too many users accessing the application simultaneously. The spikes must be addressed and allow for future growth without discarding the investment already made. Which deployment model must be used?

- A. hybrid cloud
- B. edge
- C. private cloud
- D. public cloud

Answer: A

NEW QUESTION 392

- (Exam Topic 3)

```
$ find /home/user/backup -mtime +30 -type f -print
$ find /home/user/backup -mtime +30 -type f -delete
```

Refer to the exhibit. An engineer is managing the network of an enterprise. The network is using a distributed deployment model. The enterprise uses database to store logs. The current policy requires logs to be stored if changes are made to the infrastructure in any of the devices on the data centers. Which workflow is being automated by the Bash script?

- A. returning backup files that are older than 30 days
- B. deleting backup files that are older than 30 days
- C. configuring the directory to delete files automatically
- D. automating deletion of all backup files every 30 days

Answer: B

NEW QUESTION 394

- (Exam Topic 3)

Drag and drop the functions from the left onto the networking devices on the right.

forwards by default	load balancer
distributes unicast traffic over devices	switch
uses traffic inspection to make forwarding decisions	firewall
distributes multicast traffic over devices	router

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

forwards by default	forwards by default
distributes unicast traffic over devices	distributes unicast traffic over devices
uses traffic inspection to make forwarding decisions	uses traffic inspection to make forwarding decisions
distributes multicast traffic over devices	distributes multicast traffic over devices

NEW QUESTION 399

- (Exam Topic 3)

```
import requests, json
url = https://sandboxdnac.cisco.com:443/dna/intent/api/v1/3daa70bdcd5b
headers = {
    'x-auth-token': 'eyJhbGc ... yJbN8',
    'Content-Type': 'application/json',
}
payload = {
    "settings": {
        "dhcpServer": ["172.30.200.5"],
        "dnsServer": {
            "domainName": "devnet.local",
            "primaryIpAddress": "172.30.200.6",
            "secondaryIpAddress": "172.30.200.7",
        },
        "syslogServer": {"ipAddresses": ["10.255.0.1"], "configureDnacIP": True}
    }
}
response = requests.request('POST', url, headers=headers, data=payload)
print(response.status_code)
```

Refer to the exhibit. A developer writes a script to create a new network by using the Cisco DNA Center API. After running the script for the first time, the developer observes that HTTP code 404 is printed to the console. Which action resolves the problem?

- A. The x-auth-token value must be changed to a valid token.
- B. The API URL must be changed with a valid URL.
- C. The requested payload must be fixed to include missing parts.
- D. Internal errors on the code of API server must be fixed.

Answer: B

NEW QUESTION 402

- (Exam Topic 3)

Which IP service synchronizes the time across devices?

- A. DNS
- B. NTP
- C. SNMP
- D. NAT

Answer: B

NEW QUESTION 406

- (Exam Topic 3)

Which command reverses the last commit without changing the index file or the working tree position?

- A. git revert HEAD
- B. git reset --hard HEAD~3
- C. git reset --soft HEAD^
- D. git revert

Answer: C

NEW QUESTION 409

- (Exam Topic 3)

Drag and drop the code from the bottom onto the box where the code is missing to complete the error path scenario. Not all options are used.

```
import pytest
class Player:
    def __init__(self, name):
        self.name = name
        [ ]
    def set_rating(self, rating):
        if rating or rating is int(0):
            [ ]:
                raise ValueError('rating is invalid', rating)
            else:
                [ ]
        else:
            return False
@pytest.fixture
def player():
    player = Player('User One')
    yield player
    del player
@pytest.mark.usefixtures('player')
class TestErrorPathSetRating:
    def test_add_higher_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(101)
    def test_add_invalid_rating(self, player):
        with pytest.raises(ValueError):
            [ ]
    def test_add_lower_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(-1)
```

player.set_rating(0)	if rating != 0:
player.set_rating(85)	if rating or rating is int(0):
if rating < 1 or rating > 100:	self.rating = rating
self.rating = None	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

```
import pytest
class Player:
    def __init__(self, name):
        self.name = name
        self.rating = None
    def set_rating(self, rating):
        if rating or rating is int(0):
            if rating < 1 or rating > 100:
                raise ValueError('rating is invalid', rating)
            else:
                if rating != 0:
                    return True
        else:
            return False
@pytest.fixture
def player():
    player = Player('User One')
    yield player
    del player
@pytest.mark.usefixtures('player')
class TestErrorPathSetRating:
    def test_add_higher_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(101)
    def test_add_invalid_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(0)
    def test_add_lower_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(-1)
```

player.set_rating(0)	if rating != 0:
player.set_rating(85)	if rating or rating is int(0):
if rating < 1 or rating > 100:	self.rating = rating
self.rating = None	

NEW QUESTION 413

- (Exam Topic 3)

Which network constraint causes the performance of the application to decrease as the number of users accessing the application increases?

- A. latency
- B. loss
- C. bandwidth
- D. jitter

Answer: C

NEW QUESTION 416

- (Exam Topic 3)

A developer is attempting to retrieve all the messages from a Cisco Webex space. The server responds by sending the first 1,000 messages. The developer must make additional requests to retrieve the rest of the messages. Which API constraint is described in this scenario?

- A. payload limiting
- B. throttling
- C. pagination
- D. rate limiting

Answer: C

Explanation:

<https://developer.atlassian.com/server/confluence/pagination-in-the-rest-api/>

NEW QUESTION 420

- (Exam Topic 3)

A developer creates a program in which an object maintains a list of classes based on the observer pattern. The classes are dependent on the object. Whenever the state of the object changes, it notifies the dependent classes directly through callbacks. Which advantage of the observer pattern offers minimum dependencies and maximum flexibility between dependent objects or classes?

- A. tight coupling
- B. cohesion
- C. mediation
- D. loose coupling

Answer: D

NEW QUESTION 423

- (Exam Topic 3)

What is a firehose webhook?

- A. It collects data from third-party cloud APIs for custom applications.
- B. It enables an application to receive real-time data from Cisco Webex.
- C. It enables data to flow from the Cisco Webex API to a user's application.
- D. It sends a notification of any event for commonly used resources.

Answer: D

NEW QUESTION 427

- (Exam Topic 3)

Which OWASP threat takes advantage of a web application that the user has already authenticated to execute an attack?

- A. phishing
- B. DoS
- C. brute force attack
- D. CSRF

Answer: D

Explanation:

Cross-Site Request Forgery (CSRF) is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated.

<https://owasp.org/www-community/attacks/csrf>

NEW QUESTION 428

- (Exam Topic 3)

Which solution reduces costs from MPLS, improves application performance, and simplifies operations?

- A. Cisco NSO
- B. Cisco SD-WAN
- C. Cisco ACI
- D. Cisco DNA Center

Answer: B

NEW QUESTION 430

- (Exam Topic 3)

/api/access/global/rules

API operations on global access rules.

GETPUTPATCHPOSTDELETE

Implementation Notes

Add a new global access rule.

Parameters

Parameter	Required	Description	Type	Data Type
body	true	Definition of the global access rule to be added.	body	ExtendedACE

Response

Response Content Typeapplication/json

Response ObjectExtendedACE

ExtendedACE Model

Field	Value	Description	Constraints
sourceAddress*	object	source address in the ace	None
destinationAddress*	object	destination address in the ace	None
kind*	string	The kind of this resource object.	None
dstSecurity	object	destination security group in the ace	None
dstSecurity. Value	string		None
active*	boolean	shows if the rule is active or inactive, default is active	None
destinationService*	object	destination service in the ace	None
permit*	boolean	shows if the action is permit or deny	None

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to complete the function that adds a new global access rule that denies traffic using the Cisco ASA REST API. Not all options are used.


```
import requests as req
def add_rule(token, asa IP, dest v4Address):
    data = {
        "destinationAddress": {
            "kind": "IPv4Address",
            "value": dest v4Address
        },
        "destinationService": {
            "kind": "NetworkProtocol",
            "value": "ip"
        },
        
        "active": True,
        "sourceAddress": {
            "kind": "AnyIPAddress",
            "value": "any4"
        }
    }
    objectRequestUrl='https://' + 
    res = req.request( 
                      json=data,verify=False)
    
    print("Success.")
else:
    print("Failed")
```

```
if res.status_code == 201:
if res.status_code == 203:
+ asa_IP + "/api/access/global/rules"
'POST', objectRequestUrl,
"permit": False,
+ asa_IP = "/access/global/rules"
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, email Description automatically generated

NEW QUESTION 433

- (Exam Topic 3)

```
1 URL: https://example.com/restconf/data/Cisco-IOS-XE-native:native/logging/monitor
2 Method: POST
3
4 Headers: {'Content-type': 'application/yang-data+json', 'Accept': 'application/yang-data+json,
* application/yang-data.errors+json'}
5
6 Body:
7
8 {
9     "severity": "alerts"
10 }
```

Refer to the exhibit. Which HTTP code is returned after the RESTCONF query is executed?

- A. 201
- B. 204
- C. 302
- D. 304

Answer: A

NEW QUESTION 435

- (Exam Topic 3)

What is a function of the default gateway in a network?

- A. to drop traffic that is destined to the default gateway
- B. to forward traffic to different subnets
- C. to forward traffic to the same subnet
- D. to drop traffic that is not destined to the default gateway

Answer: B

NEW QUESTION 439

- (Exam Topic 3)

A developer creates a new application, but the application must be tested before being released to a customer. When a mobile phone that uses 4G is used to access the application, the request fails. Why does the connection to the application fail?

- A. The application is hosted on premises and VPN connectivity is required
- B. The application must be added to the production server before testing.
- C. The application must be moved to the cloud before testing is possible.
- D. The application connectivity is limited to HTTPS protocol.

Answer: A

NEW QUESTION 441

- (Exam Topic 3)

Refer to the exhibit.

```
git clone git://git.kernel.org/.../git.git my.git
cd my.git
git branch -d -r origin/todo origin/html origin/man    (1)
git branch -D test                                     (2)
```

What does the command marked (2) do when it is run?

- A. It duplicates the test" branch.
- B. It deletes the "test" branch only if a new branch is created.
- C. It deletes the "test" branch.
- D. It does not delete the branch until it is merged.

Answer: C

NEW QUESTION 445

- (Exam Topic 3)

A development team is creating an application used for contactless payments. The application must: Be web-based Capture and process the credit card information for a purchase.

Which security action must the web application use to gather and process the private customer data?

- A. Enable RATs to monitor the web application remotely.
- B. Disable botnets to eliminate risks.
- C. Disable TLS to increase the connection speed.
- D. Enable the encryption of network traffic.

Answer: D

NEW QUESTION 449

- (Exam Topic 3)

Refer to the exhibit.

```
url = 'https://api.amp.cisco.com/v1/computers'
response = session.get (url)
response_json = response.json ()

for item in response_json ['data'] :
    print (item['connector_guid'], item['hostname'])

while 'next' in response_json['metadata'] ['links']:
    
    response = session.get (next_url)
    response_json = response.json()
    for item in response_json['data']:
        print(item['connector_guid'], item['hostname'])
```

An engineer sends the request to collect data over Cisco AMP for Endpoints API. The Engineer must list guide and hostname data for all computers, but the first request returns only 500 items out of 2,000. Then, the engineer adds the loop to collect all the data. What must be added to the script where the code is missing to complete the requests?

- A. `next_url = response_json ['metadata'] ['links'] ['next']`
- B. `next_url = response_json ['metadata'] ['next']`
- C. `next_url = response_json ['next']`
- D. `next_url = response_json ['metadata'] ['links']`

A. Option A

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

Answer: A

Explanation:

```
https://github.com/CiscoSecurity/amp-03-pagination/blob/master/01_paginate.py while 'next' in response_json['metadata']['links']:
next_url = response_json['metadata']['links']['next'] response = session.get(next_url)
response_json = response.json()
for computer in response_json['data']: print(computer['connector_guid'], computer['hostname'])
```

NEW QUESTION 453

- (Exam Topic 3)

Which tool provides a testing environment to run tests on network devices and perform network automation scenarios?

- A. Visual Studio Code
- B. Cisco VIRL
- C. pyATS
- D. Cisco Packet Tracer

Answer: B

NEW QUESTION 457

- (Exam Topic 3)

What are two benefits of using classes over functions when writing applications? (Choose two.)

- A. improved readability
- B. increased compatibility
- C. variable reusability
- D. increased performance
- E. code organization

Answer: AC

NEW QUESTION 461

- (Exam Topic 3)

```
import requests
from requests.auth import HTTPBasicAuth

user= "user"
password= "PASSWORD"

token=requests.post('https://<DNAC ADRESS>/dna/system/api/v1/auth/token',
)
```

Refer to the exhibit. A developer must use a token to collect data from Cisco DNA Center API and prepares a Python script to send requests. Which line of code needs to be placed on the snippet where the code is missing to obtain a token from the Cisco DNA Center API?

- A. token=BasicAuth('user','password'))
- B. auth=BasicAuth('user','password'))
- C. auth=HTTPBasicAuth(user,password))
- D. token=HTTPBasicAuth(user,password))

Answer: C

NEW QUESTION 463

- (Exam Topic 3)

Object Lookup

Use the `MoDirectory.lookupByDn` to look up an object within the MIT object tree by its distinguished name (DN). This example looks for an object called 'uni':

```
uniMo = moDir.lookupByDn('uni')
```

A successful lookup operation returns a reference to the object that has the specified DN.

You can also look up an object by class. This example returns a list of all objects of the class 'polUni':

```
uniMo = moDir.lookupByClass('polUni')
```

You can add a filter to a lookup to find specific objects. This example returns an object of class 'fvTenant' whose name is 'Tenant1':

```
tenant1Mo = moDir.lookupByClass("fvTenant", propFilter='and(eq(fvTenant.name, "Tenant1"))')
```

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to add a subnet to each bridge domain in the Ten1 tenant. Not all options are used.

```
from cobra.model import fv
from cobra.mit.request import ClassQuery, DnQuery
import cobra.mit.access
import cobra.mit.session

tenname = "Ten1"
ls = cobra.mit.session.LoginSession(
    'https://10.100.1.200', "admin", "Lab123!3")

aci = cobra.mit.access.MoDirectory(ls)
aci.login()
c = cobra.mit.request.ConfigRequest()

qry1 =  (f'uni/tn-{tenname}')
fvTenant = aci.query(qry1)[0]

qry2 =  ("fvBD")
qry2.propFilter = f'and(wcard(fvBD.dn, "{fvTenant.dn}") )'
fvBDs = aci.query(qry2)

i=0
for fvBD in fvBDs:
    fvsubnet = cobra.model.fv.Subnet(  , ip=f'10.114.{i}.1/24')
    c.addMo(fvBD)
    aci.  (c)
    i+=
```

 fvBD

 fvTenant

 ClassQuery

 bdname

 DnQuery

 ClassName

 commit

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:


```
from cobra.model import fv
from cobra.mit.request import ClassQuery, DnQuery
import cobra.mit.access
import cobra.mit.session

tenname = "Ten1"
ls = cobra.mit.session.LoginSession(
    'https://10.100.1.200', "admin", "Lab123!3")

aci = cobra.mit.access.MoDirectory(ls)
aci.login()
c = cobra.mit.request.ConfigRequest()

qry1 = DnQuery (f'uni/tn-{tenname}')
fvTenant = aci.query(qry1)[0]

qry2 = ClassQuery ("fvBD")
qry2.propFilter = f'and(wcard(fvBD.dn,"{fvTenant.dn}"))'
fvBDs = aci.query(qry2)

i=0
for fvBD in fvBDs:
    fvsubnet = cobra.model.fv.Subnet( fvBD , ip=f'10.114.{i}.1/24')
    c.addMo(fvBD)
    aci.commit (c)
    i+=1
```

fvBD

fvTenant

ClassQuery

bdname

DnQuery

ClassName

commit

NEW QUESTION 464

- (Exam Topic 2)

Which Cisco product provides malware and content filtering through DNS?

- A. Cisco ASA Firepower module
- B. Cisco AMP
- C. Cisco ISE
- D. Cisco Umbrella

Answer: D

NEW QUESTION 465

- (Exam Topic 2)

What is a benefit of using functions in the code for the development process?

- A. better user experience in the end product
- B. improves code performance
- C. easier to compile the code
- D. faster code development

Answer: D

Explanation:

<https://www.techwalla.com/articles/the-advantages-disadvantages-of-using-functions-procedures-in-computer-p>

NEW QUESTION 467

- (Exam Topic 2)

Which configuration management tool has an agentless capability?

- A. Chef
- B. Puppet
- C. Ansible
- D. CFEngine

Answer: C

NEW QUESTION 468

- (Exam Topic 2)

In test-driven development, what are two of the green bar patterns? (Choose two.)

- A. another test
- B. break
- C. triangulate
- D. starter test
- E. fake it

Answer: CE

Explanation:

<https://blog.baudson.de/blog/test-driven-development-green-bar-patterns>

NEW QUESTION 470

- (Exam Topic 2)

Refer to the exhibit.

API Documentation:

Integrations are how you request permission to invoke the Webex REST API on behalf of another Webex Teams user. To do this in a secure way the API supports the OAuth 2 standard which allows third-party integrations to get a temporary access token for authenticating API calls instead of asking users for their password.

Script:

```

01 import requests
02
03 base_url = "https://webexapis.com/v1"
04 header = {"Key": "Value"}
05
06 url = "{}/{}/".format(base_url, "/teams")
07 print(requests.get(url, headers=header).status_code)

```

A developer creates a Python script that queries Cisco Webex. When the script is executed, a 401 code is returned. After troubleshooting, the developer discovers that the service is missing privileges. Which change to the header in line 4 of the script results in the code 200?

A)

header = {"Authentication": "Bearer YOUR_TOKEN"}

B)

header = {"Authentication Bearer" : "YOUR_TOKEN"}

C)

header = {"Authorization" : "Bearer YOUR_TOKEN"}

D)

header = {"Authorization Bearer" : "YOUR_TOKEN"}

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

Answer: C

NEW QUESTION 474

- (Exam Topic 2)

What is a benefit of a model-driven approach for infrastructure automation?

- A. enforces the generation of all automation scripts through the modeling environment
- B. provides a small learning curve and helps system administrators with limited coding experience
- C. ensures that system administrators gain a good understanding of coding and expand their experience and capabilities
- D. enables a user to understand a declarative language to translate the model into an actionable script

Answer: A

NEW QUESTION 478

- (Exam Topic 3)

Developer is working on a new feature and made changes on a branch named 'branch-413667549a-new'. When merging the branch to production, conflicts occurred. Which Git command must the developer use to recreate the pre-merge state?

- A. git merge -no-edit
- B. git merge -commit
- C. git merge -revert
- D. git merge -abort

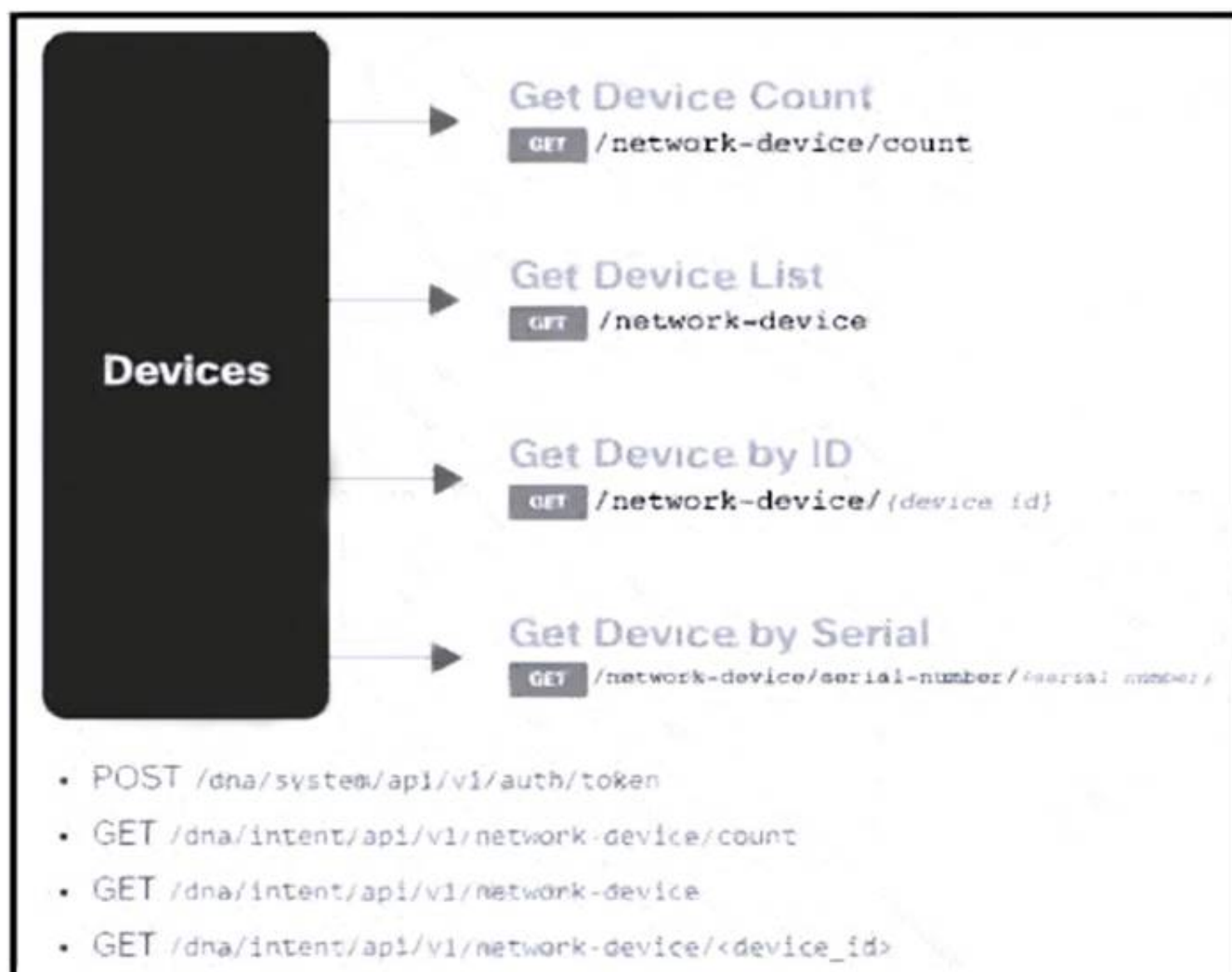
Answer: D

Explanation:

<https://www.git-tower.com/learn/git/ebook/en/command-line/advanced-topics/merge-conflicts>

NEW QUESTION 483

- (Exam Topic 3)



Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to construct a request that generates a security token and gets a list of network devices. Not all options are used.

```
import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': "application/json", 'x-auth-token': "" }
def dna_api_auth(host, username, password):
    url = "https://{}/api/system/v1/auth/token".format(host)
    response = .post(url, auth=HTTPBasicAuth(username, password),
    headers=headers, verify=False)
    return response.json()["Token"]

def list_dna_devices(token):
    url = "https://{}/api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = .json()
    for item in data['response']:
        print(item["hostname"])

token =  (host, username, password)
 (token)
```

response	reply	dna_api_auth	requests
json	list_dna_devices	list devices	

A. Mastered
 B. Not Mastered

Answer: A

Explanation:


```
import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': "application/json", 'x-auth-token': "" }
def dna_api_auth(host, username, password):
    url = "https://{}/api/system/v1/auth/token".format(host)
    response = requests.post(url, auth=HTTPBasicAuth(username, password),
                             headers=headers, verify=False)
    return response.json()["Token"]

def list_dna_devices(token):
    url = "https://{}/api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = response.json()
    for item in data['response']:
        print(item["hostname"])

token = dna_api_auth(host, username, password)
list_dna_devices(token)
```

response	reply	dna_api_auth	requests
json	list_dna_devices	list devices	

NEW QUESTION 485

- (Exam Topic 3)

```
import os
import requests

# username and password

API_USER_NAME = "devnetuser"
API_PASSWORD = os.environ['API_PASSWORD']

requests.get('https://api.cisco.com/end-service', auth=(API_USER_NAME, API_PASSWORD))
```

Refer to the exhibit. An engineer must authorize a REST API call. The API password is "Cisco123!". Which Bash command must be placed in the code to authorize the call?

- A. mkdir API_PASSWORD=Cisco123!
- B. set API_PASSWORD=Cisco123!
- C. cp API_PASSWORD=Cisco123!
- D. export API_PASSWORD=Cisco123!

Answer: D

NEW QUESTION 489

- (Exam Topic 3)

A developer pushes an application to production. The application receives a webhook over HTTPS without a secret. The webhook information contains credentials to service in cleartext. When the information is received, it is stored in the database with an SHA-256 hash. Credentials to the database are accessed at runtime through the use of a vault service. While troubleshooting, the developer sets the logging to debug to view the message from the webhook. What is the security issue in this scenario?

- A. Database credentials should be accessed by using environment variables defined at runtime.
- B. During the transport of webhook messages, the credentials could be unencrypted and leaked.
- C. During logging, debugging should be disabled for the webhook message.
- D. Hashing the credentials in the database is not secure enough; the credentials should be encrypted.

Answer: B

NEW QUESTION 494

- (Exam Topic 3)

Which Cisco platform is used to manage data center infrastructure through third-party tools and system integrations?

- A. Cisco DNA Center
- B. Cisco UCS Manager

- C. Cisco Intersight
- D. Cisco UCS Director

Answer: D

NEW QUESTION 495

- (Exam Topic 3)

Which function does a router provide to a network?

- A. broadcast domain segmentation
- B. unique host on a Layer 3 network
- C. unique hardware address for every node on a LAN
- D. broadcast domain extension

Answer: B

NEW QUESTION 500

- (Exam Topic 3)

A developer is working on a new feature in a branch named 'newfeat123456789' and the current working primary branch is named 'prim987654321'. The developer requires a merge commit during a fast forward merge for record-keeping purposes. Which Git command must be used?

- A. git merge --no-ff newfeat123456789
- B. git commit --no-ff newfeat123456789
- C. git add --commit-ff newfeat123456789
- D. git reset --commit-ff newfeat123456789

Answer: A

NEW QUESTION 503

- (Exam Topic 3)

```
FROM myImage
VOLUME ["/data"]
ENTRYPOINT ["/bin/sh"]
```

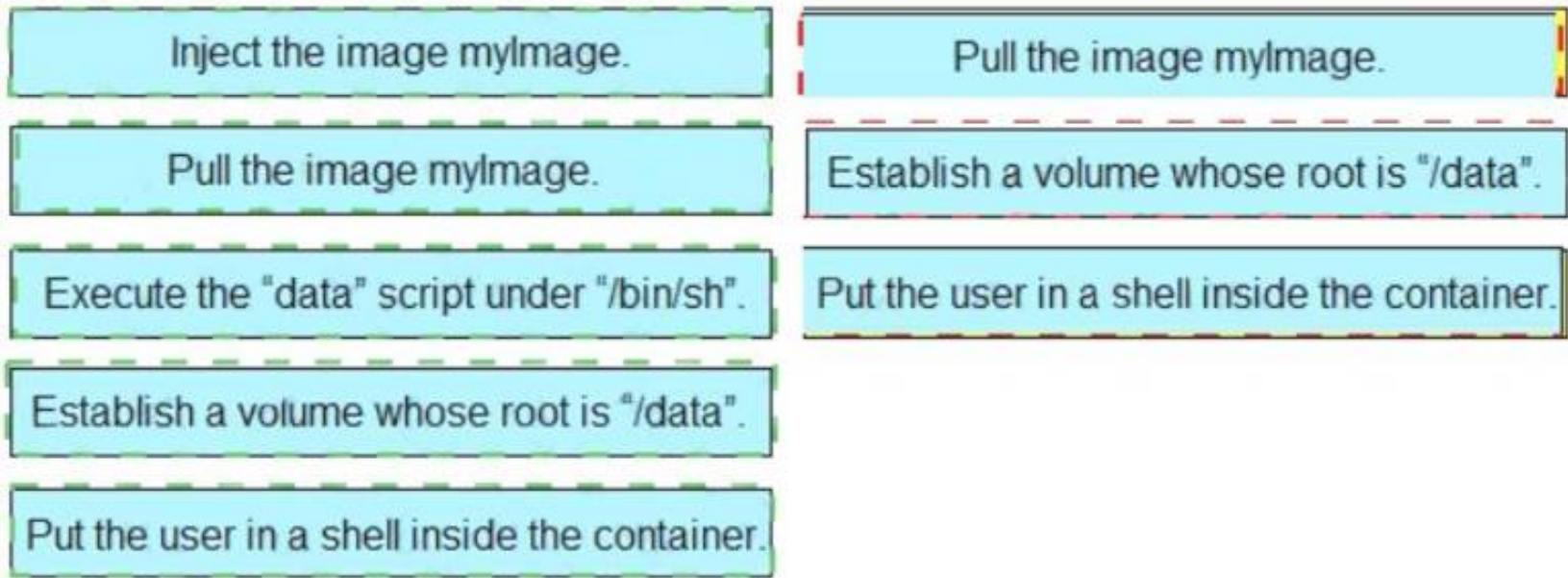
Refer to the exhibit. Drag and drop the actions from the left that the contents of this Dockerfile accomplish onto the right. Not all options are used.

Inject the image myImage.	step 1
Pull the image myImage.	step 2
Execute the "data" script under "/bin/sh".	step 3
Establish a volume whose root is "/data".	
Put the user in a shell inside the container.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 508

- (Exam Topic 3)

A developer is developing a web application that uses username and password to authenticate to the next service. The user credentials must be available at any time in the application. The developer must choose and implement a secure method of storing the authentication credentials that are used in the automation code. Which password handling method must be used to minimize the security risk?

- A. Store the username and password in a separate configuration file.
- B. Store the username and password in a vault.
- C. Store the passwords in a dictionary.
- D. Store the username and password in code.

Answer: B

NEW QUESTION 513

- (Exam Topic 3)

Which Python function is used to parse a string that contains JSON data into a Python dictionary?

- A. json.dumps()
- B. json.to_json()
- C. json.parse()
- D. json.loads()

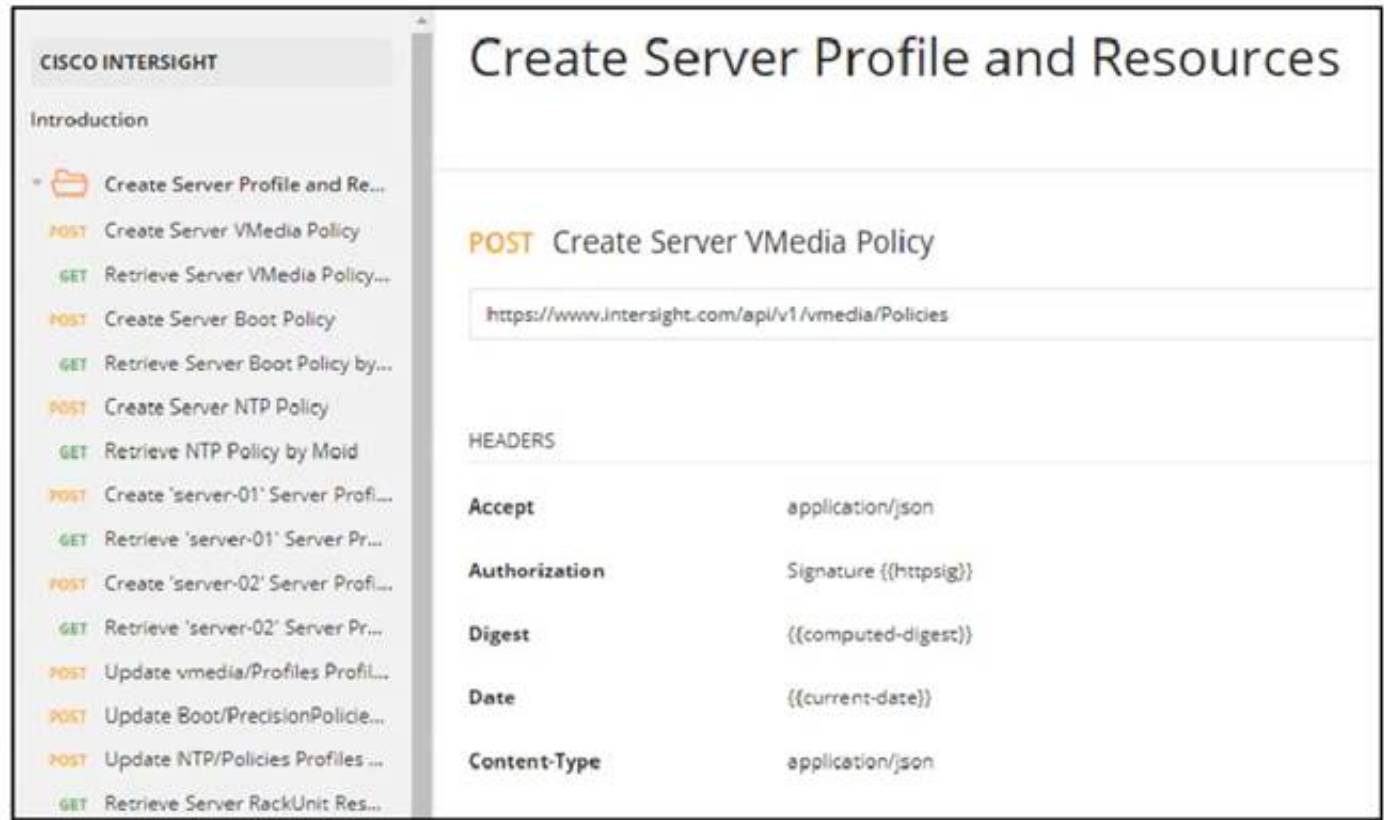
Answer: D

Explanation:

loads() function is present in python built-in 'json' module. This function is used to parse the JSON string.

NEW QUESTION 517

- (Exam Topic 3)



Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to construct a Python script by using the Cisco SDK. Not all options are used.


```
import sys, json, argparse
from intersight.intersight_api_client import IntersightApiClient
from intersight.apis import asset_device_registration_api, asset_device_claim_api

result = dict(changed=False)

parser = argparse.ArgumentParser()
parser.add_argument('-a', '--api_params', default='intersight_api_params.json')
parser.add_argument('-t', '--target_host', dest='hostname', required=True)
args = parser.parse_args()
with open(args.api_params, 'r') as api_file:
    intersight_api_params = json.load( )
api_instance = IntersightApiClient(
    host=intersight_api_params[' '],
    private_key=intersight_api_params['api_private_key_file'],
    api_key_id=intersight_api_params['api_key_id'],
)
api_handle = asset_device_registration_api.AssetDeviceRegistrationApi(api_instance)

kwargs = dict(filter="ConnectionStatus eq 'Connected'")
= api_handle.asset_device_registrations_get(** )
for device in api_result.results:
    if device.device_ip_address[0] == args.hostname:
        api_handle = asset_device_claim_api.AssetDeviceClaimApi(api_instance)
        api_handle.asset_device_claims_moid_delete(moid=device.device_claim.moid)
        result['changed'] = True
        break
```

kwargs

args

api_file

api_key

api_base_uri

result

api_result

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

```
import sys, json, argparse
from intersight.intersight_api_client import IntersightApiClient
from intersight.apis import asset_device_registration_api, asset_device_claim_api

result = dict(changed=False)

parser = argparse.ArgumentParser()
parser.add_argument('-a', '--api_params', default='intersight_api_params.json')
parser.add_argument('-t', '--target_host', dest='hostname', required=True)
args = parser.parse_args()
with open(args.api_params, 'r') as api_file:
    intersight_api_params = json.load( api_file )
api_instance = IntersightApiClient(
    host=intersight_api_params[' api_base_uri '],
    private_key=intersight_api_params['api_private_key_file'],
    api_key_id=intersight_api_params['api_key_id'],
)
api_handle = asset_device_registration_api.AssetDeviceRegistrationApi(api_instance)

kwargs = dict(filter="ConnectionStatus eq 'Connected'")
result = api_handle.asset_device_registrations_get(** kwargs )
for device in api_result.results:
    if device.device_ip_address[0] == args.hostname:
        api_handle = asset_device_claim_api.AssetDeviceClaimApi(api_instance)
        api_handle.asset_device_claims_moid_delete(moid=device.device_claim.moid)
        result['changed'] = True
        break
```

kwargs

args

api_file

api_key

api_base_uri

result

api_result

NEW QUESTION 518

- (Exam Topic 3)

How does edge computing analyze sensitive data in the context of privacy control?

- A. locally instead of sending the data to the cloud for analysis
 B. locally or on the cloud depending on the configuration

- C. all at once by sending the data to the cloud
- D. locally on each node, and then sends the data to the cloud

Answer: A

NEW QUESTION 522

- (Exam Topic 3)

Which standard supported by Cisco IOS XE and Cisco NX-OS is used for automating the configuration of multiple devices across a network?

- A. SNMP – YANG
- B. SYSLOG – YANG
- C. CLI – YANG
- D. NETCONF – YANG

Answer: D

NEW QUESTION 527

- (Exam Topic 3)

How are operations on REST APIs performed as compared to RPC APIs?

- A. In a REST API, operations are performed on an object (node) that is identified by a URL, but RPC APIs are operation-oriented.
- B. In a REST API, operations are performed on an external resource that is defined on the API, but the RCP APIs are resource-oriented.
- C. In a REST API, operations are performed on a platform that is identified by the URL, but RPC APIs are platform-oriented.
- D. In a REST API, operations are performed on an internal resource that is defined on the API, but RPC APIs are resource-oriented.

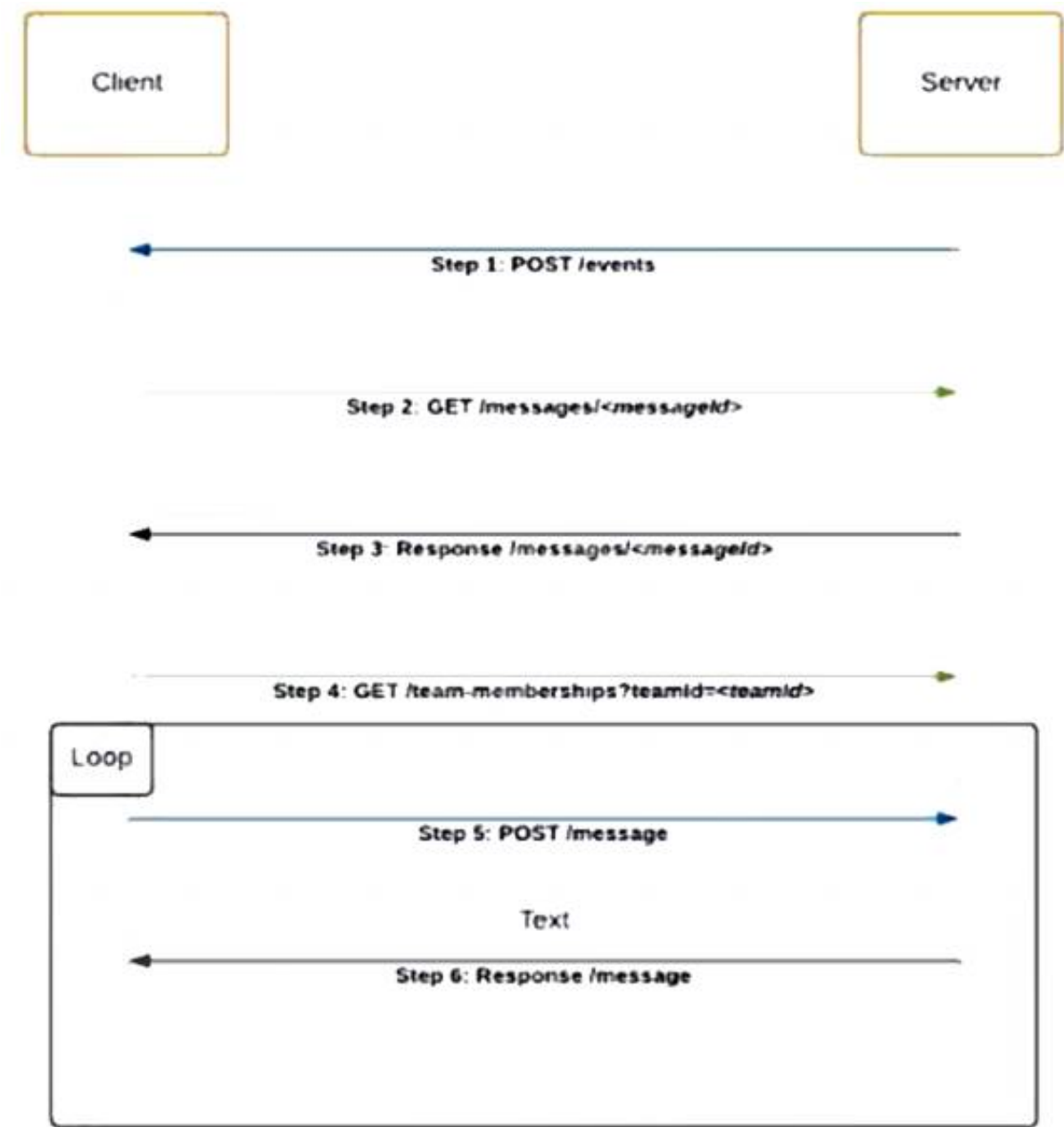
Answer: D

Explanation:

In a REST API, operations are performed on resources, which are accessed and manipulated using HTTP verbs such as GET, POST, PUT, and DELETE. These resources are identified by a URL and are defined within the API. For example, an API may define a resource called "customers", which can be accessed using the URL "http://api.example.com/customers". To retrieve a list of customers, the client could make a GET request to this URL. To create a new customer, the client could make a POST request to the same URL with the necessary data in the request body. In contrast, in an RPC API, operations are performed by making function calls. The client makes a request to the server, specifying the function to be called and any necessary parameters. The server then executes the function and returns the result to the client. RPC APIs are operation-oriented, meaning that the focus is on the function being called rather than the resource being accessed.

NEW QUESTION 528

- (Exam Topic 3)



Refer to the exhibit. Which code snippet represents the sequence.

A.

```
@flask_app.route('/events', methods=['POST'])
def webex_teams_webhook_events():
    json_data = request.json['data']
    response = requests.get(MESSAGE_URL +
    json_data['id'], headers=headers)
    if response.json()['text'] == 'Alert':
        response = requests.get(Team_MEMBERSHIPS_URL,
        headers=headers, params=params)
        for info in response.json()['items']:
            data = {'personId': info['personId'], 'text':
            'Alert'}
            response = requests.post(MESSAGES_URL,
            headers=headers, params=params)
```

B. @flask_app.route('/events', methods=['POST'])

```
def webex_teams_webhook_events():
    json_data = request.json['data']
    if response.json()['text'] == 'Alert':
        response = requests.get(MESSAGE_URL +
        json_data['id'], headers=headers)
        response = requests.get(Team_MEMBERSHIPS_URL,
        headers=headers, params=params)
        for info in response.json()['items']:
            data = {'personId': info['personId'],
            'text': 'Alert'}
            response = requests.post(MESSAGES_URL,
            headers=headers, params=params)
```

C. @flask_app.route('/events', methods=['POST'])

```
def webex_teams_webhook_events():
    json_data = request.json['data']
    response = requests.post(MESSAGE_URL +
    json_data['id'], headers=headers)
    if response.json()['text'] == 'Alert':
        for info in response.json()['items']:
            response = requests.get(Team_MEMBERSHIPS_URL,
            headers=headers, params=params)
            data = {'personId': info['personId'], 'text':
            'Alert'}
            response = requests.get(MESSAGES_URL,
            headers=headers, params=params)
```

D. @flask_app.route('/events', methods=['POST'])

```
def webex_teams_webhook_events():
    json_data = request.json['data']
    response = requests.get(Team_MEMBERSHIPS_URL,
    headers=headers, params=params)
    if response.json()['text'] == 'Alert':
        response = requests.get(MESSAGE_URL +
        json_data['id'], headers=headers)
        for info in response.json()['items']:
            data = {'personId': info['personId'], 'text':
            'Alert'}
            response = requests.post(MESSAGES_URL,
            headers=headers, params=params)
```

Answer: C

NEW QUESTION 533

- (Exam Topic 3)

Which protocol is used for clock synchronization between network devices?

- A. FTP
- B. NNTP
- C. BGP
- D. NTP

Answer: D

Explanation:

Network Time Protocol (NTP) is an internet protocol used to synchronize with computer clock time sources in a network. It belongs to and is one of the oldest parts of the TCP/IP suite. The term NTP applies to both the protocol and the client-server programs that run on computers.

NEW QUESTION 537

- (Exam Topic 3)

Which traffic is handled on the control plane?

- A. BGP
- B. SMB
- C. NTP
- D. NETCONF

Answer: A

NEW QUESTION 539

- (Exam Topic 3)

An engineer must configure Cisco Nexus devices and wants to automate this workflow. The engineer will use an Ansible playbook to configure devices through Cisco NX REST API. Before the code is run, which resource must be used to verify that the REST API requests work as expected?

- A. Cisco Open NX-OS
- B. Cisco NX-OS SDK
- C. Cisco Learning Labs
- D. Cisco Code Exchange for Nexus

Answer: C

NEW QUESTION 541

- (Exam Topic 3)

A developer creates an application that must provide an encrypted connection or API keys. The keys will be used to communicate with a REST API. Which command must be used for the secure connection?

- A. curl-X PUSH 'http://username.app.com/endpoint/?api_key=12345abcdef'
- B. curl -v 'ftp://username.app.com/endpoint/?api_key=12345abcdef'
- C. curl -X GET 'https://username.app.com/endpoint/?api_key=12345abcdef'
- D. curl-X GET 'http://username.app.com/endpoint/?api_key=12345abcdef'

Answer: C

NEW QUESTION 543

- (Exam Topic 3)

A developer writes an application that refines data in temporary secure file storage hosted on the public cloud. Data will be deleted after processing and does not contain any private information. What is the advantage that a public cloud deployment provides to the developer?

- A. high security with encryption
- B. ease in infrastructure management
- C. flexible development
- D. bespoke services

Answer: B

NEW QUESTION 544

- (Exam Topic 3)

Which protocol runs over TCP port 830?

- A. NETCONF
- B. Telnet
- C. RESTCONF
- D. HTTP

Answer: A

NEW QUESTION 546

- (Exam Topic 3)

Which HTTP error code series relates to redirection?

- A. 400
- B. 500
- C. 200
- D. 300

Answer: D

Explanation:

1xx - Informational: The server has received the request and is continuing the process

2xx - Successful: The request was successful and the browser has received the expected information 3xx (Redirection): You have been redirected and the completion of the request requires further action

4xx (Client Error): The website or the page could not be reached, either the page is unavailable or the request contains bad syntax

5xx (Server Error): While the request appears to be valid, the server could not complete the request

NEW QUESTION 549

- (Exam Topic 3)

Why would a developer compare a current version of code to a previous version?

- A. to provide the single source of truth
- B. to troubleshoot code failures
- C. to track who made a change
- D. to aid in collaboration

Answer: B

NEW QUESTION 550

- (Exam Topic 3)

What are two benefits of implementing common data structures when working with APIs in remote systems? (Choose two.)

- A. ensures that developers are limited to using one data schema type
- B. prevents multivendor interoperability
- C. improves security in RESTful web services
- D. enforces standardized data structures
- E. leverages code that is easily managed and reused

Answer: BE

NEW QUESTION 555

- (Exam Topic 3)

What is the purpose of grouping devices in a VLAN?

- A. Devices communicate as if they are connected on the same wire.
- B. Multicast network traffic is limited to the VLAN connected devices.
- C. Unicast messages are limited to the clients connected on the same VLAN.
- D. Network traffic is load balanced between the devices connected to the VLAN.

Answer: B

NEW QUESTION 559

- (Exam Topic 3)

What is a principle of a code review process?

- A. Changes are made after the code is submitted to source control.
- B. It must not prevent code from getting into production as quickly as possible.
- C. Naming standards must be consistent.
- D. A technical lead must sign off on the review.

Answer: D

NEW QUESTION 563

- (Exam Topic 3)

An engineer deploys a Cisco CSR 1000 V instance to a virtual machine. The engineer must output the device configuration in JSON format. Which protocol is used for this task?

- A. YANG
- B. NETCONF
- C. SNMP
- D. RESTCONF

Answer: D

NEW QUESTION 566

- (Exam Topic 3)

A company requires a new platform to store large volumes of log data that is generated in their assembly plant. The platform must be scalable, so the underlying technology must provide a path for fast deployment of new nodes for data and indexing? The data contains sensitive information, so specialist encryption tools must be used to secure the data. Which application deployment model meets the requirements?

- A. edge
- B. private cloud
- C. public cloud
- D. hybrid cloud

Answer: D

Explanation:

A hybrid cloud combines the benefits of both a private cloud, which offers the ability to store sensitive data in a secure, dedicated environment, and a public cloud, which offers the ability to scale quickly and easily by deploying new nodes as needed. With a hybrid cloud deployment, you could use specialist encryption tools to secure the sensitive data in the private cloud, and then take advantage of the scalability and flexibility of the public cloud to handle the large volumes of log data.

NEW QUESTION 570

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