



## **Cisco**

### **Exam Questions 200-901**

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

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### NEW QUESTION 1

- (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 2

- (Exam Topic 3)

Drag and drop the code from the bottom onto the box where the code is missing to construct a Python script that calls a REST API request. The Python script retrieves a list of tasks from a to-do list for effective project management purposes. Not all options are used.

```
import requests

response =  .get('https://todolist.example.com/tasks/')

if  .status_code != 200:
    raise ApiError('GET /tasks/ {}'.format(response.  ))

for item in response.json():
    print('{} {}'.format(item['id'],  ['summary']))
```

- |  |                                       |
|--|---------------------------------------|
| <input type="text" value="item"/>        | <input type="text" value="response"/> |
| <input type="text" value="requests"/>    | <input type="text" value="get()"/>    |
| <input type="text" value="status_code"/> | <input type="text" value="status"/>   |

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

```
import requests

response = requests.get('https://todolist.example.com/tasks/')

if response.status_code != 200:
    raise ApiError('GET /tasks/ {}'.format(response.status_code))

for item in response.json():
    print('{} {}'.format(item['id'], item['summary']))
```

item	response
requests	get()
status_code	status

**NEW QUESTION 3**

- (Exam Topic 3)

Which TCP port is used to connect to a network device by using Telnet?

- A. 23
- B. 69
- C. 400
- D. 830

**Answer:** A

**NEW QUESTION 4**

- (Exam Topic 3)

What is a comparison of YAML and JSON?

- A. YAML has a more consistent approach to representing data compared to JSON.
- B. JSON does not support comments and YAML does.
- C. YAML is a more verbose data structure compared to JSON.
- D. JSON has more common usage in configuration management tools compared to YAML.

**Answer:** B

**Explanation:**

Reference: <https://stackoverflow.com/questions/244777/can-comments-be-used-in-json>

Can I use comments in JSON? No, JSON is a data-only format. Comments in the form //, #, or /\* \*/, which are used in popular programming languages, are not allowed in JSON. You can add comments to JSON as custom JSON elements that will hold your comments, but these elements will still be data.

**NEW QUESTION 5**

- (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 6

- (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 7

- (Exam Topic 3)

A customer's cloud services must:

Migrate services to another data center on demand. Save the operational state of the machine on demand. Support Windows and Linux GUIs.

Maximize hardware utilization.

Which type of deployment meets these requirements?

- A. bare metal
- B. container
- C. virtual machine
- D. Kubernetes

**Answer:** C

#### NEW QUESTION 8

- (Exam Topic 3)

A developer completed the creation of a script using Git. Before delivering it to the customer, the developer wants to be sure about all untracked files, without losing any information. Which command gathers this information?

- A. git clean -n
- B. git rm -f
- C. git clean -r
- D. git rm \*

**Answer:** A

#### NEW QUESTION 9

- (Exam Topic 3)

A developer has addressed a bug that was found in the production code of an application. A separate file named 'bug427896191v\_fix' has been created with the changes to the code. Which Git command must be used to incorporate the bug fix into the production code?

- A. git rebase
- B. git cat-file
- C. git merge-file
- D. git bisect

**Answer:** C

#### NEW QUESTION 10

- (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 10

- (Exam Topic 3)

```

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

Refer to the exhibit. A network engineer must configure new interfaces on a set of devices and is planning to use an Ansible playbook for the task. All devices support SSH and NETCONF protocol, and the interface variables are unique per device. In which directory are the YAML files including variables hosted to automate the task with the netconf\_config module?

- A. current working directory
- B. host\_vars directory
- C. group\_vars directory
- D. home directory

**Answer: A**

**NEW QUESTION 14**

- (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 15**

- (Exam Topic 3)

A group of software developers wants to improve its collaboration with the operations team. The group wants to deliver release-ready code that merges code changes back to the main branch and runs the automated testing as often as possible. Which DevOps concept does this scenario represent?

- A. continuous delivery
- B. version control
- C. continuous integration
- D. continuous deployment

**Answer: C**

**NEW QUESTION 16**

- (Exam Topic 3)

**CISCO INTERSIGHT**

Introduction

- 📁 Create Server Profile and Re...
- POST Create Server VMedia Policy
- GET Retrieve Server VMedia Policy...
- POST Create Server Boot Policy
- GET Retrieve Server Boot Policy by...
- POST Create Server NTP Policy
- GET Retrieve NTP Policy by Moid
- POST Create 'server-01' Server Profi...
- GET Retrieve 'server-01' Server Pr...
- POST Create 'server-02' Server Profi...
- GET Retrieve 'server-02' Server Pr...
- POST Update vmedia/Profiles Profi...
- POST Update Boot/PrecisionPolicie...
- POST Update NTP/Policies Profiles ...
- GET Retrieve Server RackUnit Res...

## Create Server Profile and Resources

**POST** Create Server VMedia Policy

https://www.intersight.com/api/v1/vmedia/Policies

HEADERS

<b>Accept</b>	application/json
<b>Authorization</b>	Signature {{httpsig}}
<b>Digest</b>	{{computed-digest}}
<b>Date</b>	{{current-date}}
<b>Content-Type</b>	application/json

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 21**

- (Exam Topic 3)

What is a benefit of a CI/CD pipeline for infrastructure?

- A. removes manual errors
- B. enables manual steps
- C. removes the need for operations
- D. provides variety for deployments

**Answer: A**

**NEW QUESTION 23**

- (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 24**

- (Exam Topic 3)

A developer plans to deploy a new application that will use an API to implement automated data collection from Webex with these requirements:

The application was created by using the request library. Requires HTTP basic authentication.

Provides data in JSON or XML formats.

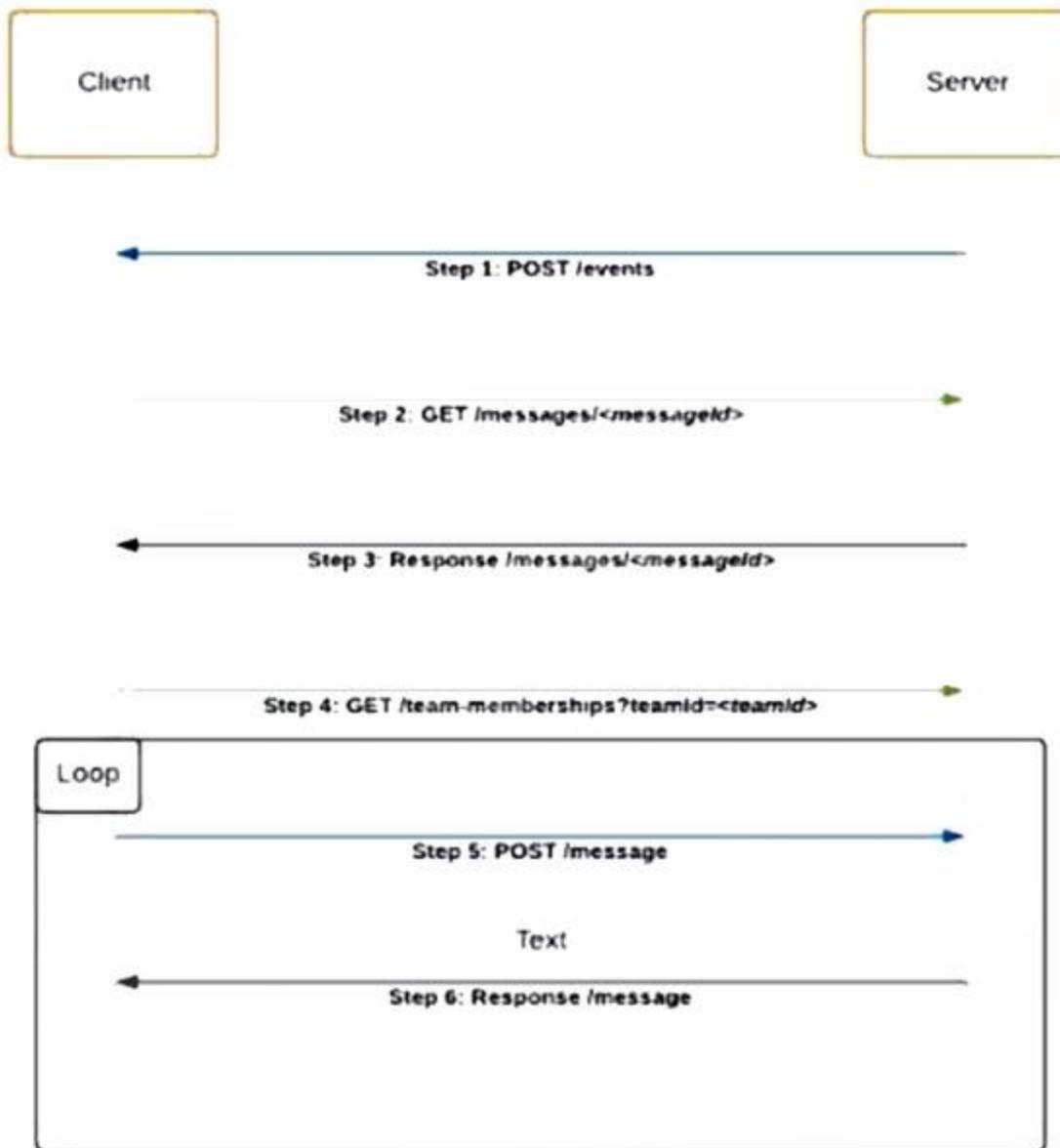
Which Cisco DevNet resource helps the developer with how to use the API?

- A. DevNet sandbox
- B. API documentation
- C. forums
- D. DevNet code exchange

**Answer: B**

NEW QUESTION 25

- (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 29

- (Exam Topic 3)

An engineer needs to retrieve a list of locally available Firepower Threat Defense upgrade packages by using the Firepower Management Center REST API. The engineer uses a GET request with the URL:

/api/fmc\_platform/v1/updates/upgradepackages/f413afeb-e6f6-75f4-9169-6d9bd49s625e

What does "f413afeb-e6f6-75f4-9169-6d9bd49s625e" represent?

- A. container UUID
- B. package UUID
- C. domain UUID
- D. object UUID

Answer: B

#### Explanation:

"GET upgradepackages Request Type: GET

Description: Retrieves a list of locally available Firepower Threat Defense upgrade packages, including major upgrades, maintenances release upgrades, and hotfixes.

URL: /api/fmc\_platform/v1/updates/upgradepackages

URL for GET by ID: /api/fmc\_platform/v1/updates/upgradepackages/{package\_UUID}" Source:

[https://www.cisco.com/c/en/us/td/docs/security/firepower/640/api/REST/Firepower\\_Management\\_Center\\_RES](https://www.cisco.com/c/en/us/td/docs/security/firepower/640/api/REST/Firepower_Management_Center_RES)

### NEW QUESTION 30

- (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 32

- (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 36**

- (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 41**

- (Exam Topic 3)

Which protocol runs over TCP port 830?

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

**Answer:** A

**NEW QUESTION 46**

- (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 51**

- (Exam Topic 3)

Refer to the exhibit. Drag and drop the code snippets from the bottom onto the blanks in the Python script to retrieve a list of network devices from Cisco DNA Center. Not all options are used.

```
import requests
import json
from urllib3.exceptions import InsecureRequestWarning

requests.packages.urllib3.disable_warnings()

dna_center_url = "My_DNA_Center_URL"
authentication = ("dnacenteruser", "dnacenter_password")

def get_token ():
    url = "https:// " + dna_center_url + "/dna/system/api/v1/auth/token"
    response = requests.post(url, auth=authentication, verify=False)
    token = response.json()['Token']
    return token

def get_device_list():
    token = 
    url = "https:// " + dna_center_url + "dna/intent/api/v1/" + 
    header = {  : token, 'content-type' : 'application/json' }
    response = requests.get(url, headers=header)
    device_list = 
    print(json.dumps (device_list, indent=4))

if __name__ == "__main__":
    get_device_list()
```

- get\_token()
- network-device
- x-auth-token
- response.json()
- response.xml
- Authorization

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

```
import requests
import json
from urllib3.exceptions import InsecureRequestWarning

requests.packages.urllib3.disable_warnings()

dna_center_url = "My_DNA_Center_URL"
authentication = ("dnacenteruser", "dnacenter_password")

def get_token ():
    url = "https:// " + dna_center_url + "/dna/system/api/v1/auth/token"
    response = requests.post(url, auth=authentication, verify=False)
    token = response.json()['Token']
    return token

def get_device_list():
    token = 
    url = "https:// " + dna_center_url + "dna/intent/api/v1/" + 
    header = {  : token, 'content-type' : 'application/json' }
    response = requests.get(url, headers=header)
    device_list = 
    print(json.dumps (device_list, indent=4))

if __name__ == "__main__":
    get_device_list()
```

- get\_token()
- network-device
- x-auth-token
- response.json()
- response.xml
- Authorization

**NEW QUESTION 52**  
 - (Exam Topic 3)

**POST** /v1/meetings

**Body Parameters**

**title**  
 string Required  
 Meeting title. The title can be a maximum of 128 characters long.

**agenda**  
 string  
 Meeting agenda. The agenda can be a maximum of 2500 characters long.

**password**  
 string  
 Meeting password. Must conform to the site's password complexity settings. Read [password management](#) for details. If not specified, a random password conforming to the site's password rules will be generated automatically.

**start**  
 string Required  
 Date and time for the start of meeting in any [ISO 8601](#) compliant format. start cannot be before current date and time or after end. Duration between start and end cannot be shorter than 10 minutes or longer than 24 hours.

**end**  
 string Required  
 Date and time for the end of meeting in any [ISO 8601](#) compliant format. end cannot be before current date and time or before start. Duration between start and end cannot be shorter than 10 minutes or longer than 24 hours.

Refer to the exhibit. A bespoke meeting booking system must be integrated with Cisco Webex so that meetings are created automatically. Drag and drop the code from the bottom onto the box where the code is missing to create a sample meeting. Not all options are used.

```
import requests, json

[ ] = 'eyJhbGc ... yJbN8'

headers = {
    'Authorization': f'Bearer {token}',
    'Content-Type': 'application/json'
}

payload = {
    "title": "DevNet Webex Discussion",
    "password": "AGrtg1234",
    "start": "2020-11-10T15:00:00Z",
    "end": "2020-11-10T17:00:00Z",
    "enabledAutoRecordMeeting": False,
    "allowAnyUserToBeCoHost": False
}

response = requests.request(" [ ] ", f'{BASE_URL}/ [ ] ',
    headers=headers, data=json.dumps( [ ] ))
print(response.text.encode('utf8'))
```

payload	PUT	token
v1/meeting	v1/meetings	POST

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

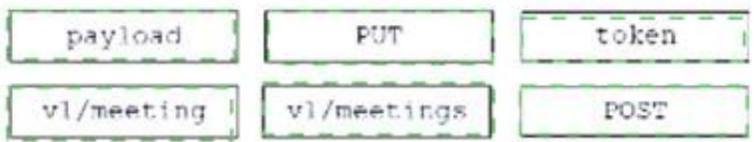
```
import requests, json

token = 'eyJhbGc ... yJbN8'

headers = {
    'Authorization': f'Bearer {token}',
    'Content-Type': 'application/json'
}

payload = {
    "title": "DevNet Webex Discussion",
    "password": "AGrtgl234",
    "start": "2020-11-10T15:00:00Z",
    "end": "2020-11-10T17:00:00Z",
    "enabledAutoRecordMeeting": False,
    "allowAnyUserToBeCoHost": False
}

response = requests.request("POST", f'{BASE_URL}/vl/meetings',
    headers=headers, data=json.dumps(payload))
print(response.text.encode('utf8'))
```



**NEW QUESTION 53**

- (Exam Topic 3)

What is a capability of Ansible playbooks?

- A. They execute scheduled tasks regularly.
- B. They define the state for a device configuration.
- C. They collect SNMP logs from networking devices.
- D. They utilize the target device agent to execute.

Answer: A

**NEW QUESTION 54**

- (Exam Topic 3)

Refer to the exhibit.

```
1 <routing xmlns="urn:ietf:params:xml:ns:yang:ietf-routing">
2   <routing-instance>
3     <name>default</name>
4     <description>default-vrf [read-only]</description>
5     <routing-protocols>
6       <routing-protocol>
7         <type xmlns:ospf="urn:ietf:params:xml:ns:yang:ietf-
*         ospf">ospf:ospfv2</type>
8         <name>100</name>
9         <ospf xmlns="urn:ietf:params:xml:ns:yang:ietf-ospf">
10        <instance>
11          <af xmlns:rt="urn:ietf:params:xml:ns:yang:ietf-
*          routing">rt:ipv4</af>
12          <router-id>1.1.1.1</router-id>
13          <nsr>
14            <enable>>false</enable>
15          </nsr>
16          <auto-cost>
17            <enable>>false</enable>
18          </auto-cost>
19          <redistribution
*          xmlns="urn:ietf:params:xml:ns:yang:cisco-ospf">
20            <rip/>
21          </redistribution>
22        </instance>
23      </ospf>
24    </routing-protocol>
25  </routing-protocols>
26 </routing-instance>
27 </routing>
```

What are two characteristics of the NETCONF response? (Choose two.)

- A. ospf is defined by the ietf-ospf module.

- B. ietf-ospf imports ietf-routing.
- C. redistribution is a module of type cisco-ospf.
- D. routing protocols is a list.
- E. The main module is routing.

**Answer:** BC

**NEW QUESTION 58**

- (Exam Topic 3)

Which technology is responsible for matching a name to an IP address of an application running on a host?

- A. firewall
- B. proxy
- C. load balancer
- D. DNS

**Answer:** D

**NEW QUESTION 60**

- (Exam Topic 3)

What is a capability of the AXL API?

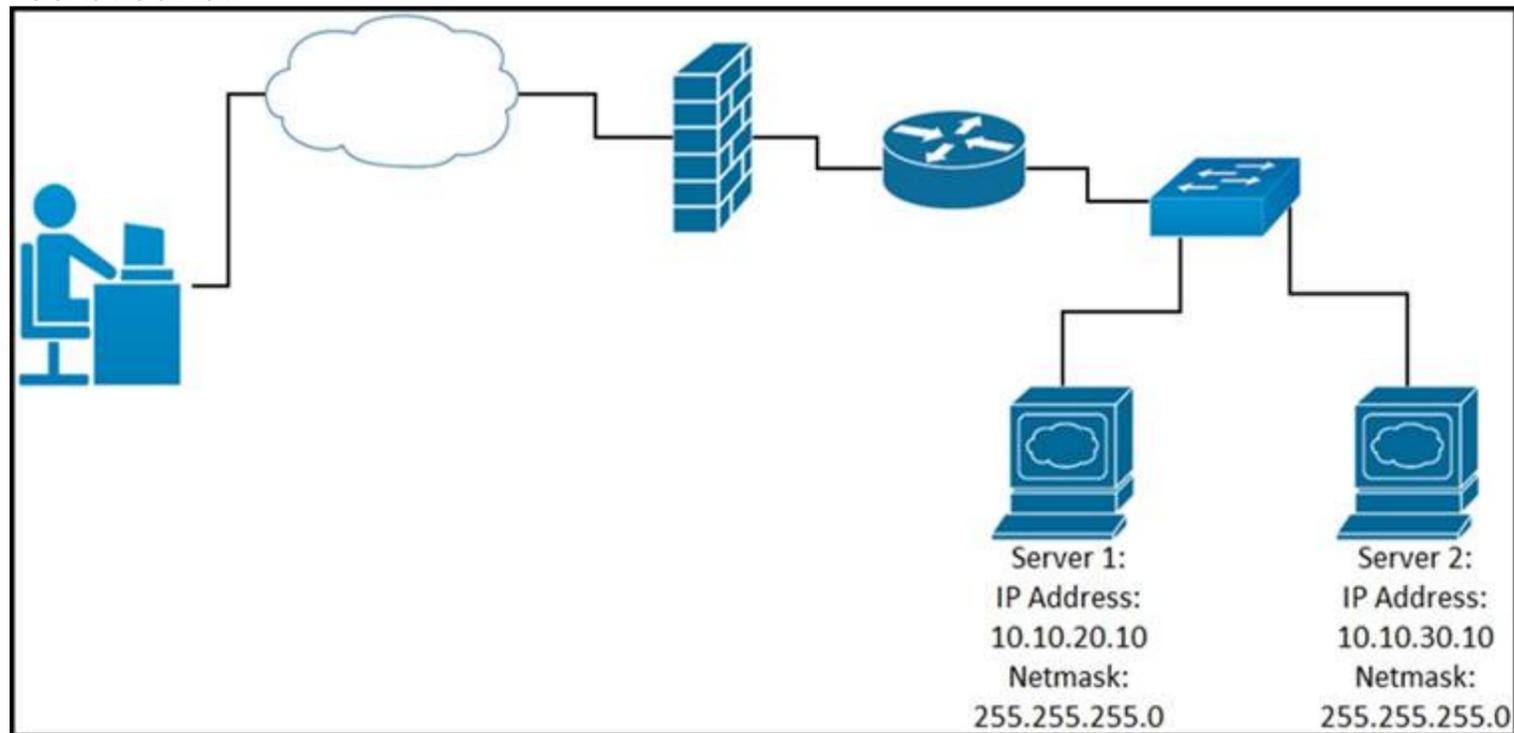
- A. It signs a user in to a phone that is configured for extension mobility.
- B. It pulls logs for the Cisco Tomcat service.
- C. It authenticates users who exist in Cisco Unified Communications Manager.
- D. It provides support for HTTP and HTTPS communications.

**Answer:** C

**NEW QUESTION 64**

- (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 66**

- (Exam Topic 3)

A developer is running an application that connects to the Cisco website and collects data. The application will be hosted in a local data center and the data will need to be collected on a frequent basis. The application client requires certain environmental variables to be set before the run. Which Bash command sets the environmental variables for a Linux system?

- A. `"cisco.com"=WEBSITE`
- B. `export lvar=23`
- C. `WEBSITE="cisco.com"`
- D. `export website="cisco.com"`

Answer: D

**NEW QUESTION 67**

- (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:**

document author	initializes a new build stage
command to execute	document author
initializes a new build stage	command to execute
copies new files or directories	
sets the userid	

**NEW QUESTION 72**

- (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 75**

- (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 78**

- (Exam Topic 3)

Drag and drop the code from the bottom onto the box where the code is missing to enable ports on a switch by using RESTCONF. Not all options are used.

```
def enable_function(if_name, if_status, if_type):
    headers = {'Accept': 'application/yang-data+json',
              'Content-Type': 'application/ [ ] '}
    payload = {
        " [ ] ": {
            "name": if_name,
            "enabled": if_status,
            "type": if_type,
        }
    }
    [ ] = 'https://192.168.1.1:8443'
    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
    res = requests.put(f'{base_url}{restconf}={if_name}',
                      headers=headers, json=payload,
                      auth=('cisco', 'secret'), verify=False)

enable_function('Loopback1, true, ' [ ] ')
```

- |                             |                               |
|-----------------------------|-------------------------------|
| yang-data+json              | application/xml               |
| ietf-interfaces:interface   | iana-if-type:softwareLoopback |
| base_url                    | run_function                  |
| iana-if-type:ethernetCsmacd |                               |

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

```
def enable_function(if_name, if_status, if_type):
    headers = {'Accept': 'application/yang-data+json',
              'Content-Type': 'application/ yang-data+json '}
    payload = {
        " iETF-interfaces:interface ": {
            "name": if_name,
            "enabled": if_status,
            "type": if_type,
        }
    }
    base_url = 'https://192.168.1.1:8443'
    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
    res = requests.put(f'{base_url}{restconf}={if_name}',
                      headers=headers, json=payload,
                      auth=('cisco', 'secret'), verify=False)

enable_function('Loopback1, true, ' iana-if-type:ethernetCsmacd ')
```

- |                             |                               |
|-----------------------------|-------------------------------|
| yang-data+json              | application/xml               |
| ietf-interfaces:interface   | iana-if-type:softwareLoopback |
| base_url                    | run_function                  |
| iana-if-type:ethernetCsmacd |                               |

**NEW QUESTION 81**

- (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:**

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

**NEW QUESTION 84**

- (Exam Topic 3)

Which IP service synchronizes the time across devices?

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

**Answer:** B

**NEW QUESTION 86**

- (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 88**

- (Exam Topic 3)

During which step of the CI/CD pipeline for infrastructure automation is code from multiple developers combined to compile and test different components?

- A. integration
- B. deployment
- C. development
- D. testing

**Answer:** A

**NEW QUESTION 92**

- (Exam Topic 3)

Drag and drop the API characteristics from the left onto the categories on the right.

The API is seen as a function call.	REST  
There is communication between server and client.	
It follows a resource-oriented model.	RPC  
The API can be stateless.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

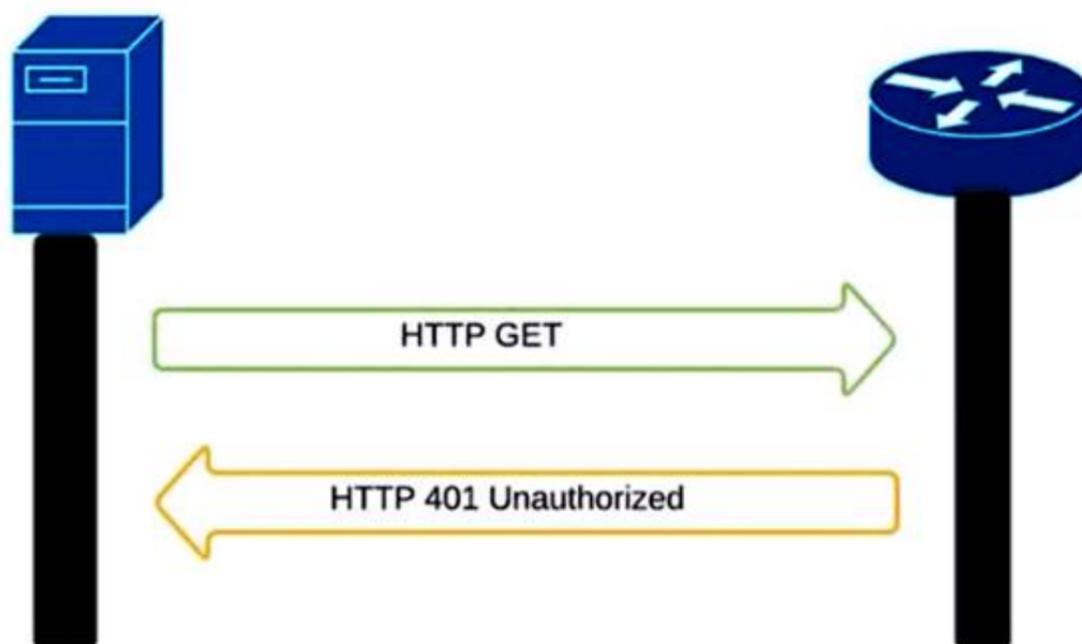
Graphical user interface, application Description automatically generated

**NEW QUESTION 93**

- (Exam Topic 3)

Refer to the exhibit.

```
curl -i -k -X 'GET' 'https://172.18.110.64:443/restconf/data/Cisco-IOS-XE-native:native/hostname'
-H 'Accept: application/yang-data+json' \
-u 'cisco:cisco'
```



An administrator attempts to perform a GET operation by using the Cisco IOS XE RESTCONF API to return the hostname of a device. The sequence diagram in the exhibit illustrates the HTTP messages observed. Which change to the API request resolves the issue?

- A. Remove the -H 'Accept: application/yang-data+json' header.
- B. Replace -u cisco:cisco parameter with -u 'cisco:cisco'.
- C. Change the request method from -X 'GET' to -X 'POST'.
- D. Add the -H 'Content-Type: application/yang-data+json' header.

**Answer:** B

**NEW QUESTION 95**

- (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 98**

- (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 102**

- (Exam Topic 3)

```

HTTPS/1.1 201 Created
Date: Tue, 08 Nov 2020 09:37:27 GMT
Server: example-server
Location: https://example.com/restconf/data\
          example-jukebox/library/dogbreed=Australian%20Cattle%20Dog
Last Modified: Tue 08 Nov 2020 09:37:27 GMT
ETag: "s1878124t4c"
    
```

Refer to the exhibit. Which RESTCONF request results in this response?

A.

```

GET /restconf/data/example-jukebox:jukebox/library HTTP/1.1
Host: example.com
Content-Type: application/yang-data-json

{
  "Example-jukebox:dogbreed" : [
    {
      "name" : "Australian Cattle Dog"
    }
  ]
}
    
```

B.

```

CONFIG /restconf/data/example-jukebox:jukebox/library HTTP/1.1
Host: example.com
Content-Type: application/yang-data-json

{
  "Example-jukebox:dogbreed" : [
    {
      "name" : "Australian Cattle Dog"
    }
  ]
}
    
```

C.

```
PUT /restconf/data/example-jukebox:jukebox/library HTTP/1.1
Host: example.com
Content-Type: application/yang-data-json

{
  "Example-jukebox:dogbreed" : [
    {
      "name" : "Australian Cattle Dog"
    }
  ]
}
```

D.

```
POST /restconf/data/example-jukebox:jukebox/library HTTP/1.1
Host: example.com
Content-Type: application/yang-data+json

{
  "Example:dogbreed" : [
    {
      "name" : "Australian Cattle Dog"
    }
  ]
}
```

Answer: D

**NEW QUESTION 106**

- (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:
                [ ]
                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):
            [ ]
    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(35)          | 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 111**

- (Exam Topic 3)

What is a procedural component of CI/CD pipelines?

- A. Bundled artifacts must be generated.
- B. Every test must pass for the pipeline to continue its execution.
- C. Some tests fail without stopping the pipeline execution.
- D. The release label that identifies the build is optional.

**Answer: B**

**Explanation:**

In a CI/CD (Continuous Integration/Continuous Deployment) pipeline, a procedural component is a specific step or action that is carried out in a specific order as part of the pipeline process. One of the procedural components of a CI/CD pipeline is that every test must pass in order for the pipeline to continue its execution. If any test fails, the pipeline will stop and the issue must be addressed before the pipeline can continue. This is an important procedural component of a CI/CD pipeline because it ensures that the code being deployed is of high quality and meets the necessary standards before it is released.

**NEW QUESTION 115**

- (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 116**

- (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 117**

- (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 118**

- (Exam Topic 3)

**CISCO SECURITY APIS**

Introduction

- API Workflow
  - GET 1.) Find all events where Malwar...
  - GET 2.) Find Endpoint Details for Rem...
  - PUT 3.) Nuke the Endpoint to Prevent...
  - GET 4.) Find samples in Threat Grid
  - GET 5.) Get all sample domains to an...
  - POST 6.) Check all domains against Inv...
  - GET 7.) For suspect domains get mor...
  - POST 8.) Enforce on bad Domains in U...
  - GET 9.) Research other Ransomware ...
  - POST Generate Authentication Token ...
  - POST 10.) Add custom intelligence Fee...
- NGFW
  - POST Generate Authentication Token
  - GET Access Policies
  - GET Access Rules
  - GET Access Rule Details
  - POST New Access Rule in Policy
  - POST New Bulk Access Rule in Policv

## Cisco Security APIs

The main goal of this collection to help the developer understand the various API capabilities of Cisco NG Malware Protection, Threat Grid, ISE and Umbrella. It will cover useful API features for each of the products and how to properly use them. Simple workflow is also included in the collection to *Collect* all the characteristics/signatures of the possible attack using AMP. *Validate* the collected intelligence with Threat Grid and Umbrella. *Deploy* the intelligence to the NGFW, Umbrella and ISE to protect and contain the threat.

---

## API Workflow

**GET 1.) Find all events where Malware Executed**

`https://amp.dcloud.cisco.com/v1/events?connector_guid[]=&event_type[]=1107296272`

Get a listing of all the events for a specific computer when the quarantine failed

PARAMS

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 that calls a REST API request. Not all options are used.

```
import requests
[ ] = "https://fmc-hostname/api/fmc_tid/v1/domain//tid/source"
payload = {
    "name": "Threat Grid Ransomware DNS",
    "delivery": "url",
    "uri": "https://panacea.threatgrid.com/api/v3/feeds"+
    "/ransomware-dns 2017-12-08.stix?api_key=",
    "refresh": 1440,
    "version": "1.0.0",
    "params": {
        "selfSignedServerCertificate": "true",
        "hostnameVerifier": "allow_all"
    },
    "property": {
        "ttl": 90,
        "publish": true,
        "action": "monitor"
    }
}
headers = {
    'X-auth-access-token': 'access_token', ' [ ] ': 'application/json'
}
response = requests. [ ] ("POST", url,
    headers=headers, data = [ ] )
print(response.text.encode('utf8'))
```

url

Encoding

base\_url

Content-Type

post

request

payload

- A. Mastered
- B. Not Mastered

Answer: A

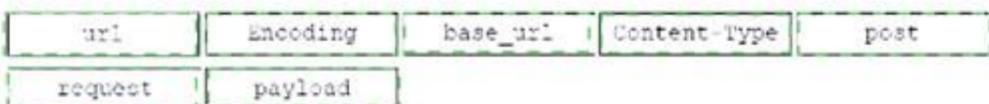
**Explanation:**

```
import requests

url = "https://fmc-hostname/api/fmc_tid/v1/domain//tid/source"
payload = {
    "name": "Threat Grid Ransomware DNS",
    "delivery": "url",
    "uri": "https://panacea.threatgrid.com/api/v3/feeds"+
    "/ransomware-dns 2017-12-08.stix?api_key=",
    "refresh": 1440,
    "version": "1.0.0",
    "params": {
        "selfSignedServerCertificate": "true",
        "hostnameVerifier": "allow_all"
    },
    "property": {
        "ttl": 90,
        "publish": true,
        "action": "monitor"
    }
}

headers = {
    'X-auth-access-token': 'access_token', 'Content-Type': 'application/json'
}

response = requests.request("POST", url,
    headers=headers, data = base_url )
print(response.text.encode('utf8'))
```



**NEW QUESTION 119**

- (Exam Topic 3)

```
--- functions.py 2020-09-26 14:26:25.000000000 -0600
--- new.py 2020-09-26 14:26:10.000000000 -0600
@@ -21,7 +21,7 @@
 def print_devices_info(devices):
     # Print id, hostname and management IP
     for item in devices:
-         print(item['id'], item['hostname'], item['managementIpAddress'])
-         print(item['id'], item['hostname'])

     # Get Authentication token
     def get_dnac_jwt_token():
@@ -66,9 +66,15 @@
     response = get_devices_list(headers, {})
     print_devices_info(response)

-     # print devices list filtered by hostname
-     print('\nPrinting device list filtered by hostname ...')
-     query_string_params = {'hostname': 'CSR1Kv-01.devnet.local'}
-     response = get_devices_list(headers, query_string_params)
-     print_devices_info(response)

     # print devices list filtered by platform Id
     print('\nPrinting device list filtered by platform id...')
-     query_string_params = {'platformId': 'C9500-40X'}
-     query_string_params = {'platformId': 'AIR-AP1141N-A-K9'}
     response = get_devices_list(headers, query_string_params)
     print_devices_info(response)
```

Refer to the exhibit. An engineer is comparing two files by using the unified diff format. Which code snippet belongs to the new.py file?

- A. 77 query\_string\_params = {'platformId': 'AIR-AP1141N-A-K9'}
- B. 21 print(item['id'], item['hostname'])
- C. 24 print(item['id'], item['hostname'], item['managementIpAddress'])
- D. 66 # print devices list filtered by hostname  
 67 print('\nPrinting device list filtered by hostname ...')  
 68 query\_string\_params = {'hostname': 'CSR1Kv-01.devnet.local'}  
 69 response = get\_devices\_list(headers, query\_string\_params)  
 70 print\_devices\_info(response)

Answer: A

**NEW QUESTION 120**

- (Exam Topic 3)

Drag and drop the code snippets from the bottom onto the blanks in the code to complete the happy path scenario. Not all options are used.

```
import member as m
import pytest
class Team:
    def __init__(self, name):
        self.name = name
        self.members = []
    def add_member(self, member):
        if member:
            if member not in self.members:
                [ ]
                return True
            else:
                [ ]
        else:
            [ ]

@pytest.fixture
def team():
    team = Team('Reds')
    yield team
    del team

@pytest.fixture
def member():
    member = m.Member('Chris George')
    yield member
    del member

@pytest.mark.usefixtures('team', 'member')
class TestHappyPathAddMemberToTeam:
    def test_add_member_to_team(self, team, member):
        assert [ ] is True
```

- [ return True ]
- [ team.add\_member(member) ]
- [ self.members.append(member) ]
- [ yield member ]
- [ return False ]
- [ member.add\_member() ]

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

```
import member as m
import pytest
class Team:
    def __init__(self, name):
        self.name = name
        self.members = []
    def add_member(self, member):
        if member:
            if member not in self.members:
                [ member.add_member() ]
                return True
            else:
                [ return False ]
        else:
            [ team.add_member(member) ]

@pytest.fixture
def team():
    team = Team('Reds')
    yield team
    del team

@pytest.fixture
def member():
    member = m.Member('Chris George')
    yield member
    del member

@pytest.mark.usefixtures('team', 'member')
class TestHappyPathAddMemberToTeam:
    def test_add_member_to_team(self, team, member):
        assert [ yield member ] is True
```

- [ return True ]
- [ team.add\_member(member) ]
- [ self.members.append(member) ]
- [ yield member ]
- [ return False ]
- [ member.add\_member() ]

**NEW QUESTION 123**

- (Exam Topic 3)

```

import requests
def main():
    def getCreds():
        user = input('User: ')
        pwd = Getpass('Pass: ')
        return (user,pwd)

    def login(ipaddr, user, pwd):
        url = "https://{:ipaddr}/api/aaaLogin.json".format(ipaddr=ipaddr)
        data = '{"aaaUser":{"attributes":{"name":"{user}s","pwd":"{pwd}s"}}}'
        + '{"pwd":pwd,"user":user}'
        response = requests.post(url,data=data,verify=False)
        cookie = response.headers['Set-Cookie']
        return cookie

    def getstuff(ipaddr,cookie):
        headers = {"Cookie":cookie}
        url = "https://{:ipaddr}/api/node/class/
        fvTenant.json".format(ipaddr=ipaddr)
        response = requests.get(url,headers=headers,verify=False)
        grouplist = []
        for x in response.json()["imdata"]:
            grouplist.append(x["fvTenant"]["attributes"]["name"])
        return ','.join(grouplist)

    ipaddr = "192.168.255.2"
    user,pwd = getCreds()
    token = login(ipaddr,user,pwd)
    return getstuff(ipaddr,cookie)

if __name__ == '__main__':
    result = main()
    print(result)

```

Refer to the exhibit. Which action does the script perform?

- A. It queries user credentials from Cisco IOS XE devices.
- B. It retrieves device identification from Cisco DNA Center.
- C. It exports SSID information from Meraki dashboard.
- D. It collects group information from ACI.

**Answer: D**

**NEW QUESTION 126**

- (Exam Topic 3)

Which port does HTTPS use by default?

- A. 433
- B. 443
- C. 803
- D. 883

**Answer: B**

**NEW QUESTION 129**

- (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 134**

- (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 137

- (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. fester code development

**Answer: D**

#### Explanation:

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

#### NEW QUESTION 142

- (Exam Topic 3)

```
#!/bin/bash
apt-get update
apt-get -y install git
cd Code/Network_Config
mkdir PRODUCTION
cd PRODUCTION
touch state.yml
vi state.yml
```

Refer to the exhibit. A network engineer executes the bash script shown. Which two things are achieved by running the script? (Choose two.)

- A. A directory called PRODUCTION is created.
- B. The engineer changes to the parent directory.
- C. A YAML file is created.
- D. A YAML file is removed.
- E. A directory called state.yml is created.

**Answer: AC**

#### NEW QUESTION 145

- (Exam Topic 3)

```
api_endpoint = f"https://veryusefulapi/v2/authenticate"

headers = {
    "Authorization": "Basic YWRtaW46c3VwZXJzZWNyZXQ="
    "Accept": "application/json"
}

req = requests.get(api_endpoint, headers=headers)
```

Refer to the exhibit. A developer is part of a team that is working on an open-source project in which source code is hosted in a public GitHub repository. While the application was built, security concerns were addressed by encrypting the credentials on the server. After a few months, the developer realized that a hacker managed to gain access to the account. The exhibit contains part of the source code for the login process. Why was the attacker able to access the developer's account?

- A. The encoded credentials were available in the source code.
- B. The application was not encrypting the communication with the server.
- C. The credentials were encrypted in the source code.
- D. An SSL certificate was used instead of the TLS protocol to authenticate.

**Answer: A**

#### NEW QUESTION 149

- (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 150

- (Exam Topic 3)

Refer to the exhibit.

```
HTTP Request

curl http://hello-api.info -v

HTTP Response

* Trying hello-app.info...
* TCP_NODELAY set
* Connected to hello-app.info (hello-app.info) port 80 (#0)
> GET / HTTP/1.1
> Host:hello-app.info
> User-Agent: curl/7.64.1
> Accept: */*
>

< HTTP/1.1 502 Bad Gateway
< Server: nginx/1.14.0 (Ubuntu)
< Date: Sat, 21 Nov 2020 11:09:54 GMT
< Content-Type: text/html
< Content-Length: 182
< Connection: keep-alive
```

A developer cannot reach the web application behind an NGINX load balancer. The developer sends a request to an application FQDN with cURL but gets an HTTP 502 response. Which action solves the problem?

- A. Fix errors in the server configuration, which is behind the load balancer.
- B. Bring up the load balancer to the active state.
- C. Fix errors in the cURL request sent by the client.
- D. Change the default gateway on the load balancer to an active one.

**Answer:** A

#### Explanation:

The HyperText Transfer Protocol (HTTP) 502 Bad Gateway server error response code indicates that the server, while acting as a gateway or proxy, received an invalid response from the upstream server.

<https://developer.mozilla.org/en-US/docs/Web/HTTP/Status/502#:~:text=The%20HyperText%20Transfer%20P>

#### NEW QUESTION 153

- (Exam Topic 2)

Which configuration management tool has an agentless capability?

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

**Answer:** C

#### NEW QUESTION 156

- (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 159

- (Exam Topic 2)

Refer to the exhibit.

```
import requests, sys
from config import user, password

url = "http://restconf.devnet.com:9443/api/running/interfaces"
headers = 
response = requests.put(url, auth=(user, password), headers=headers,
verify=False)
print(response.text)
```

A network engineer wants to use an API to update information about device interfaces. The network devices are deployed in a Cisco DevNet Sandbox and have running interfaces. Which line of code needs to be placed in the snippet where the code is missing?

- A. {'Content-Type': 'application/yang.data+xml', 'Accept': 'application/yang.data+xml'}
- B. {'Content-Type': 'application/yang.data+yaml', 'Accept': 'application/yang.data+yaml'}
- C. {'Content-Type': 'application/restconf.data+json', 'Accept': 'application/restconf.data+json'}
- D. {'Content-Type': 'application/yang.data+utf8', 'Accept': 'application/restconf.data+utf8'}

**Answer: C**

### NEW QUESTION 161

- (Exam Topic 2)

Refer to the exhibit.

```
1  #!/bin/bash
2  apt install nginx
3  export AVAILABLE_SITES_DIR = '/etc/nginx/sites-available'
4  export ENABLED_SITES_DIR = '/etc/nginx/sites_enabled'
5  cd /opt/nginx
6  cat sites.txt | while read site;
7      do
8      cp template.conf "$AVAILABLE_SITES_DIR/$site";
9      ln -s "$AVAILABLE_SITES_DIR/$site" "$ENABLED_SITES_DIR";
10     chown www-data:www-data "$AVAILABLE_SITES_DIR/$site";
11     done
```

An engineer must configure a load balancer server. The engineer prepares a script to automate workflow by using Bash. The script install the nginx package, moves to the /opt/nginx directory, and reads the sites M We (or further processing Based on the script workflow, which process is being automated within the loop by using the information mi sites txt?

- A. creating a new Me Based on template .conf in the /etc/nginx/sites\_enabled directory for each lie in the sites txt fil
- B. and then changing the file execution permission.
- C. creating a Me per each the in sites txt with the information in template con
- D. creating a link for the previously created fil
- E. and then changing the ownership of the created files
- F. using the content of the file to create the template conf fil
- G. creating a link from the created file to the/etc/nginx/files.enable
- H. and then changing the file execution permissions.
- I. using the information in the file to create a set of empty files in the /etchginx/sites\_enabled directory and then assigning the owner of the file.

**Answer: B**

### NEW QUESTION 162

- (Exam Topic 2)

Drag and drop the code snippets from the bottom to the blanks in the code to test the API response through the Python unittest library. Not all options are used.

```
import unittest
import json
from apidogs import app

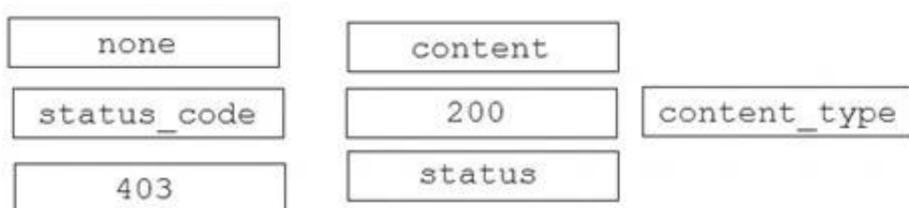
class TestsAPIDogs(unittest.TestCase):

    def setUp(self):
        self.app = app.test_client()

    # Check status response of API
    def test_status(self):
        resp =self.app.get('/dogs/all')
        status_code = response. [ ]
        self.assertEqual(status_code, [ ] )

    # Check for content type is in application/json
    def test_content_type(self):
        resp =self.app.get('/dogs/all')
        self.assertEqual(resp. [ ] , 'application/json')

    def test_item_not_exist(self):
        resp =self.app.get('/dogs?id=[ ] ')
        self.assertEqual(response.status_code,404)
```



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text Description automatically generated

**NEW QUESTION 164**

- (Exam Topic 2)

What is a capability of an agentless configuration management system?

- A. It requires managed hosts to have an interpreter for a high-level language such as Python or Ruby.
- B. It requires managed hosts to connect to a centralized host to receive updated configurations.
- C. It uses compiled languages as the basis of the domain-specific language to interface with managed hosts.
- D. It uses existing protocols to interface with the managed host.

**Answer:** D

**NEW QUESTION 169**

- (Exam Topic 2)

Which application should be used to externally access all applications deployed in the same host machine with a single public IP address and port, when each application listens on different local ports?

- A. reverse proxy
- B. load balancer
- C. DNS
- D. firewall

**Answer:** D

**NEW QUESTION 172**

- (Exam Topic 2)

A developer needs a list of clients connected to a specific device in a Meraki network. After making a REST API call, the developer receives an unfamiliar response code. Which Cisco DevNet resource should be used to identify the meaning of the response code?

- A. API documentation
- B. Sandbox
- C. Learning Labs
- D. Code Exchange

**Answer:** A

**NEW QUESTION 175**

- (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 179**

- (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	Controller level
user and programmability interaction through the use of Northbound APIs	
iterate over a list of devices	Device level
configure features with YANG models	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, application Description automatically generated with medium confidence

**NEW QUESTION 182**

- (Exam Topic 2)

Drag and drop the Dockerfile instructions from the left onto the descriptions on the right. Not at 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 185**

- (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 188**

- (Exam Topic 2)

Refer to the exhibit.

```

1 - hosts: servers
2   tasks:
3
4     - name: task1
5       systemd:
6         name: webexbot
7         state: stopped
8
9     - name: task2
10      apt:
11        name: teamsbot
12
13     - name: task3
14      apt:
15        name: webexbot
16        state: absent
17        purge: yes

```

A developer must integrate a bot with an internal communication app. The developer wants to replace the webexbot package with the teamsbot package by using Ansible and prepares a playbook. In the first two tasks, the playbook stops the webexbot and verifies that the teamsbot is installed. What is accomplished in the last task of the workflow when the developer runs the Ansible playbook?

- A. stops the webexbot service and uninstalls it and retains its configuration files
- B. installs the webexbot and retains the configuration files
- C. uninstalls the webexbot package and removes its configuration files
- D. searches whether the purge package is available in the repository and uninstalls the webexbot package

**Answer: C**

**NEW QUESTION 193**

- (Exam Topic 2)

Refer to the exhibit.

```

import requests
from requests.auth import HTTPBasicAuth
from config import url, username, password
response = requests.login(url, auth=HTTPBasicAuth (username, password), verify=False)
print response.status_code

```

The script returns an output of 401. To use the supplied URL, an HTTP GET request must be sent with an Authorization header. The header value is a Base64 encoded concatenation of the username and password. Which action must be taken to return an output of 200?

- A. Change the verify=False setting in the request to verify=True to enable HTTP Basic authentication
- B. Modify the method from LOGIN to GET and supply the username ;password value as JSON payload
- C. Verify that the username and password values imported from the configuration file are still valid.
- D. Insert an Authorization header with the values username password from the supplied configuration file.

**Answer: C**

**NEW QUESTION 197**

- (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 = 'alb2c3d4e5f6g7h8i9j0'
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 = 'alb2c3d4e5f6g7h8i9j0'
amp_api_key = 'alb2c3d4-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 = 'alb2c3d4e5f6g7h8i9j0 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 = 'alb2c3d4e5f6g7h8i9j0'
amp_api_key = 'alb2c3d4-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 199

- (Exam Topic 2)

Refer to the exhibit.

```

1 def enable_function(if_name, if_status, if_type):
2     headers = {'Accept': 'application/yang-data+json',
3               'Content-Type': 'application/yang-data+json'}
4     payload = {
5         "ietf-interfaces:interface": {
6             "name": if_name,
7             "enabled": if_status,
8             "type": if_type,
9         }
10    }
11    base_url = 'https://192.168.1.1:8443'
12    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
13
14    res = requests.put(f'{base_url}{restconf_url}={if_name}',
15                      headers=headers, json=payload,
16                      auth=('cisco', 'secret'), verify=False)

```

A network engineer wants to automate the port enable/disable process on specific Cisco switches. The engineer creates a script to send a request through RESTCONF and uses ietf as the YANG model and JSON as payload. Which command enables an interface named Loopback1?

- A. enable\_function(Loopback1, true, 'iana-if-type:softwareLoopback')
- B. enable\_function('iana-if-type:softwareLoopback', Loopback1, true,)
- C. def enable\_function('iana-if-type:softwareLoopback', Loopback1, false,)
- D. def enable\_function(Loopback1, true, 'iana-if-type:softwareLoopback')

**Answer: D**

**NEW QUESTION 203**

- (Exam Topic 2)

What are two functions of a routing table on a network device? (Choose two.)

- A. It lists entries more than two hops away.
- B. It lists the routes to a particular destination.
- C. It lists the routes to drop traffic.
- D. It lists hosts that are one hop away.
- E. It lists the static and dynamic entries.

**Answer: BE**

**NEW QUESTION 208**

- (Exam Topic 2)

Refer to the exhibit.

```

import requests
from requests.auth import HTTPBasicAuth
from dnac_config import DNAC, DNAC_PORT, DNAC_USER, DNAC_PASSWORD

def get_auth_token():
    url = 'https://sandboxnac.cisco.com/dna/system/api/v1/auth/token'
    # API Endpoint: requires POST method
    

def get_device_list():
    """
    Building out function to retrieve list of devices. Using requests.get to make a call
    to the network de-vice Endpoint
    """
    token = get_auth_token() # Get Token
    url = 'https://sandboxnac.cisco.com/api/v1/network-device'
    hdr = {'x-auth-token': token, 'content-type' : 'application/json'}
    resp = requests.get(url, headers=hdr)
    device_list = resp.json()
    print_device_list(device_list)

if __name__ == "__main__":
    get_device_list()

```

A developer creates a script to obtain a list of devices by using the Cisco DNA Center API. The remote server authorizes the request only if an authentication token is supplied in the headers. A function named get\_auth\_token() must retrieve a valid token by using HTTP Basic Authentication. Which code must be added to complete the get\_auth\_token() function?

- A. resp = requests.post(url, auth=HTTPBasicAuth(DNAC\_USER, DNAC\_PASSWORD)) token = resp.json()['Token']return token
- B. resp = requests.post(url, auth=(DNAC\_USER, DNAC\_PASSWORD)) token = resp.json ()['Token']return token
- C. resp = http.post(url, auth=HTTPBasicAuth(DNAC\_USER, DNAC\_PASSWORD)) token = resp.json()['Token']return token
- D. resp = http.post(url, auth=(DNAC\_USER, DNAC\_PASSWORD)) token = resp.json()['Token']return token

**Answer: A**

**NEW QUESTION 210**

- (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 211

- (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 213

- (Exam Topic 2)

A developer creates a web application that receives a username and password and uses them to sync the credentials to other services through HTTPS. API keys to services are part of the configuration files of the application, but the credentials to the database that stores the synchronization logs are obtained through an external vault service. What is the security issue in this scenario?

- A. Communication between the application and the services is not encrypted.
- B. The database credentials should be stored in the configuration files so that they are secured on the same server.
- C. The API keys are stored in the configuration files but should be stored in the vault service.
- D. The synchronization logs should be encrypted and not stored in a relational database.

**Answer: A**

#### NEW QUESTION 216

- (Exam Topic 2)

What is a benefit of test-driven development?

- A. early customer involvement
- B. increased code quality
- C. faster releases that have minimal features
- D. strict adherence to product requirements

**Answer: D**

#### NEW QUESTION 218

- (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 222

- (Exam Topic 2)

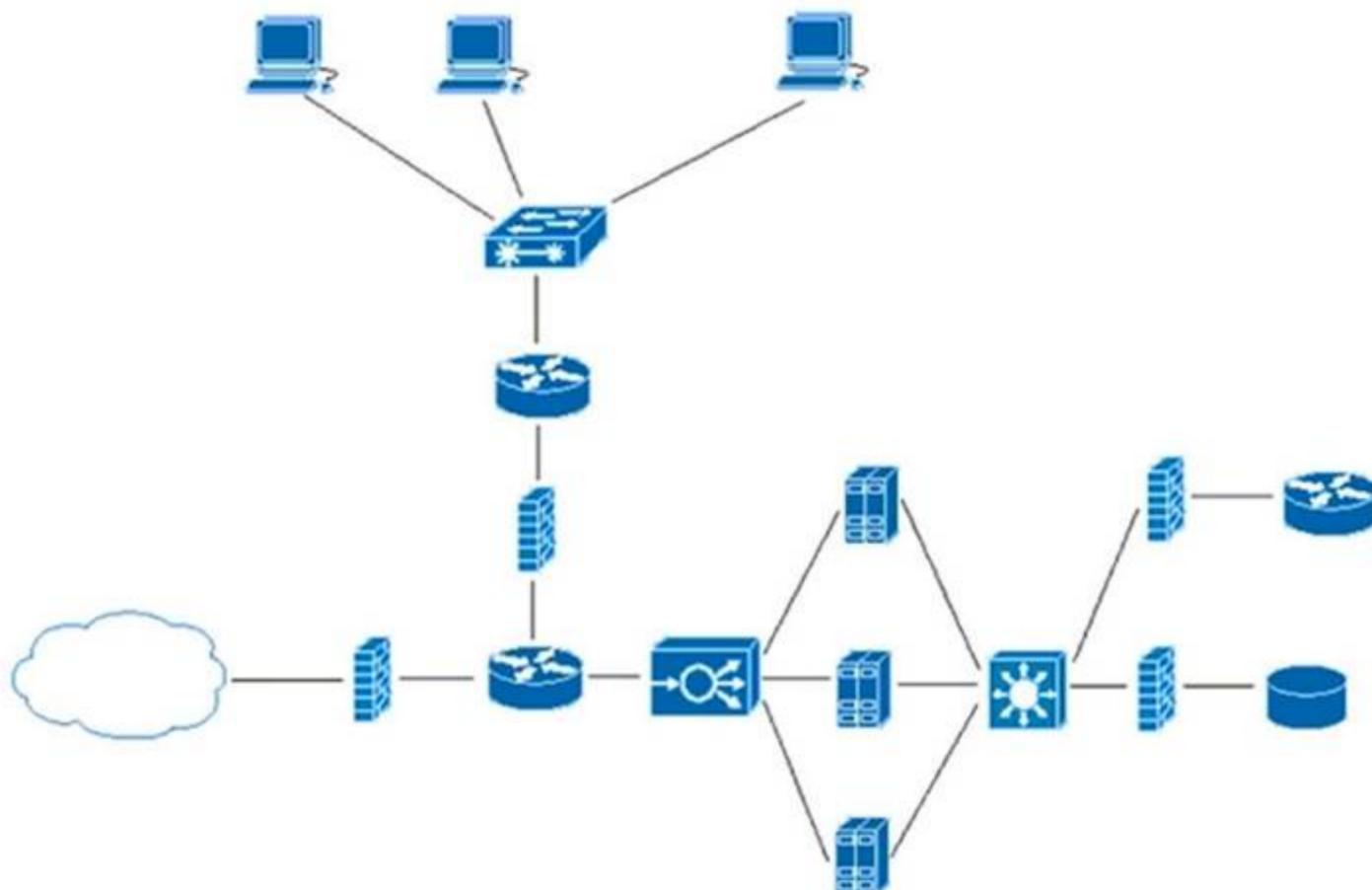
What are two benefits of model-driven programmability?

- 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 223

- (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 224

- (Exam Topic 2)

Refer to the exhibit.

```

1 #import dnac sdk
2 from dnacentersdk import DNACenterAPI
3 #connection to dnac
4
5 username = 'user1'
6 password = 'secret'
7 base_url = 'https://192.168.1.1'
8
9 dnac = DNACenterAPI(username=username, password=password, base_url=base_url,
10 # version='1.3.3', verify=False)
11 # Get list of ports on device using get all interfaces API call
12 port_list_1 = [item['portName'] for item in
13 # dnac.devices.get_all_interfaces()['response']
14 # if 'da4606c3-63ad-4ed4-8f35-6bfec7c2df04' in
15 # item['deviceId']]
16
17 # Sort list items
18 port_list_1.sort()
19 # Check the number of ports on the device
20 print(f'The list of interfaces contains {len(port_list_1)} items.')
21
22 # Output
23 # The list of interfaces contains 38 items.
24
25 # Get list of interfaces using the get interface info by device id api call
26 port_list_2 = [item['portName'] for item in
27 # dnac.devices.get_interface_info_by_id('da4606c3-63ad-4ed4-8f35-
28 # 6bfec7c2df04')['response']]
29
30 # Sort list items
31 port_list_2.sort()
32 # Check the number of ports on the device
33 print(f'The list of interfaces contains {len(port_list_2)} items.')
34
35 # Output
36 # The list of interfaces contains 54 items.

```

An engineer writes a Python script that uses two different API calls to query Cisco DNA Center for the number of interfaces on a device. The engineer notices that the two API calls produce different results. Why are fewer interfaces returned for the same device when the 'get\_all\_interfaces' API call is used?

- A. times out
- B. rate limit
- C. pagination
- D. invalid password

**Answer: C**

#### NEW QUESTION 226

- (Exam Topic 2)

A developer is creating a script to interact with a REST API service which requires basic authentication. The credentials are "devnet:391665405" and the Base64 encoding of the credentials is "GV2bmV0dXNlcjpwDaXNj=". Which payload and header combination must be used for authentication?

- A.
- ```
payload = {
    'Authorization' : 'Basic GV2bmV0dXNlcjpwDaXNj=',
    'Content-Type' : 'application/json'
}
headers= {}
```
- B.
- ```
payload = {}
headers= {
    'Authorization' : 'Basic GV2bmV0dXNlcjpwDaXNj=',
    'Content-Type' : 'application/json'
}
```
- C.
- ```
payload = {
    'Authorization' : 'Bearer GV2bmV0dXNlcjpwDaXNj=',
    'Content-Type' : 'application/json'
}
headers= {}
```
- D.
- ```
payload = {}
headers= {
    'Authorization' : 'Bearer GV2bmV0dXNlcjpwDaXNj=',
    'Content-Type' : 'application/json'
}
```

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

**Answer: B**

#### Explanation:

<https://developer.cisco.com/docs/epnm/#!/how-to-authenticate/authorization>

#### NEW QUESTION 231

- (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 236

- (Exam Topic 2)

In the test-driven development model, what is changed after a test fails?

- A. test
- B. schedule
- C. project requirements
- D. code

**Answer:** D

#### Explanation:

Reference:

<https://www.guru99.com/test-driven-development.html#:~:text=In%20simple%20terms%2C%20test%20cases,c>

#### NEW QUESTION 238

- (Exam Topic 2)

Refer to the exhibit.

```
# base image
FROM alpine

# Install python and pip
RUN apk add --update py2-pip

# Install python modules needed by the python app
COPY requirements.txt /usr/src/app/
RUN pip install --no-cache-dir -r /usr/src/app/requirements.txt

#copy local files for the app to run
COPY app.py /usr/src/app/
COPY templates/index.html /usr/src/app/templates/

EXPOSE 8080

#run the application
CMD ["python", "/usr/src/app/app.py"]
```

Which function does the EXPOSE line perform when building an image from this Dockerfile?

- A. Local port 8080 of the container that launched with this docker image is accessible from co-hosted containers and external clients.
- B. Local port 8080 is not reachable at all because no IP address is specified along with the EXPOSE command of the Dockerfile.
- C. Local port 8080 is accessible from other containers running on the same docker host as the container that launched with this docker image.
- D. Local port 8080 of the container that launched with this docker image is accessible to external clients.

**Answer: C**

**Explanation:**

By default, the EXPOSE instruction does not expose the container's ports to be accessible from the host. In other words, it only makes the stated ports available for inter-container interaction.

Whereas publishing a port using either -P or -p exposes it, exposing a port using EXPOSE or --expose does not publish it.

So, while exposed ports can only be accessed internally, published ports can be accessible by external containers and services.

<https://www.whitesourcesoftware.com/free-developer-tools/blog/docker-expose-port/>

**NEW QUESTION 240**

- (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 242**

- (Exam Topic 2)

Refer to the exhibit.

A developer needs to automatically retrieve all of the messages of a Webex room with the roomId of HY2I2Y292cGFyazovL3Vz397748444YjU5NjAtNTk0Zj0xMWVhLTk0Mj". Using the Webex API documentation shown, drag and drop the code snippets from below onto the code to complete the Python script to list all of the messages in the room. Not all options are used.

```
import requests

webex_token = "NDAL0GV...f0-4434-a696-B4fee4047e0a"

room_id = "Y2IzY292cGFyazovL3Vz397748444YjU5NjAtNTk0Zj0xMWVhLTk0Mj"

url = "https://webexapis.com/v1/" + " " + " = " + " "

payload = {}
headers = {
    'Authorization': 'Bearer ' + " "
}

response = requests.request("GET", url, headers=headers, data = payload)

print(response.text.encode('utf8'))
```

webex\_token    room    room\_id

messages?    roomId    messages

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface Description automatically generated with medium confidence

**NEW QUESTION 247**

- (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 248**

- (Exam Topic 2)

Which platform is used to programmatically create a space and invite users for collaboration?

- A. Cisco Intersight
- B. Cisco Finesse
- C. Cisco Webex
- D. Cisco UCM

Answer: C

**NEW QUESTION 249**

- (Exam Topic 2)

**class Native.Interface.FastEthernet**

Bases: Entity

Class Hierarchy: Native Interface FastEthernet

This class represents configuration data.

FastEthernet IEEE 802.3

<p><b>name(key)</b></p> <p>type: str</p> <p>pattern: (([0-9])/([0-9])/([1-3][0-9])[4[0-8][0-9])\[0-9]+)?</p>	<p><b>flowcontrol</b></p> <p>Configure flow operation</p> <p>type: Flowcontrol</p>
<p><b>description</b></p> <p>Interface specific description</p> <p>type: str</p> <p>pattern: *</p>	<p><b>isis</b></p> <p>IS-IS commands</p> <p>type: Isis</p>
	<p><b>keepalive</b></p> <p>Enable keepalive</p> <p>type: bool</p>
	<p><b>keepalive_settings</b></p> <p>type: KeepaliveSettings</p>

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'
prctl = 'ssh'
user = 'developer'
psw = 'P@s$W0rD'
port = 830
provider = nc(address=ip, port=port, username=user, password=psw, protocol=prctl)
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 252**

- (Exam Topic 2)

Which advantage does the agile process offer compared to waterfall software development?

- A. to view the full scope of end-to-end work
- B. to have each phase end before the next begins
- C. to fix any issues at the end of the development cycle
- D. to add or update features with incremental delivery

**Answer: D**

**NEW QUESTION 254**

- (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 258**

- (Exam Topic 2)

Several teams at a company are developing a new CRM solution to track customer interactions with a goal of improving customer satisfaction and driving higher revenue. The proposed solution contains these components:

- MySQL database that stores data about customers
- HTML5 and JavaScript UI that runs on Apache
- REST API written in Python

What are two advantages of applying the MVC design pattern to the development of the solution? (Choose two.)

- A. to enable multiple views of the same data to be presented to different groups of users
- B. to provide separation between the view and the model by ensuring that all logic is separated out into the controller
- C. to ensure data consistency, which requires that changes to the view are also made to the model
- D. to ensure that only one instance of the data model can be created
- E. to provide only a single view of the data to ensure consistency

**Answer: BD**

**NEW QUESTION 263**

- (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 268**

- (Exam Topic 2)

Refer to the exhibit.

<pre>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;           }         }       }     }   } }</pre>	<pre>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";       }     }   } }</pre>
---	--

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 269

- (Exam Topic 2)

Refer to the exhibit.

```

$ sh script.sh
Traceback (most recent call last):
  File "script.py", line 2, in <module>
    api = WebexTeamsAPI()
  File "/opt/.venv/pyvenv35/lib/python3.5/site-packages/webexsdk/api/__init__.py", line 112,
in __init__
    "You must provide a Webex Teams access token to interact with "
webexsdk.exceptions.AccessTokenError: You must provide a Webex Teams access token to interact
with the Webex Teams APIs, either via a WEBEX_TEAMS_ACCESS_TOKEN environment variable or via the
access_token argument.
$
$
$ cat script.sh
#!/bin/bash

python script.py
$

```

Which line must be included in the Bash script for the Python code to succeed?

- A. define WEBEX\_TEAMS\_ACCESS\_TOKEN=your\_access\_token\_here
- B. export WEBEX\_TEAMS\_ACCESS\_TOKEN=your\_access\_token\_here
- C. set WEBEX\_TEAMS\_ACCESS\_TOKEN=your\_access\_token\_here
- D. WEBEX\_TEAMS\_ACCESS\_TOKEN=your\_access\_token\_here

**Answer: B**

#### NEW QUESTION 271

- (Exam Topic 2)

What is a benefit of organizing into modules?

- A. improves collaboration of the development team

- B. makes it easier to deal with large and complex systems
- C. enables the code to be broken down into layers
- D. enables the inclusion of more programming languages in the code

**Answer:** B

**Explanation:**

From Wikipedia ([https://en.wikipedia.org/wiki/Modular\\_programming](https://en.wikipedia.org/wiki/Modular_programming)) "Modular programming is closely related to structured programming and object-oriented programming, all having the same goal of facilitating the construction of large software programs and systems by decomposition into smaller pieces."

**NEW QUESTION 275**

- (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 279**

- (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 283**

- (Exam Topic 2)

A file that already exists in a local repository is updated. Which command must be executed to ensure that the changes in the file are included in the next Git commit?

- A. git update
- B. git merge
- C. git add
- D. git rebase

**Answer:** A

**NEW QUESTION 285**

- (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 289**

- (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/Y2lzY29zcGFya29v371508156INISVAvOTJmM2RkOWEiNjc1ZC00YTQxLThjNDExMmFiZGY4OWY0NGY0QjExNzJkNmYwLTJiYzNmMTEiOS1iOWI3LWNmMjg3MTJhYTgzNw"

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 291**

- (Exam Topic 1)

Refer to the exhibit.

The screenshot shows an API documentation page for the 'List Messages' endpoint. On the left, the documentation includes a description, a REST endpoint `GET /v1/messages`, and a list of query parameters: `roomId` (string, required), `mentionedPeople` (array), `before` (string), `beforeMessage` (string), and `max` (number, default 50). On the right, an API client interface shows the endpoint `/v1/messages` with a 'Try it' button. The 'Header' section has 'Authorization' set to 'Bearer' with a token field. The 'Query Parameters' section has fields for `roomId`, `mentionedPeople`, `before`, `beforeMessage`, and `max`, each with an example value. A 'Run' button is at the bottom right.

```
bash-3.2$ curl -H "Content-Type: application/json" -H "Authorization: Fj2zzzykEa091ic9GK2j8LtE1HklHkLH6oRHPQdw1Pat60i7ndtHHnWzL2b5pqMgl4Kk_B9EI59isacLy7-NarA02n9H-tGgt-SxQ39iDejgcs" -i -X POST -d "{ \"roomId\": \"Y2geK53sjEknosrC7SwQ5ZGL99pHgiuScB7DfNvUstr8Xx4wDKLiPORcEkryAnM3QmK9LQZsP0G4\", \"text\": \"test2\" }" https://api.ciscospark.com/v1/messages

HTTP/1.1 401 Unauthorized
Via: 1.1 linkerd
TrackingID: ROUTER_5E0FDC8C-EB6F-01BB-00EF-806BF1BD00EF
Date: Sat, 04 Jan 2020 00:30:04 GMT
Server: Redacted
Content-Length: 267
Content-Type: application/json
Strict-Transport-Security: max-age=63072000; includeSubDomains; preload

{"message": "The request requires a valid access token set in the Authorization request header.", "errors": [{"description": "The request requires a valid access token set in the Authorization request header."}], "trackingId": "ROUTER_5E0FDC8C-EB6F-01BB-00EF-806BF1BD00EF"}

bash-3.2$
```

A developer is troubleshooting an API with the given API with the given API documentation and cURL command. What is the cause of this problem?

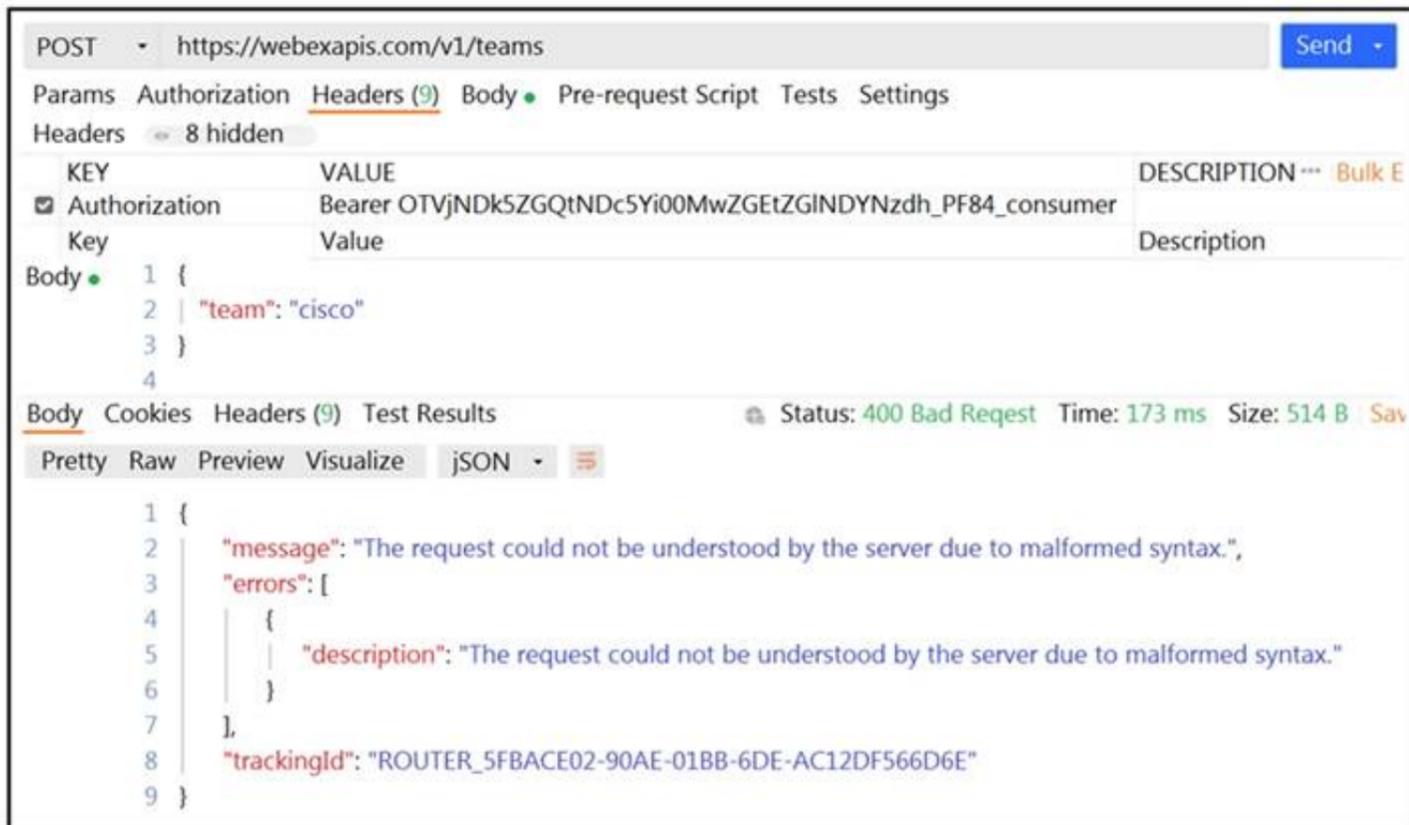
- A. The user is not allowed to post messages from their account
- B. The request body is missing or incomplete
- C. The API token specified is expired
- D. The authorization header is missing or incomplete

**Answer: C**

**NEW QUESTION 293**

- (Exam Topic 2)

Refer to the exhibit.



POST - https://webexapis.com/v1/teams

Params Authorization Headers (9) Body Pre-request Script Tests Settings

Headers 8 hidden

| KEY           | VALUE                                                     | DESCRIPTION |
|---------------|-----------------------------------------------------------|-------------|
| Authorization | Bearer OTVjNDk5ZGQtNDc5Yi00MwZGEtZGINDYNzdh_PF84_consumer |             |

Body

```
1 {
2   "team": "cisco"
3 }
4
```

Body Cookies Headers (9) Test Results Status: 400 Bad Request Time: 173 ms Size: 514 B

Pretty Raw Preview Visualize JSON

```
1 {
2   "message": "The request could not be understood by the server due to malformed syntax.",
3   "errors": [
4     {
5       "description": "The request could not be understood by the server due to malformed syntax."
6     }
7   ],
8   "trackingId": "ROUTER_5FBACE02-90AE-01BB-6DE-AC12DF566D6E"
9 }
```

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 298

- (Exam Topic 1)

Refer to the exhibit.

For CLI commands that support XML, the `clid()` method returns JSON output. An exception is thrown when XML is not used. Executes CLI commands. Takes CLI command string and returns show command output in a JSON form.

*Note: The "clid" API can be useful when searching the output of show commands using JSON tools as shown in the example.*

#### PYTHON

```
Example:
>>> import json
>>> from cli import *
>>> jversion = json.loads(clid("show
version"))
>>> jversion['bios_ver_str']
'08.06'
```

Arguments:

- `cmd`: Single CLI command or a batch of CLI commands. Delimiter for multiple CLI commands is a space followed by a semicolon. Configuration commands must be in a fully qualified form.

Returns:

- string: JSON-formatted output of show commands.

```
>>> from cli import *
>>> import json

>>>
>>> cli('configure terminal ; interface loopback 5 ; no shut')
''
>>> intflist=json.loads(clid('show interface brief'))
>>> i=0
>>> while i < len (intflist['TABLE_interface']['ROW_interface']):
...     intf=intflist['TABLE_interface']['ROW_interface'][i]
...     i=i+1
...     if intf['state'] == 'up':
...         print intf['interface']
```

The python interpreter and the Cisco python SDK are available by default in the Cisco NX-OS software. The SDK documentation shows how the cild() API can be used when working with working with JSON and XML. What are two effect of running the script? (Choose two.)

- A. configure interlace loopback 5
- B. issue shutdown on interface loopback 5
- C. show only the interfaces In the up status
- D. show only the interfaces in admin shut status
- E. show details for the TABLE interface

**Answer:** AC

**Explanation:**

Reference:

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/programmability/guide/b\\_Cisco\\_](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/programmability/guide/b_Cisco_)

#### NEW QUESTION 299

- (Exam Topic 1)

Which two statements describe the traits of an asynchronous API call? (Choose two.)

- A. The order in which API calls return can be guaranteed
- B. A call to an API does not block the code, but rather it allows application processing to continue
- C. The end user can experience latency or performance lag while waiting for the API call to return
- D. Code execution blocks or waits for the call to an API to return.
- E. A callback function typically is used to process the response from an API call

**Answer:** BE

#### NEW QUESTION 300

- (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 305

- (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 309

- (Exam Topic 1)

Which device is a system that monitors and controls incoming and outgoing network traffic based on predetermined security rules?

- A. Switch
- B. Router

- C. Firewall
- D. Load balancer

**Answer: C**

**NEW QUESTION 313**

- (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 316**

- (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 317**

- (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 320**

- (Exam Topic 1)

Refer to the exhibit.

```

1      ---
2      - hosts: {{ router }}
3        gather_facts: true
4        connection: local
5
6      tasks:
7      - ios_command
8        commands:
9        - show run
10       provider: "{{ router_credentials }}"
11       register: config
12
13     - copy:
14       content: "{{ config.stdout[0] }}"
15       dest: "etc/ansible/configs/command_{{ router_hostname }}.txt
16     ...

```

What is the effect of this Ansible playbook on an IOS router?

- A. A new running configuration is pushed to the IOS router.
- B. The current running configuration of the IOS router is backed up.
- C. The start-up configuration of the IOS router is copied to a local folder.
- D. A new start-up configuration is copied to the IOS router.

**Answer: B**

**NEW QUESTION 324**

- (Exam Topic 1)

A small company has 5 servers and 50 clients. What are two reasons an engineer should split this network into separate client and server subnets? (Choose two)

- A. Internet access to the servers will be denied on the router.
- B. A router will limit the traffic types between the clients and servers.
- C. Subnets will split domains to limit failures.
- D. A router will bridge the traffic between clients and servers.
- E. Subnets provide more IP address space for clients and servers.

**Answer: AC**

**NEW QUESTION 328**

- (Exam Topic 1)

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

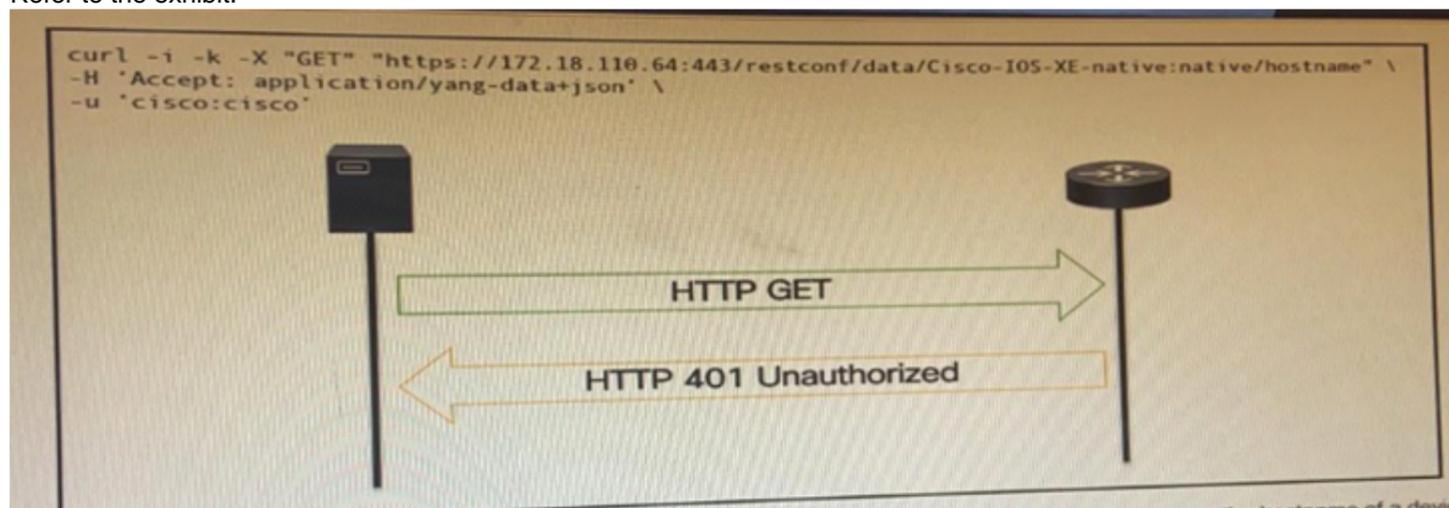
- A. to drop traffic that is destined to the default gateway
- B. to drop traffic that is not destined to the default gateway
- C. to forward traffic to the same subnet
- D. to forward traffic to different subnets

**Answer: D**

**NEW QUESTION 330**

- (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 331**

- (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 334**

- (Exam Topic 1)

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



```
[
  {
    "type": "fruit",
    "items": [
      {
        "color": "green",
        "items": [
          "kiwi",
          "grape"
        ]
      },
      {
        "color": "red",
        "items": [
          "strawberry",
          "apple"
        ]
      }
    ]
  },
  {
    "type": "vegs",
    "items": [
      {
        "color": "green",
        "items": [
          "lettuce"
        ]
      },
      {
        "color": "red",
        "items": [
          "pepper"
        ]
      }
    ]
  }
]
```

A REST API return this JSON output for a GET HTTP request, Which has assigned to a variable called "vegetables" Using python, which output is the result of this command?

```
print(filter(lambda l: l['type'] == 'fruit', vegetables)[0]['items'][0]['items'][0])
```

- A. Lettuce
- B. Kiwi
- C. ['kiwi', 'grape']
- D. {'color': 'green', 'items': ['kiwi', 'grape']}

**Answer: B**

**NEW QUESTION 344**

- (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 348**

- (Exam Topic 1)

Drag and drop the element of the Finesse API on the left onto the description of its functionality on the right.

|            |                                                                    |
|------------|--------------------------------------------------------------------|
| User       | Represents a skill group in Unified CCE.                           |
| Dialog     | Represents the current state of the system.                        |
| Media      | Represents an agent, supervisor or administrator.                  |
| Queue      | Represents a group of users.                                       |
| Team       | Represents a call and the participants if the media type is voice. |
| SystemInfo | Sends client-side logging to the Finesse Server.                   |
| ClientLogs | Represents a user's state in a non-voice Media Routing Domain.     |

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

1 - D, 2 - F, 3 - A, 4 - E, 5 - B, 6 - G, 7 - C

**NEW QUESTION 351**

- (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 356**

- (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 360**

- (Exam Topic 1)

Refer to 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 365**

- (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 368**

- (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 371**

- (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 374**

- (Exam Topic 1)

Refer to the exhibit.

```
def process_devices(dnac, token):
    url = "https://{}/api/v1/network-device".format(dnac['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"], " ", item["managementIpAddress"])
```

What is the function of the python script?

- A. Count and print the total number of available devices.
- B. Iterate over a list of network devices and write all device names and management IP addresses to an output file.
- C. Iterate over a list of network devices and write all device type and associated management IP address.
- D. For each device that is returned, display the device and, for each device, print the device name and management IP address.
- E. Loop through the returned list of network devices and, for each device, print the device name management IP address.

**Answer: E**

**NEW QUESTION 379**

- (Exam Topic 1)

Which two statements are true about Cisco UCS manager, Cisco Intersight APIs? (Choose two.)

- A. Cisco Intersight API interactions can be encoded in XML or JSON and require an APIs key in the HTTP header for authentication.
- B. USC Director API interactions can be XML- or JSON-encoded and require an APLs key in the HTTP header for authentication.
- C. UCS manager API interactions are XML-encoded and require a cookie in the method for authentication.
- D. Cisco Intersight uses XML to encoded API interactions and requires an API key pair for authentication.
- E. UCS manager uses JSON to encode API interactions and utilizes Base64-encoded credentials in the HTTP header for authentication.

**Answer: BC**

**Explanation:**

Reference:

[https://www.cisco.com/c/en/us/td/docs/unified\\_computing/ucs/ucs-director/rest-api-getting-started-guide/6-5/cis](https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/ucs-director/rest-api-getting-started-guide/6-5/cis)  
[https://www.cisco.com/c/en/us/td/docs/unified\\_computing/ucs/sw/api/b\\_ucs\\_api\\_book.pdf](https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/sw/api/b_ucs_api_book.pdf)

**NEW QUESTION 383**

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

**NEW QUESTION 384**

- (Exam Topic 1)

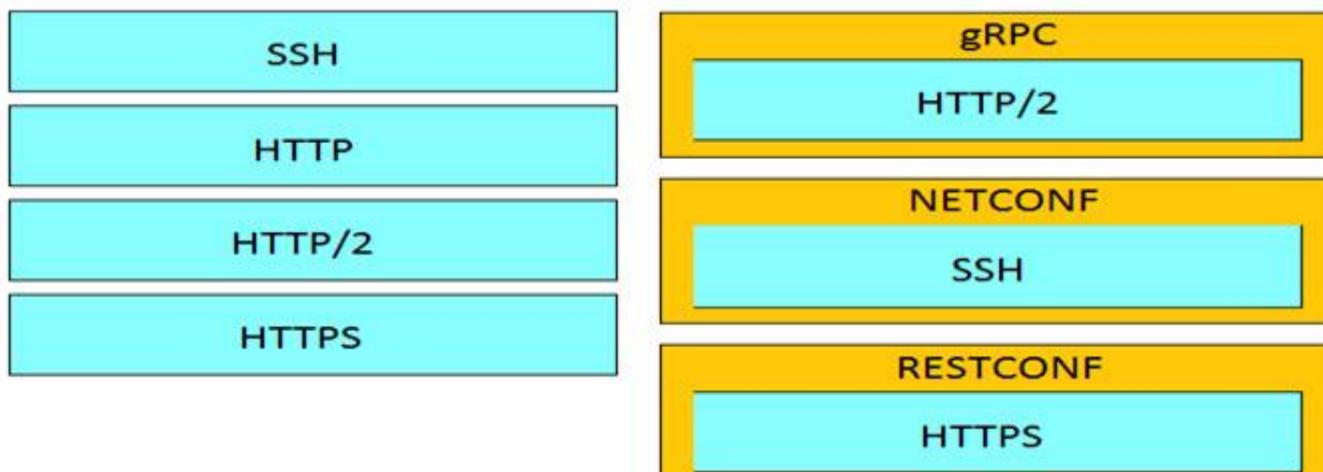
Drag and drop the network automation interfaces from the left onto the transport protocols that they support on the right. Not all options are used.

SSH	gRPC
HTTP	NETCONF
HTTP/2	RESTCONF
HTTPS	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



#### NEW QUESTION 386

- (Exam Topic 1)

Which platform has an API that be used to obtain a list of vulnerable software on user devices?

- A. Cisco Umbrella
- B. Cisco Firepower
- C. Cisco Identity Services Engine
- D. Cisco Advanced Malware Protection

Answer: D

#### NEW QUESTION 390

- (Exam Topic 1)

In DNS, which record specifies an alias that refers to another name that ultimately resolves to an IP address?

- A. AAA
- B. SOA
- C. NS
- D. CNAME

Answer: D

Explanation:

Reference: <https://ns1.com/resources/dns-types-records-servers-and-queries>

#### NEW QUESTION 395

- (Exam Topic 1)

Which network device monitors incoming and outgoing traffic and decides whether to allow or block specific traffic based on a defined set of rules?

- A. switch
- B. load balancer
- C. reverse proxy
- D. firewall

Answer: D

#### NEW QUESTION 399

- (Exam Topic 1)

Refer to the exhibit.

**URL:** https://<ASA\_IP>/api/access/global/rules  
**Method:** POST  
**Payload:**

```
{
  "destinationAddress": {
    "kind": "IPv4Address",
    "value": "10.1.1.1"
  },
  "remarks": [ ],
  "active": true
  "permit": true,
  "sourceAddress": {
    "kind": "IPv4Address",
    "value": "192.168.1.1"
  }
}
```

**Response Status Code:** 400 Bad Request

```
{
  "messages": [
    {
      "level": "Error",
      "code": "JSON-PARSE-ERROR",
      "details": "Unexpected character ('\"' (code 34)):"
    }
  ]
}
```

What caused the error in this API request?

- A. The API resource does not support the POST operation
- B. The API resource does not support JSON format payloads.
- C. The submitted JSON payload includes a field that is not supported by the API resource.
- D. The submitted JSON payload has a formatting issue

**Answer:** D

**NEW QUESTION 402**

- (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 404**

- (Exam Topic 1)

Which two statement describe the role of an artifact repository in a CI/CD pipeline? (Choose two.)

- A. An artifact repository allows to compare and merge changes in the source code of files involved in a build process.
- B. An artifact repository is needed only for CI/CD pipeline executed on a public cloud infrastructure.
- C. An artifact repository provides traceability, search, and management of binary files.
- D. An artifact repository is needed only for managing open source software.
- E. An artifact repository stores files needed and generated during the build process.

**Answer:** CE

**NEW QUESTION 408**

- (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 development the test requirements.
- E. Tests are created when code is ready for release.

**Answer:** BC

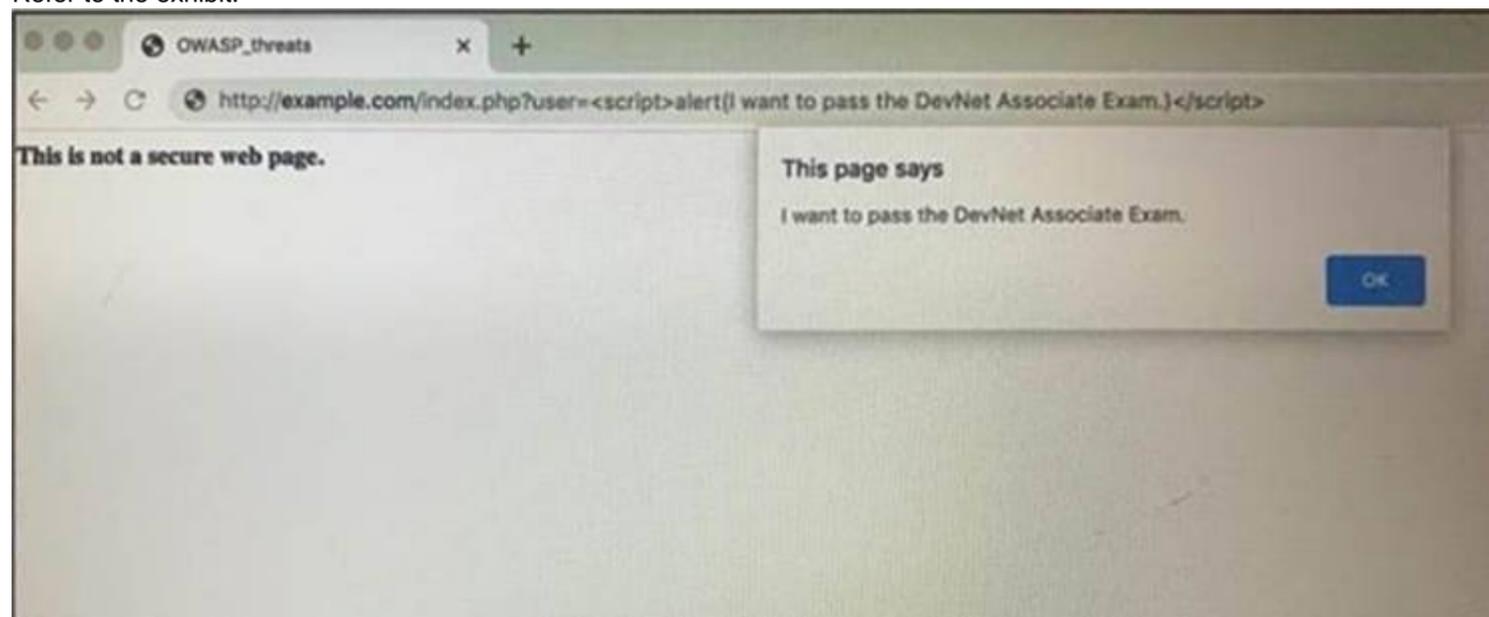
**Explanation:**

[https://www.tutorialspoint.com/software\\_testing\\_dictionary/release\\_candidate.htm](https://www.tutorialspoint.com/software_testing_dictionary/release_candidate.htm)

**NEW QUESTION 410**

- (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 412**

- (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 interactions
- 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](https://www.cisco.com/c/dam/global/en_hk/solutions/collaboration/files/agile_product_development.pdf)

**NEW QUESTION 416**

- (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 420**

- (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 421**

- (Exam Topic 1)

Which status code is used by a REST API to indicate that the submitted payload is incorrect?

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

Answer: A

**Explanation:**

Reference:

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

**NEW QUESTION 423**

- (Exam Topic 1)

Refer to the exhibit.

### List Rooms

List rooms.  
 The `title` of the room for 1:1 rooms will be the display name of the other person.  
 By default, lists rooms to which the authenticated user belongs.  
 Long result sets will be split into **pages**.

**GET** `/v1/rooms`

#### Query Parameters

Name	Description
<code>teamId</code> string	List rooms associated with a team, by ID.
<code>type</code> string	List rooms by type. <i>Possible values: direct, group</i>
<code>sortBy</code> string	Sort results. <i>Possible values: id, lastactivity, created</i>
<code>max</code> number	Limit the maximum number of rooms in the response.  Default: <code>100</code>

Fill in the blank to complete the query parameter and value so that the result set is returned in reverse chronological order (most recent first) based on when message were entered.

HTTP GET `/v1/rooms` \_\_\_\_\_

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

HTTP GET `/v1/rooms` `?sortBy=lastactivity`

**NEW QUESTION 428**

- (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 433**

- (Exam Topic 1)

An application calls a REST API and expects a result set of more than 550 records, but each time the call is made, only 25 are returned. Which feature limits the amount of data that is returned by the API?

- A. pagination
- B. payload limit
- C. rate limiting
- D. service timeouts

**Answer:** A

**NEW QUESTION 434**

- (Exam Topic 1)

Which way should be used to safely the API keys?

- A. In an environment variable unique to the system database
- B. Encrypted in a configuration file that is separate from the code
- C. Encrypted in the code in a function
- D. Plain text in the code as a constant

**Answer:** B

**NEW QUESTION 435**

- (Exam Topic 1)

Which type of threat occur when an attacker can send hostile data to an interpreter within an application?

- A. Cross-site scripting
- B. Sensitive data exposure
- C. Broken authentication
- D. Injection

**Answer:** D

**Explanation:**

Reference: [https://owasp.org/www-project-top-ten/OWASP\\_Top\\_Ten\\_2017/Top\\_10-2017\\_A1-Injection](https://owasp.org/www-project-top-ten/OWASP_Top_Ten_2017/Top_10-2017_A1-Injection)

**NEW QUESTION 437**

- (Exam Topic 1)

Drag and drop elements of the RESTCONF protocol stack from the left onto the correct description on the right. Not all elements on the left are used.

<data>	content
XML or JSON	operations
SSH	transport
<rpc>, <rpc-reply>	
GET, POST, PUT, PATCH, DELETE	
HTTPS	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

1 – B, 2 – E, 3 - F

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/169/b\\_169\\_programmability\\_cg/restconf](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/169/b_169_programmability_cg/restconf)

**NEW QUESTION 442**

- (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 444**

- (Exam Topic 1)

Which two statements describe the advantages of using a version control system? (Choose two.)

- A. It allows for branching and merging so that different tasks are worked on in isolation before they are merged into a feature or master branch.
- B. It allows multiple engineers to work against the same code and configuration files and manage differences and conflicts.
- C. It provides tooling to automate application builds and infrastructure provisioning.
- D. It allows developers to write effective unit tests.
- E. It provides a system to track User Stories and allocate to backlogs.

**Answer:** AB

**NEW QUESTION 445**

- (Exam Topic 1)

What is the purpose of a firewall in application deployment?

- A. adds TLS support to an application that does not support it natively
- B. forwards traffic to a pool of instances of the application
- C. provides translation for an application's hostname to its IP address
- D. limits traffic to only ports required by the application

**Answer:** D

**NEW QUESTION 449**

- (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	<b>Public Cloud</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	
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		<b>Private Cloud</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>
shared compute platform that is offered over the Internet		<b>Hybrid Cloud</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>
	<b>Edge Computing</b> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

1 – B, 2 – E, 3 – C, 4 – D, 5 – A

**NEW QUESTION 454**

- (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 459**

- (Exam Topic 1)

Drag and Drop the Bash commands from the left onto the correct actions on the right.

cd~	list files in directory sorted by edited date descending
cd/	create directory
ls -l	copy file
ls -t	change directory to user \$HOME
cp	create environment variable
cp -r	change directory to file system root
mv	move file
touch	create file
mkdir	copy directory
export	list files in directory with details

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

**NEW QUESTION 464**

- (Exam Topic 1)

Drag and drop the Docker file instructions from the onto correct 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:**

1 - E, 2 - B, 3 - D, 4 - A

**NEW QUESTION 467**

- (Exam Topic 1)

What is the Git command to delete a local branch named "experiment" without a warning?

- A. git branch -n experiment
- B. git branch -rm experiment
- C. git branch -f experiment
- D. git branch -D experiment

**Answer:** D

**Explanation:**

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

**NEW QUESTION 472**

- (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 477**

- (Exam Topic 1)

Fill in the blanks to complete the python script to request a service ticket using the APIC-EM rest API for the user "devnetuser".

```
import requests
import json
controller = 'devnetapi.cisco.com/sandbox/apic_em'
url = "https://" + controller + "/api/va/ticket"
payload = { 'username': ' ', 'password': '371274739' }
header = { 'Content-type': 'application/json' }
response =  post(url, data=json.dumps(payload), \
headers= , verify=False)
r_json = response.json()
print(r_json)
ticket = r_json["response"]["serviceTicket"]
print(ticket)
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

```
import requests
import json
controller = 'devnetapi.cisco.com/sandbox/apic_em'
url = "https://" + controller + "/api/va/ticket"
payload = { 'username': 'devnetuser', 'password': '371387657' }
header = { 'Content-type': 'application/json' }
response = requests.post(url, data=json.dumps(payload), \
headers=header, verify=False)
r_json = response.json()
print(r_json)
ticket = r_json["response"]["serviceTicket"]
print(ticket)
```

Reference: <https://developer.cisco.com/docs/apic-em/#!hello-world>

**NEW QUESTION 478**

- (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 480**

- (Exam Topic 1)

What is the benefit of edge computing?

- A. It reduces network latency by moving processing closer to the data source.
- B. It simplifies security as devices and processing are brought closer together
- C. It removes the need for centralized data processing.
- D. It reduces data velocity from devices or other data sources.

**Answer:** A

**Explanation:**

Reference: <https://blogs.cisco.com/networking/time-to-get-serious-about-edge-computing>

**NEW QUESTION 481**

- (Exam Topic 1)

Which platform is run directly using a hypervisor?

- A. Virtual
- B. Bare metal systems
- C. Containers
- D. Applications

**Answer:** C

**NEW QUESTION 483**

- (Exam Topic 1)

Which mechanism is used to consume a RESTful API design when large amounts of data are returned?

- A. Data sets
- B. Scrolling
- C. Blobs
- D. Pagination

**Answer:** D

**Explanation:**

Reference: <https://nordicapis.com/everything-you-need-to-know-about-api-pagination/>

**NEW QUESTION 485**

- (Exam Topic 1)

Drag and drop the network component names from the left onto the correct descriptions on the right. Not all options are used.

DNS server	contains a database of public IP addresses and their associated hostnames and often resolves or translates those names to IP addresses, as requested
firewall	enforces a set of rules about which data packets are allowed to enter or leave a network
reverse proxy	distributes network and application traffic across different servers
load balancer	retrieves resources on behalf of a client from one or more servers, then returns resources to the client, thus appearing as if they originated from the service itself
NAT gateway	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

1 – A, 2 – B, 3 – D, 4 – C

**NEW QUESTION 486**

- (Exam Topic 1)

What is the first development task in test-driven development?

- A. Write code that implements a desired function.
- B. Write a failing test case for a desired function.
- C. Write a passing test case for existing code.
- D. Reverse engineer the code for a desired function.

**Answer:** B

**Explanation:**

Reference:

<https://technologyconversations.com/2013/12/20/test-driven-development-tdd-example-walkthrough/>

**NEW QUESTION 490**

- (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 494**

- (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 497**

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

**NEW QUESTION 500**

- (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 502**

- (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 phones 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 505**

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