- **Vendor:** Cisco
- **Exam Code:** 350-901
- **Exam Name:** Developing Applications Using Cisco Core Platforms and APIs (DEVCOR)
- **New Updated Questions from Braindump2go (Updated in July/2022)**

QUESTION 274
Refer to the exhibit. Which code snippet must be added to the blank in the code to automate the evaluation and handling of errors due to wrong credentials when Basic Authorization is used?

```
response = requests.get(url, auth= (username, password))
[                                                        ]

    print("Invalid credentials. Please login again")
    username, password = get_credentials()
    response = requests.get(url, auth= (username, password))
```

A.
```
while response.get.status_code == 404 :
```

B.
```
while response.status_code == 403 :
```

C.
```
while response.status_code == 401 :
```

D.
```
while response.get.status_code == 400 :
```

Answer: C

QUESTION 275
A developer needs to build a new Docker image and has created a tag by using the command:
`$ docker tag 32df423320458 local/app.1.2`
Which command must be executed next to build the Docker image using the tag?

A.
```
$ docker run -p local/app:1.2
```

B.
```
$ docker run -t local/app:1.2
```

C.
```
$ docker build -t local/app:1.2
```

D.
```
$ docker build -p local/app:1.2
```

Answer: C

QUESTION 276
Refer to the exhibit. A developer created a Python script to retrieve interface information for the devices in a MeraKi network environment.
A security analyst has reviewed the code and observed poor secret storage practices.
What is the appropriate password storage approach?

```
import http.client
import mimetypes

MER_API_KEY = '345ed8d63e19179cf88a100bc2f8056fad512345'

conn = http.client.HTTPSConnection("https://api.meraki.com/api/v0")
payload = {}

headers = {
    'Content-Type': 'application/json',
    'API_KEY': MER_API_KEY
}

conn.request("GET", "/interfaces", payload, headers)
```

A. Set the Base64 encoded version of the API key as MER_API_KEY in the code and Base64 decode before using in the header.
B. Set an OS environment variable for MER_API_KEY to the API key during running the code and longer set MER_API_KEY within the code.
C. Create a secret for the API key, set MER_API_KEY using the value from the secret in the Pod, and no longer set MER_API_KEY within the code.
D. Leverage an external secret vault to retrieve MER_API_KEY and embed the vault key as a new variable before running the code.

Answer: D

QUESTION 277
Which action enhances end-user privacy when an application is built that collects and processes the location data from devices?

A. Pepper the MAC address for each device.
B. Salt the MAC address for each device.
C. Implement an algorithmic information theoretic loss to the MAC address for each device.
D. Use the network device serial number to encrypt the MAC address for each device.

Answer: C

QUESTION 278
Refer to the exhibit.

```
import requests
import getpass

device_list = ['192.168.243.1', '192.168.243.2']
port = "8080"

username = input("Enter Username  -->")
password = getpass.getpass(prompt="Enter Password:  ->")

for device in device_list:
    [                                                    ]

    headers = {'Content-Type': 'application/vnd.yang.data+json',\
               'Accept': 'application/vnd.yang.data+json'}

    response = requests.get( url, auth=(username, password),\
                             headers=headers, verify=False)

    print(f"Interfaces present on  {device}:")
    for interfaces in response.json():
        print(f"{interfaces}")
```

A.
```
url="http://"+device+":"+port"/api/running/
     interfaces/interface/name"
```

B.
```
url="http://"+device+":"+port"/api/running/
     interfaces/interface"
```

C.
```
url="http://"+device+":"+port+"/api/running/
     interfaces"
```

D.
```
url=http://f"{device_list}+{port}/api/running/
     interfaces"
```

Answer: B

QUESTION 279

A new record-keeping application for employees to track customer orders must be deployed to a company's existing infrastructure.

The host servers reside in a data center in a different country to where the majority of users work. The new network configuration for the database server is:

- IP: 10.8.32.10
- Subnet Mask: 255.255.255.0
- Hostname: CustOrd423320458-Prod-010
- MAC: 18-46-AC-6F-F4-52

The performance of the client-side application is a priority due to the high demand placed on it by employees.

Which area should the team consider in terms of impact to application performance due to the planned deployment?

A. jitter
B. decreased bandwidth
C. latency

D. connectivity loss

Answer: C

QUESTION 280
An application requires SSL certificates signed by an intermediate CA certificate. The crt files must be available to the application:
- The root CA certificate is root_certrficate.crt.
- The intermediate CA certificate is intermediate_certificate.crt
- The application-specific SSL certificate is crt_certificate.crt.

Which Bash command outputs the certificate bundle as a .pern file?

A.
```
cat root certificate.crt intermediate certificate.crt >
certificate bundle.pem
```

B.
```
cat root certificate.crt intermediate certificate.crt
crl certificate.crt > certificate bundle.pem
```

C.
```
cat crl certificate.crt intermediate certificate.crt
root certificate.crt > certificate bundle.pem
```

D.
```
cat intermediate_certificate.crt root_certificate.crt >
certificate_bundle.pem
```

Answer: D

QUESTION 281
Refer to the exhibit An application hosting server with the local data center is experiencing large amounts of traffic from enclusers.
A developer must optimize this API server to reduce the toad on its host.
What are two ways to optimize this code through HTTP cache controls? (Choose two.)

```
from http.server import HTTPServer, BaseHTTPRequestHandler
import json

class MainHandler(BaseHTTPRequestHandler):
    def do_GET(self):
        users = get_users()
        self.send_response(200)
        self.wfile.write(json.dumps(users).encode("utf-8"))
        self.end_headers()

if __name__ == "__main__":

    def run(server_class=HTTPServer, handler_class=BaseHTTPRequestHandler):
        server_address = ('0.0.0.0', 8000)
        httpd = server_class(server_address, MainHandler)
        httpd.serve_forever()
    run()
```

A. Include the "ETag" header in the API response.
B. Include the "Last-Modified" header in the API response.
C. Include the "Content-Type" header in the API response.
D. Leverage middleware caching and respond with HTTP code 104 m the API response
E. Leverage middleware caching and respond with HTTP code 204 m the API response.

Answer: AB

QUESTION 282
Refer to the exhibit. One part of an application routinely uses the Cisco Meraki API to collate data about all clients. Other parts of the application also use the Meraki API, but a single API key is used within the application. The organization has approximately 4,000 clients across 30 networks Some of the application users report poor performance and missing data.
Which two changes improve the performance of the application? (Choose two.)

```
import requests
import json

BASE_URL = 'https://api.meraki.com/api/v0'
API_KEY = '6bec40cf957de430a6f1f2baa056b99a4fac8fa0'

headers = {
    'Content-Type': 'application/json',
    'X-Cisco-Meraki-API-Key': API_KEY
}

url = f'{BASE_URL}/organizations/2930418/networks'
network_response = requests.get(url, headers=headers)

if network_response.status_code == 200:
    for network in network_response.json():

        url = f'{BASE_URL}/networks/{network["id"]}/clients'
        clients_response = requests.get(url, headers=headers)

        if clients_response.status_code == 200:
            print(clients_response.decode("utf-8"))
```

A. Check for HTTP code 429 and wait until Retry-After time before further calls are made
B. Configure multiple API keys in the application and rotate usage of each one.
C. Use random values in the User-Agent header when HTTP calls are made.
D. Use fewer API calls to create a more efficient endpoint.
E. Check API response payloads for later reuse in real time during code execution.

Answer: AB

QUESTION 283
How should logs for an application be created?

A. Use a standard and easily configurable logging framework.
B. Use fault-tolerant protocols.
C. Monitor for backlogs and outages.
D. Filter sensitive data before transmitting logs.

Answer: A

QUESTION 284
Which approach is used to protect East-West API traffic?

A. Use encryption between services
B. Install a perimeter firewall
C. Use a dedicated cloud connection service.
D. Implement an API gateway

Answer: A

QUESTION 285
A developer creates an application for a Cisco Catalyst 9000 switch in a Docker container.
Which action must be taken to host the application on the switch?

A. Copy the application code to a NETCONF file and upload the file to the switch
B. Connect the switch to Cisco DNA Center and push the application through the platform.
C. Use the Cisco IOxClient tool to export the application to a ZIP file and push the file to the switch
D. Export the application as a TAR file and import the file to the switch

Answer: D

QUESTION 286
Refer to the exhibit. A network engineer must integrate error handling tor time-outs on network devices using the REST interface.
Which line of code needs to be placed on the snippet where the code is missing to accomplish this task?

```
import requests
import time
import json

class Connection:
    def __init__(self, config):
        self._config = config
        self._session = None
        self._retries = 0
        self._MAX_RETRIES = 12

    def _setupSession(self):
        self._retries = 0
        if self._session is None:
            self._session = requests.Session()
        return

    def get(self, url, params=None):
        self._setupSession()
        resp = self._session.get(self._config.host + url, verify=False, params=params)
        if resp.status_code == 200:
            return json.loads(resp.content.decode('utf-8'))
            [                                                    ]
            self._retries += 1
            exp_backoff = (2**(self._retries+3))/1000
            time.sleep(exp_backoff)
            self.get(url=url, params=params)
        return resp
```

A. elif resp.status_code == 429 or serf._retries < selff._MAX_RETRIES:
B. elif resp.status_code == 404 or self, retries < self._MAX_RETRIES:
C. elif resp.status_code == 429 and self .retries < self._MAX_RETRIES:
D. elif resp.status_code == 404 and self._relries < self._MAX_RETRIES:

Answer: C

QUESTION 287
Two Elasticsearch database servers use bidirectional asynchronous data replication. Both servers accept writes from clients. The design must meet these requirements:
- The cluster must survive if a fault occurs that causes the network connection to go down between nodes.
- The data must remain consistent if communication between nodes fails.
- The data must be spread evenly across all nodes in the cluster.
Which design approach must be used to meet the requirements?

A. Set the initial voting configuration to force a specific node as the master.

B. Scale the master nodes down to a single node.
C. Set the minimum_master_nodes to 2 in the configuration.
D. Add a third cluster node to provide majority votes.

Answer: C

QUESTION 288
Refer to the exhibit. A network engineer developed an Ansible playbook and committed it to GitLab. A GitLab CI pipeline is started but immediately fails. What is the issue?

```
Running on runner-kzy3auq6-project-2-concurrent-0 via d277177ad901...
Getting source from Git repository
Fetching changes with git depth set to 50...
Reinitialized existing Git repository in /builds/pod01/nxos_cicd/.git/
Checking out 140cb64b as master...
Skipping Git submodules setup
Executing "step_script" stage of the job script
$ ansible-playbook --syntax-check -i hosts site.yml
ERROR! We were unable to read either as JSON nor YAML, these are the errors we got from each:
JSON: Expecting value: line 1 column 1 (char 0)
Syntax Error while loading YAML.
  did not find expected '-' indicator
The error appears to be in '/builds/pod01/nxos_cicd/roles/spine/tasks/main.yml': line 5, column 3, but may
be elsewhere in the file depending on the exact syntax problem.
The offending line appears to be:
  - name: ENABLE FEATURES
  cisco.nxos.nxos_feature:
  ^ here
Cleaning up file based variables
ERROR: Job failed: exit code 1
```

A. The runner task uses an incorrect parameter.
B. The Ansible playbook task has a formatting issue.
C. The Ansible playbook has an undefined variable.
D. The runner is running the wrong Docker version.

Answer: B

QUESTION 289
Refer to the exhibit. Which URI string retrieves configured static routes in a VRF named CUSTOMER from a RESTCONF-enabled device?

```
            container protocols {
          description
            "The routing protocols that are enabled for this network-instance.";

          list protocol {
            key "identifier name";

            description
              "A process (instance) of a routing protocol. Some systems may not support
              more than one instance of a particular routing protocol";

            leaf identifier {
              type leafref {
                path "../config/identifier";
              }
              description
                "The protocol name for the routing or forwarding protocol to be
                instantiated";
            }

            leaf name {
              type leafref {
                path "../config/name";
              }
              description
                "An operator-assigned identifier for the routing or forwarding protocol.
                For some processes this leaf may be system defined.";
            }
.
.
          }
        }
      }
    }
  }
.
.
.
  uses network-instance-top;
}
```

A.

```
/restconf/data/\
  openconfig-network-instance:network-instances/\
  network-instance/=CUSTOMER/protocols/protocol=STATIC
```

B.

```
/restconf/data/ietf-interfaces:interfaces/\
  interface/GigabitEthernet1
```

C.

```
/restconf/data/\
  openconfig-network-instance:network-instances/\
  network-instance/CUSTOMER/protocols/protocol/\
  STATIC,DEFAULT
```

D.

```
/restconf/data/\
  openconfig-network-instance:network-instances/\
  network-instance=/CUSTOMER/protocols/protocol/STATIC
```

Answer: D

QUESTION 290
Refer to the exhibit. Which action resolves the error for the GitLab CI/CD pipeline execution?

```
Running with gitlab-runner 12.9.0-rc1 (a350f628)
   on docker-auto-scale fa6cab46
Preparing the "docker+machine" executor
00:14
 Using Docker executor with image alpine:3.10 ...
 Pulling docker image alpine:3.10 ...
 Using docker image
sha256:5e35e350aded98340bc8fcb0ba392d809c807bc3eb5c618d4a0674d98d88bccd for
alpine:3.10...
$ eval "$CI_PRE_CLONE_SCRIPT"
   * [new ref]         refs/pipelines/125695607 -> refs/pipelines/125695607
  * [new branch]      development              -> origin/development
 Checking out 65702af3 as development...
 Skipping Git submodules setup
Restoring cache
00:01
Downloading artifacts
00:02
Running script from Job
00:01
 $ python3 --version
 /usr/bin/bash: line 94: python3: command not found
Running after script
00:02
Uploading artifacts for failed job
00:01
 ERROR: Job failed: exit code 1
```

A. Download the correct artifacts by specifying them in GitLab.
B. Use the python:3.9.0a4-alpine3.10 Docker image
C. Install the missing python libraries via pip3.
D. Add the absolute path to the python3 executable

Answer: B

QUESTION 291
Refer to the exhibit. An engineer is implementing the response for unrecoverable REST API errors.
Which message needs to be placed on the snippet where the code is missing to complete the print statement?

```
import requests

url = "https://ios-xe-mgmt.cisco.com:9443/restconf/data/Cisco-IOS-XE-native:native"

headers = {'Authorization': 'Basic ZGV2ZWxvcGVyOkMxc2NvMTIzNDU='}

response = requests.get(url, headers=headers, verify=False)

if response.status_code in [500, 501, 502, 503, 504]:
    print( [                                                  ] )
```

A. "Error; The server is unable to handle your request." "Error:
B. The data requested has not been found."
C. "Error: The rate limit has been exceeded for sending API requests at this time"
D. "Enor: The server requires authentication to complete this request."

Answer: A

QUESTION 292
Refer to the exhibit. Recently, users have reported problems logging into an application with their usernames and

passwords.
The logs have captured an authentication attempt.
Based on the messages and errors contained, what is the cause of the problem?

```
Started POST "/users/auth/ldapmain/callback" for 172.17.4.98 at 2021-02-11 21:06:47 +0000
2021-02-11_21:06:49.80956 127.0.0.1 - - [11/Feb/2021:21:06:49 UTC] "GET /sidekiq HTTP/1.1" 200 57318
2021-02-11_21:06:49.80959 - -> /sidekiq
{"severity":"ERROR","timestamp":"2021-02-11T21:06:52.8133Z","pid":20966,"progname":"omniauth", \
  "message":"(ldapmain) Authentication failure! ldap_error: Net::LDAP::Error, Connection timed out -
  user specified timeout"}
Processing by OmniauthCallbacksController#failure as HTML
  Parameters: {"utf8"=>"✓", "authenticity_token"=>"[FILTERED]", "username"=>"user1",
"password"=>"[FILTERED]"}
Redirected to http://192.168.24.55/users/sign_in
Completed 302 Found in 119ms (ActiveRecord: 32.9ms | Elasticsearch: 0.0ms | Allocations: 40775)
{"method":"POST","path":"/users/auth/ldapmain/callback","format":"html","controller":
 "OmniauthCallbacksController","action":"failure","status":302, \
  "location":"http://192.168.24.55/users/sign_in","time":"2021-02-11T21:06:52.934Z",
  "params":[{"key":"utf8","value":"✓"}, \
  {"key":"authenticity_token","value":"[FILTERED]"},{"key":"username","value":"user1"},
  {"key":"password","value":"[FILTERED]"}], \
  "remote_ip":"172.17.4.98","user_id":null,"username":null,"ua":"Mozilla/5.0
  "redis_shared_state_read_bytes":109,"redis_shared_state_write_bytes":85,"db_count":5,\
  "db_write_count":1,"db_cached_count":0,"queue_duration_s":0.008279,"cpu_s":0.11,"db_duration_s":0.03294,
  "view_duration_s":0.0,"duration_s":0.11892}
```

A. The sign-in redirection is sending clients to the wrong server for SSO.
B. There is a time synchronization issue between the application and LDAP.
C. Users are providing incorrect credentials when logging in.
D. The LDAP server used for authentication fails to respond to connection requests

Answer: A

QUESTION 293
Drag and Drop Question
Drag and drop the code from the bottom onto the box where the code is missing in the Python code to complete the greeter function white also mitigating against XSS threats. Not all options are used.

```
from datetime import datetime
from flask import Flask, request, make_response, escape
from flask_wtf.csrf import CSRFProtect
[          ]

csrf = CSRFProtect(app)

[          ]
def time():
    now = datetime.now()
    current_time = now.strftime("%H:%M:%S")
    return make_response("Current Time: " + current_time)

[          ]
def greeter():
    first_name = request.args.get("name", '')
    return make_response("Your name: " + [          ])
```

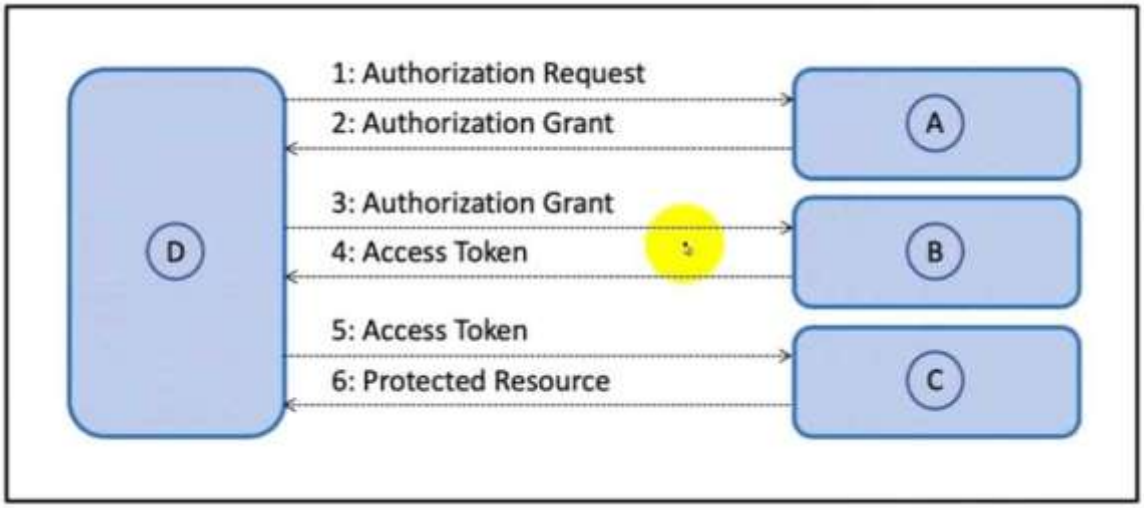
first_name	app = Flask(_name_)	@app.route('/time')
@app.route('/greeter')	escape(first_name)	last_name

Answer:

```
from datetime import datetime
from flask import Flask, request, make_response, escape
from flask_wtf.csrf import CSRFProtect
app = Flask(_name_)
csrf = CSRFProtect(app)
@app.route('/time')
def time():
    now = datetime.now()
    current_time = now.strftime("%H:%M:%S")
    return make_response("Current Time: " + current_time)
@app.route('/greeter')
def greeter():
    first_name = request.args.get("name", '')
    return make_response("Your name: " + first_name)
```

escape(first_name) last_name

QUESTION 294
Drag and Drop Question
Refer to the exhibit. Drag and drop the components from the Oauth2 authorization protocol flow on the left onto the letter that matches the location in the exhibit.



authorization server	A
client	B
resource owner	C
resource server	D

Answer:

QUESTION 295

Drag and Drop Question

A developer is creating a Python script to use the Webex REST API to list joined spaces and handle and print the errors it receives. Drag and drop the code from the bottom of the code snippet onto the blanks in the code to complete the script. Not all options are used.

```
import requests
url = 'https://api.ciscospark.com/v1/rooms'
[                    ] = "BEARER_TOKEN_HERE"
headers = {"content-type": "application/json",
           "[                    ]": "Bearer " + bearer}
 try :
[                    ] = requests.get(url, headers=headers, verify=False)
   response.raise_for_status()
 except  requests.exceptions.HTTPError as err:
   if response.status_code == 401 :
      print("Check Bearer Token")
   elif response.status_code == 404 :
      print("Check API Endpoint uri")
   elif response.status_code == 500:
      print("[                    ], Try again Later")
   else:
      print(("HTTP Error") + str(err))
```

Authorization | Too many requests | Server Error

Authentication | bearer | response

Answer:

```
import requests
url = 'https://api.ciscospark.com/v1/rooms'
[     bearer     ] = "BEARER_TOKEN_HERE"
headers = {"content-type": "application/json",
           "[ Authorization ]": "Bearer " + bearer}
 try :
[    response    ] = requests.get(url, headers=headers, verify=False)
   response.raise_for_status()
 except  requests.exceptions.HTTPError as err:
   if response.status_code == 401 :
      print("Check Bearer Token")
   elif response.status_code == 404 :
      print("Check API Endpoint uri")
   elif response.status_code == 500:
      print("[ Server Error ], Try again Later")
   else:
      print(("HTTP Error") + str(err))
```

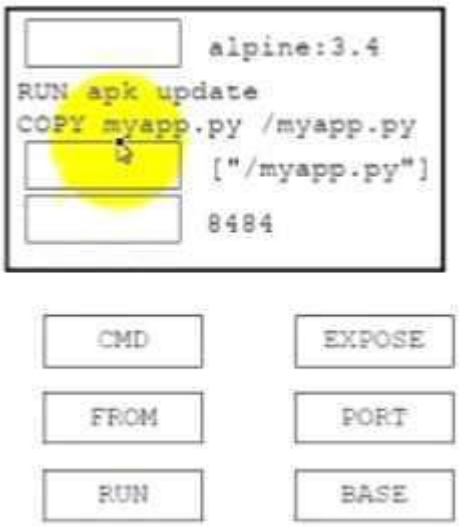
Too many requests

Authentication

QUESTION 296

Drag and Drop Question

Drag and drop the code from the bottom onto the box where the code is missing on the Dockerfile to containerize an application that listens on the specified TCP network port at runtime. Not all options are used.



Answer: