

# Cisco

## Exam Questions 200-901

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



### NEW QUESTION 1

- (Exam Topic 2)

Into which type of Python data structure should common data formats be parsed?

- A. sequence
- B. set
- C. dictionary
- D. list

**Answer: C**

### NEW QUESTION 2

- (Exam Topic 2)

Refer to the exhibit.

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

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

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

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

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

**Answer: D**

### NEW QUESTION 3

- (Exam Topic 2)

Which protocol runs over TCP port 23?

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

**Answer: D**

### NEW QUESTION 4

- (Exam Topic 2)

Access to the management interface of devices must be restricted by using SSH and HTTPS. Which two ports must be included in the ACLs for the protocols to work? (Choose two.)

- A. 22
- B. 23
- C. 80
- D. 443
- E. 880

**Answer: AD**

### NEW QUESTION 5

- (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 = 'l0gln_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 6**

- (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 7**

- (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://sandboxdnac.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://sandboxdnac.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 8**

- (Exam Topic 2)

Refer to the exhibit.

```
SDK Documentation:

Class: Devices

Device List: get_device_list()
Get device: get_device_by_id(id)
Delete device: delete_device_by_id(id)
Device status: inventoryStatusDetail
Device Parameters:
    id
    upTime
    type
```

A Python script must delete all Cisco Catayst 9300 Series switches that have an uptime that is greater than 90 days The script must also query for the status of all the other devices Drag and drop the code from the bottom onto the bottom box the code is missing to complete the script Not at options are used

**Answer Area**

```

from dnacentersdk import DNACenterAPI

device_type = "Cisco Catalyst 9300 Switch"
api_session = DNACenterAPI(
    base_url="https://sandboxdnac.cisco.com",
    username="user",password="password"
)

devices = 

for device in devices:
    if int(device.upTime.split()[0]) > 90:
        if device.type == device_type:
            output = 
            print(output)

        else:
            selected_device = 
            output = 
            print (output)

```

- 
- 
- 
- 
- 

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**  
 Table Description automatically generated

**NEW QUESTION 9**

- (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 10**

- (Exam Topic 2)

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

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

**Answer:** B

**NEW QUESTION 10**

- (Exam Topic 2)

A developer creates a script that configured multiple Cisco IOS XE devices in a corporate infrastructure. The internal test environment is unavailable, and no maintenance window is available to test on a low-priority production environment. Which resource is used to test the code before it is applied to the production environment?

- A. Code Exchange
- B. Cisco DevNet Learning Labs
- C. Cisco DevNet Sandbox
- D. Cisco Support

**Answer:** C

**Explanation:**

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

**NEW QUESTION 11**

- (Exam Topic 2)

An engineer must configure Cisco Nexus devices and wants to automate this workflow. The engineer enables the Cisco NX-OS REST API to configure the devices by using an Ansible playbook. Before running the code, which resource must be used to verify that the code works correctly?

- A. Cisco NX-OS SDK
- B. Cisco Learning Labs
- C. Cisco Code Exchange
- D. Cisco Modeling Labs

**Answer: A**

**NEW QUESTION 12**

- (Exam Topic 2)

What is a benefit of model-driven programmability?

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

**Answer: D**

**NEW QUESTION 14**

- (Exam Topic 2)

Which HTTP response status code means "Forbidden"?

- A. 500
- B. 401
- C. 403
- D. 502

**Answer: C**

**Explanation:**

Reference: <https://developer.mozilla.org/en-US/docs/Web/HTTP/Status/403>

**NEW QUESTION 19**

- (Exam Topic 2)

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

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

**Answer: B**

**Explanation:**

Reference:

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

**NEW QUESTION 20**

- (Exam Topic 2)

Refer to the exhibit.

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

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

- A. import json
- B. requests("GET", base\_url + request\_url, cookies=cookies)
- C. pip install requests
- D. import requests

**Answer: D**

**NEW QUESTION 22**

- (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 26**

- (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 31**

- (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 35**

- (Exam Topic 1)

Fill in the blanks to complete the statement.

Given a username of "devnet" And a password "Cisco123", applications must create a base64 encoding of the string " \_\_\_\_\_ " when sending HTTP requests to an API that uses \_\_\_\_\_ authentication.

Given a username of "devnet" and a password of "cisco123", applications must create a base64 encoding of the string " \_\_\_\_\_ " when sending HTTP requests to an API that uses \_\_\_\_\_ authentication.

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Solution as below

Given a username of "devnet" and a password of "cisco123", applications must create a base64 encoding of the string " devnet:cisco123 " when sending HTTP requests to an API that uses Basic authentication.

**NEW QUESTION 36**

- (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 37**

- (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 39**

- (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 44**

- (Exam Topic 1)

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

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

**Answer:** C

**NEW QUESTION 49**

- (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 52**

- (Exam Topic 1)

Which CI/CD tool is an automation tool used to build, test, and deploy software?

- A. Nagios
- B. Gradle
- C. Jenkins
- D. Git

**Answer:** C

**Explanation:**

Reference:

<https://www.infoworld.com/article/3271126/what-is-cicd-continuous-integration-and-continuous-delivery-expla>

**NEW QUESTION 56**

- (Exam Topic 1)

What are two security benefits of a Docker-based application?

- A. easier to patch because Docker containers include only dependencies that the application requires
- B. prevents information leakage that can occur when unhandled exceptions are returned in HTTP responses
- C. allows for separation of application that traditionally run in the same host
- D. natively secures access to secrets that are used by the running application
- E. guarantees container images are secured and free of vulnerabilities

**Answer:** AC

**NEW QUESTION 60**

- (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 63**

- (Exam Topic 1)

Users cannot access a webserver and after the traffic is captured, the capture tool shows an ICMP packet that reports "communication administratively prohibited"  
What is the cause of this webserver access issue?

- A. An access list along the path is blocking the traffic
- B. The traffic is not allowed to be translated with NAT and dropped.
- C. Users must authenticate on the webserver to access it
- D. A router along the path is overloaded and thus dropping traffic

**Answer:** A

**NEW QUESTION 67**

- (Exam Topic 1)

Which type of HTTP method is used by the Meraki and webex teams APIs to send webhook notifications?

- A. HTTP GET
- B. HTTP PUT
- C. HTTP HEAD
- D. HTTP POST

**Answer:** D

**Explanation:**

Reference: <https://meraki.cisco.com/blog/tag/alerts/>

**NEW QUESTION 72**

- (Exam Topic 1)

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

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

**Answer:** C

**NEW QUESTION 75**

- (Exam Topic 1)

Refer to the exhibit.

## HTTP REQUEST

POST /organizations/ {organizationId}/networks

## PARAMETERS

### name

The name of the new network.

### type

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

### tags

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

### timeZone

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

### copyFromNetworkId

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

### disableMyMerakiCom

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

### disableRemoteStatusPage

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

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

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

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

**NEW QUESTION 77**

- (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 82**

- (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 86**

- (Exam Topic 1)

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

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

- A. Mastered

B. Not Mastered

Answer: A

**Explanation:**

Check below the answer exact.

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

**NEW QUESTION 88**

- (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 91**

- (Exam Topic 1)

Which statement describes the benefit of using functions in programming?

- A. Functions allow problems to be split into simpler, smaller groups, and reduce code repetition, which makes the code easier to read.
- B. Functions ensure that a developer understands the inner logic contained before using them as part of a script or application.
- C. Functions create the implementation of secret and encrypted algorithms.
- D. Functions store mutable values within a script or application.

Answer: A

**NEW QUESTION 95**

- (Exam Topic 1)

What is the outcome of executing this command?

```
git clone ssh://john@exmaple.com/path/to/my-project_git
```

- A. Creates a local copy of a repository called "my project"
- B. Creates a copy of a branch called "my project"
- C. Initiates a new Git repository called "my project"
- D. Creates a new branch called "my project"

Answer: A

**Explanation:**

Reference: <https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-clone>

**NEW QUESTION 100**

- (Exam Topic 1)

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

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

Answer: B

**Explanation:**

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

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

**NEW QUESTION 101**

- (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 104**

- (Exam Topic 1)

Drag and drop the network automation interfaces from the left onto the transport protocols that they support on the right.

SSH	gRPC <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
HTTP	
HTTP/2	
HTTPS	
	NETCONF <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
	RESTCONF <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

gRPC = C, NETCONF = A, RESTCONF = B, D OR

**NEW QUESTION 107**

- (Exam Topic 1)

Drag and drop the Python code from the left onto the correct step on the right to call a REST API.

<pre>response = requests.post(url, data=json.dumps(payload), \ headers=header, verify=False)</pre>	Step 1 – Import the correct libraries.
<pre>ticket = r_json["Token"] print (ticket)</pre>	Step 2 – Declare the necessary variable.
<pre>(_json = response.json() print(r_json)</pre>	Step 3 – Send the HTTP Request.
<pre>import requests import json</pre>	Step 4 – Format and display the response in JSON readable format.
<pre>controller = 'devnetapi.cisco.com/sandbox/dnacenter' url = 'https://' + controller + '/dna/system/api/v1/auth/token' payload = { 'username': 'devnetuser', 'password': 'pa55word' } header = { 'Content-type': 'application/json' }</pre>	Step 5 – Parse the response to display the Service Ticket.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

<pre>response = requests.post(url, data=json.dumps(payload), \ headers=header, verify=False)</pre>	<pre>import requests import json</pre>
<pre>ticket = r_json["Token"] print (ticket)</pre>	<pre>controller = 'devnetapi.cisco.com/sandbox/dnacenter' url = 'https://' + controller + '/dna/system/api/v1/auth/token' payload = { 'username': 'devnetuser', 'password': 'pa55word' } header = { 'Content-type': 'application/json' }</pre>
<pre>(_json = response.json() print(r_json)</pre>	<pre>response = requests.post(url, data=json.dumps(payload), \ headers=header, verify=False)</pre>
<pre>import requests import json</pre>	<pre>(_json = response.json() print(r_json)</pre>
<pre>controller = 'devnetapi.cisco.com/sandbox/dnacenter' url = 'https://' + controller + '/dna/system/api/v1/auth/token' payload = { 'username': 'devnetuser', 'password': 'pa55word' } header = { 'Content-type': 'application/json' }</pre>	<pre>ticket = r_json["Token"] print (ticket)</pre>

**NEW QUESTION 109**

- (Exam Topic 1)

Which product provides network controller-level management features?

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 110**

- (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 111**

- (Exam Topic 1)

Refer to the exhibit.

```
{
  "items": [
    {
      "kind": "object#NetworkObj",
      "selfLink": "https://10.201.230.5/api/objects/networkobjects/db01",
      "name": "db01",
      "host": {
        "kind": "IPv4address",
        "value": "172.16.0.11"
      },
      "objectId": "db01"
    }
  ]
}
```

The JSON data in the exhibit has been parsed and stored in a variable, "data". What returns the value "172.16.0.11" ?

- A. data['items'][0]['host']['value']
- B. data['items'][1]['host']['value']
- C. data['items']['host'][1]
- D. data['items']['host']['value']

**Answer:** A

#### NEW QUESTION 116

- (Exam Topic 1)

Which detail is included in a routing table?

- A. IP protocol
- B. Broadcast address
- C. TCP or UDP port number
- D. Destination next hop or outgoing interface

**Answer:** D

#### Explanation:

Reference: <https://geek-university.com/ccna/routing-table-explained/>

#### NEW QUESTION 120

- (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 122

- (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 124

- (Exam Topic 1)

What is the purpose of the Cisco VIRL software tool?

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

**Answer:** B

#### Explanation:

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

#### NEW QUESTION 125

- (Exam Topic 1)

Which is an advantage of using network programmability?

- A. It removes CLI access for devices.
- B. It provides for more scalable and replicable network provisioning.
- C. Manual configuration is faster.
- D. No cloud abstraction occurs.

**Answer:** B

#### NEW QUESTION 129

- (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 131**

- (Exam Topic 1)

Refer to the exhibit.

```

---
- hosts: CISCO_ROUTER_01
  gather_facts: true
  connection: network_cli

  tasks:
    - name: show conf
      ios_command:
        commands:
          - show conf
      register: config

    - name: save output to /etc/ansible/configs
      copy:
        content: "{{ config.stdout[0] }}"
        dest: "/etc/ansible/configs/show_conf_{{ inventory_hostname }}.txt"

```

What is the result of executing this Ansible playbook?

- A. The playbook copies a new start-up configuration to CISCO\_ROUTER\_01.
- B. The playbook backs up the running configuration of CISCO\_ROUTER\_01.
- C. The playbook backs up the start-up configuration of CISCO\_ROUTER\_01.
- D. The playbook copies a new running configuration to CISCO\_ROUTER\_01.

Answer: C

**NEW QUESTION 132**

- (Exam Topic 1)

Refer to the exhibit.

```

---
- hosts: switch2960cx
  gather_facts: no

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

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

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

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

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

```

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

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

Answer: BD

#### NEW QUESTION 135

- (Exam Topic 3)

Which HTTP method is used by webhooks and notifies a listener about an event change?

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

Answer: B

#### NEW QUESTION 138

- (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 142**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 143**

- (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 147**

- (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
- command to execute
- initializes a new build stage
- copies new files or directories
- sets the userid

- FROM ubuntu
- MAINTAINER User One (userone@cisco.com)
- RUN apt-get update && apt-get install traceroute

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

- initializes a new build stage
- document author
- command to execute

**NEW QUESTION 149**

- (Exam Topic 3)

Drag and drop characteristics from the left onto the infrastructure management methodologies on the right.

- exposes RESTCONF as Northbound API
- uses REST as Northbound API
- supported by standards such as YANG models
- integrates to ITSM tools using Westbound APIs

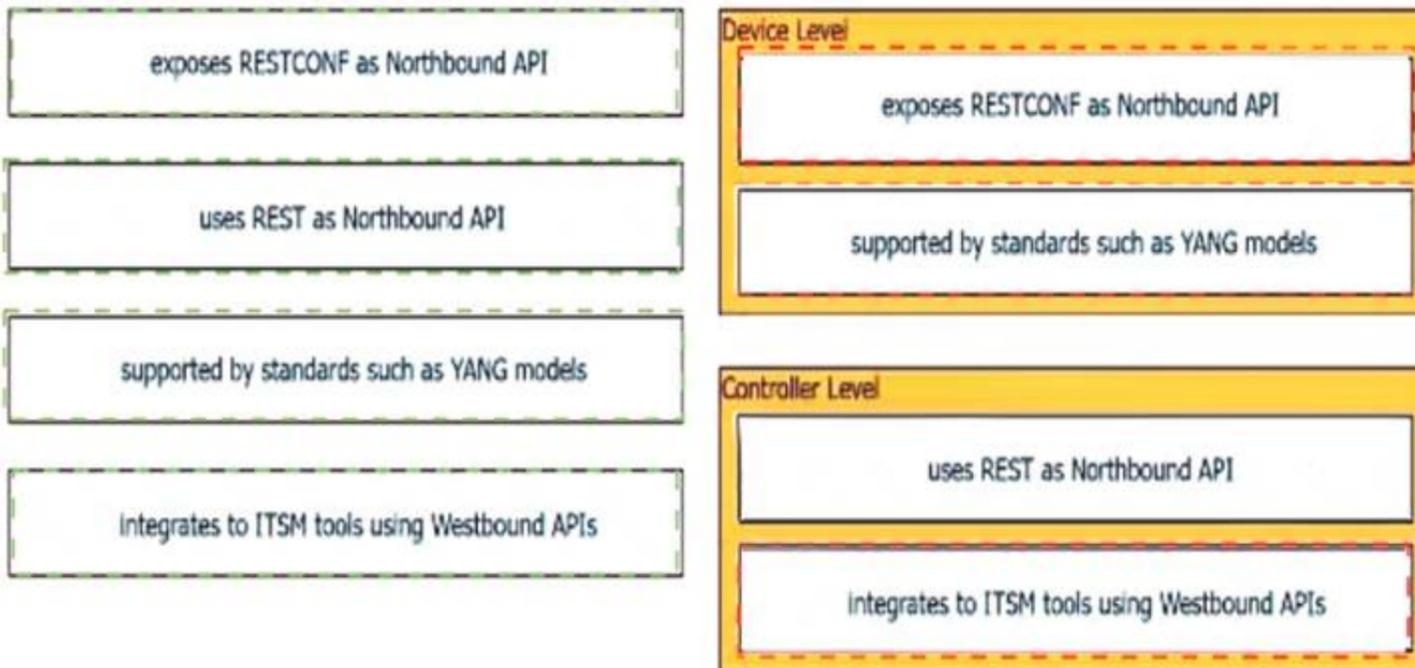
**Device Level**

**Controller Level**

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

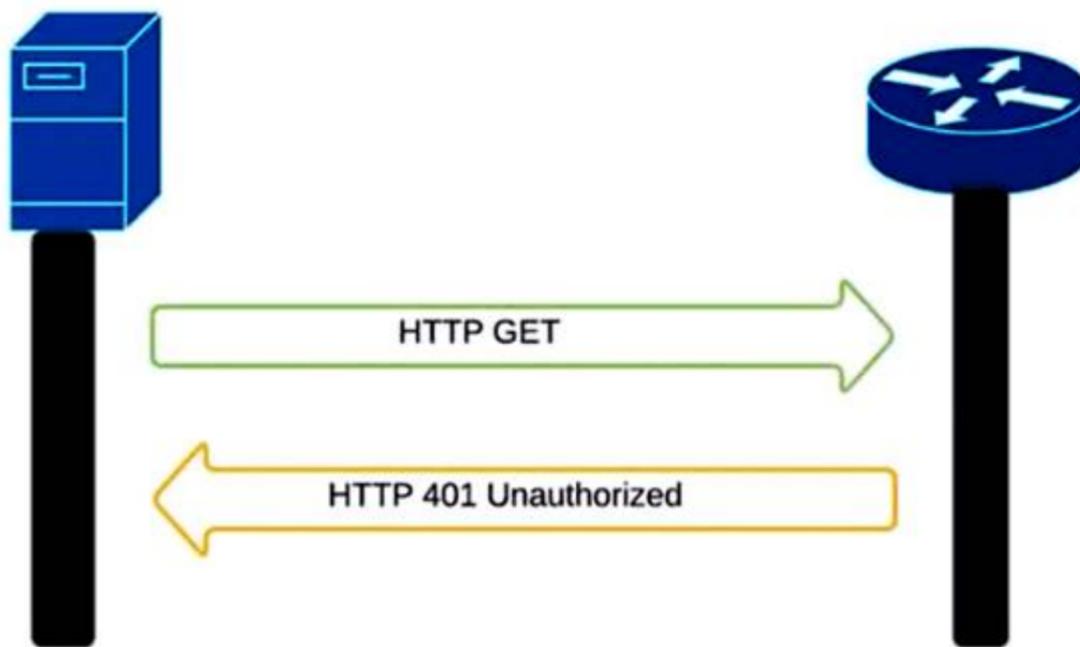


**NEW QUESTION 150**

- (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 153**

- (Exam Topic 3)

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

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

- A. returning backup files that are older than 30 days
- B. deleting backup files that are older than 30 days
- C. configuring the directory to delete files automatically

D. automating deletion of all backup files every 30 days

Answer: B

**NEW QUESTION 157**

- (Exam Topic 3)

A business needs to create a simulated environment that mimics a production infrastructure to make changes to the OSPF process and analyze the impact. What should be used?

- A. Cisco VIRL / Cisco CML
- B. Cisco DevNet Sandbox labs
- C. pyATS
- D. Puppet

Answer: A

**Explanation:**

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

**NEW QUESTION 160**

- (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 164**

- (Exam Topic 3)

Which action do webhooks enable an application to perform?

- A. Increase the request rate limit.
- B. Populate the application with restricted data.
- C. Receive real-time data.
- D. Implement a push model.

Answer: D

**Explanation:**

Simplifying the wording: Webhook enables the app to ( push or receive real time) . The clients should receive real time but the app pushes.

**NEW QUESTION 168**

- (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-CT5504-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 169

- (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 172

- (Exam Topic 3)

Which port does HTTPS use by default?

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

Answer: B

#### NEW QUESTION 177

- (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 178

- (Exam Topic 2)

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

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

**Answer:** A

**NEW QUESTION 179**

- (Exam Topic 2)

What is a benefit of using edge computing in an IoT implementation?

- A. low cost in network design
- B. low network design complexity
- C. high availability for network components
- D. high speed in data processing

**Answer:** D

**NEW QUESTION 182**

- (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 183**

- (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 186**

- (Exam Topic 3)

Which function does a router provide to a network?

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

**Answer:** B

**NEW QUESTION 191**

- (Exam Topic 3)

What is a benefit of version control?

- A. prevents two users from working on the same file
- B. keeps track of all changes to the files
- C. prevents the sharing of files
- D. keeps the list of data types used in the files

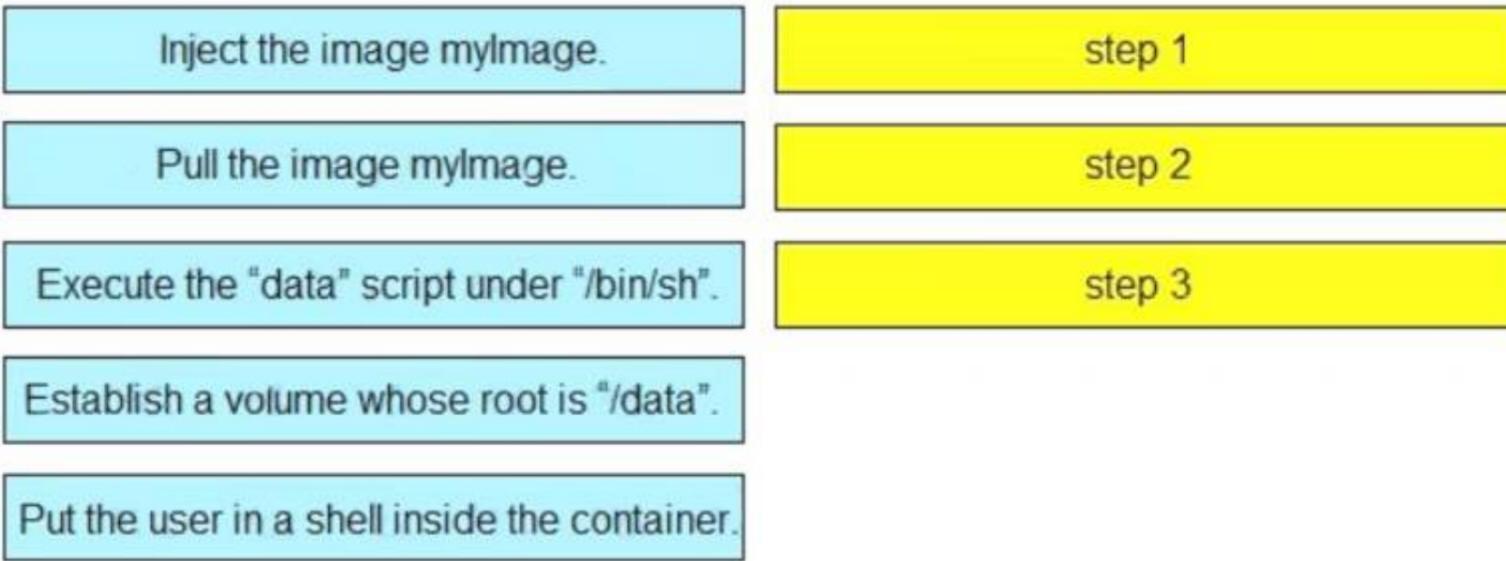
**Answer:** B

**NEW QUESTION 193**

- (Exam Topic 3)

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

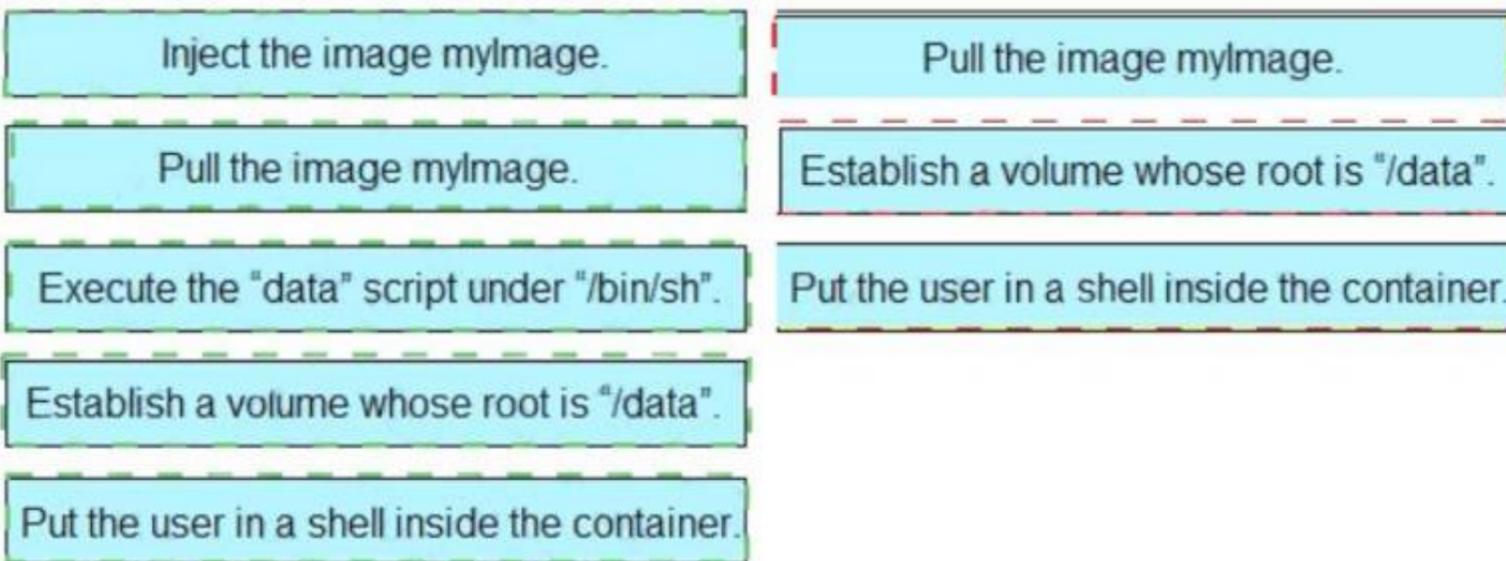
Refer to the exhibit. Drag and drop the actions from the left that the contents of this Dockerfile accomplish onto the right. Not all options are used.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



**NEW QUESTION 194**

- (Exam Topic 3)

To which stage of development do Infrastructure as Code principles relate?

- A. manual configuration
- B. service provisioning
- C. physical deployment
- D. requirement collection

Answer: B

**NEW QUESTION 197**

- (Exam Topic 3)

```

import requests
from requests.auth import HTTPBasicAuth
BASE_URL = 'https://<IP ADDRESS or FQDN>'
AUTH_URL = '/dna/system/api/v1/auth/token'
TOKEN = '<TOKEN>'

headers = {'X-Auth-Token': TOKEN, 'Content-Type': 'application/json'}

DEVICES_COUNT_URL = '/dna/intent/api/v1/network-device/count'
DEVICES_URL = '/dna/intent/api/v1/network-device'
DEVICES_BY_ID_URL = '/dna/intent/api/v1/network-device/'

def devices_func(headers):
    response = requests.get(BASE_URL + DEVICES_COUNT_URL,
                            headers = headers, verify=False)
    return response.json()['response']

def devices_test(headers, query_string_params):
    response = requests.get(BASE_URL + DEVICES_URL, headers = headers,
                            params = query_string_params, verify=False)
    return response.json()['response']

def devices_info(headers, device_id):
    response = requests.get(BASE_URL + DEVICES_BY_ID_URL + device_id,
                            headers = headers, verify=False)
    return response.json()['response']

print(devices_func(headers))
print(devices_test(headers, {}))
print(devices_test(headers, {'hostname': 'CSR1Kv-01.devnet.local'}))
response = devices_test(headers, {'platformId': 'C9500-40X'})
print(devices_info(headers, response[0]['id']))

```

Refer to the exhibit. An engineer prepares a script to automate workflow by using Cisco DNA Center APIs to display:  
 total count of devices  
 list of the network devices  
 information of one device with a hostname filter  
 What is displayed in the final step after the Python script is executed?

- A. information about a device of type C9500-40x.
- B. filtered results by the hostname and the platformId C9500-40X
- C. information about the test devices
- D. list of devices with platformId C9500-40x

**Answer: B**

**NEW QUESTION 202**

- (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 203**

- (Exam Topic 3)

What is a feature of XML compared to other data formats?

- A. It uses tags to define the structure.
- B. It uses parenthesis for key-value pairs.
- C. It uses indentation to define the structure.
- D. It uses namespaces for list representation.

**Answer: A**

**NEW QUESTION 205**

- (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 206**

- (Exam Topic 3)

An engineer needs to collect information about 20,000 Bluetooth clients using the Cisco Meraki API. The API returns only 1,000 results. One of the HTTP response headers has the data:

Link: [https://api.meraki.com/info/api/v0/networks/ABC/bluetoothClients?perPage=1000&startingAfter=1000>;rel="n](https://api.meraki.com/info/api/v0/networks/ABC/bluetoothClients?perPage=1000&startingAfter=1000>;rel=)

Which RFC is implemented by the API to apply the restriction?

- A. RFC 5988 – Web Linking
- B. RFC 5890 – Response Constraints
- C. RFC 5005 – Feed Paging and Archiving
- D. RFC 5446 – Content Limits

**Answer: C**

**NEW QUESTION 207**

- (Exam Topic 3)

Which HTTP error code series relates to redirection?

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

**Answer: D**

**Explanation:**

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

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

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

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

**NEW QUESTION 211**

- (Exam Topic 3)

What is the purpose of grouping devices in a VLAN?

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

**Answer: B**

**NEW QUESTION 213**

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