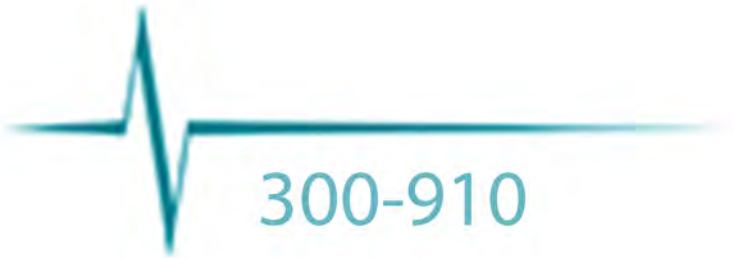
Practice Exam Questions



Implementing DevOps Solutions and Practices using Cisco Platforms (DEVOPS)

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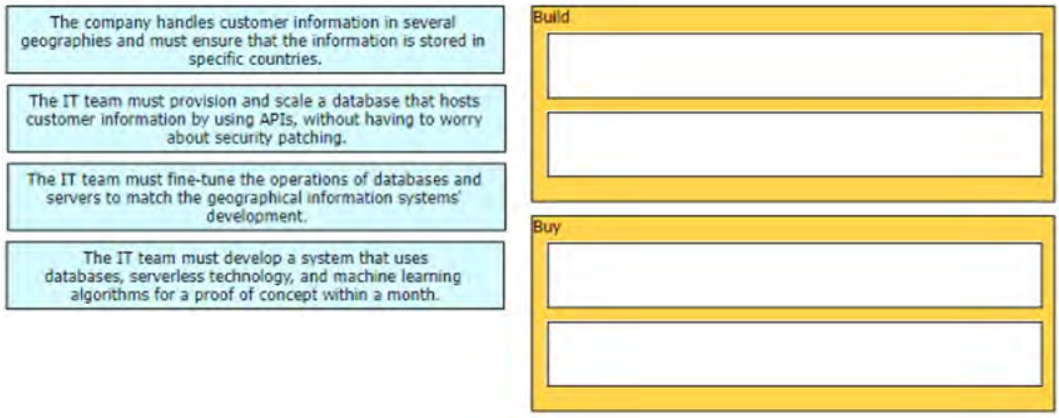
Exam 300-910

Implementing DevOps Solutions and Practices using Cisco Platforms (DEVOPS)

Version: 5.0

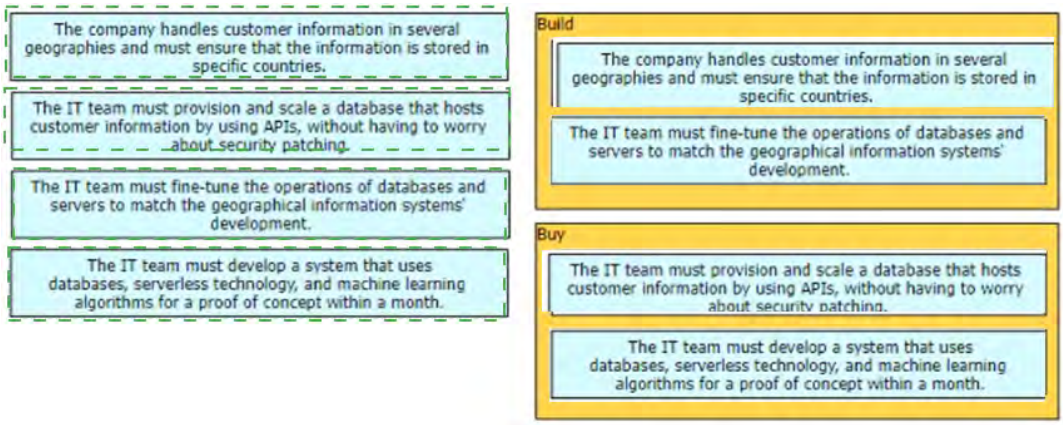
[Total Questions: 114]

Question No : 1 DRAG DROP

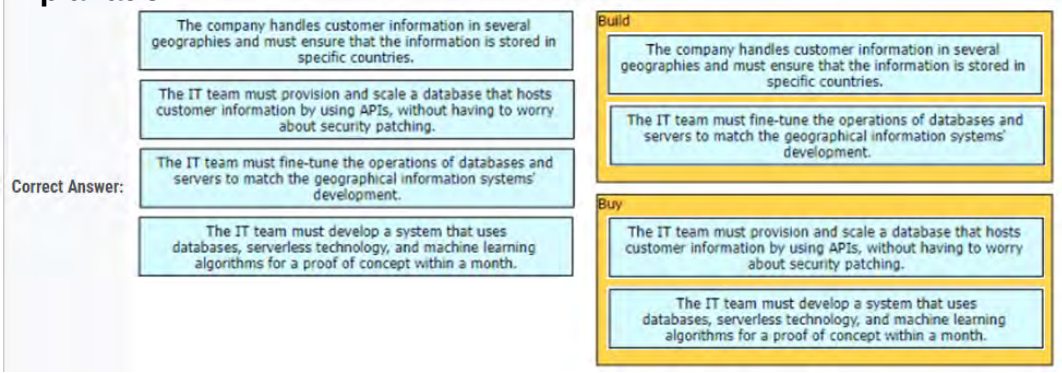


Drag and drop the scenarios from the left onto the cloud strategy categories on the right.

Answer:



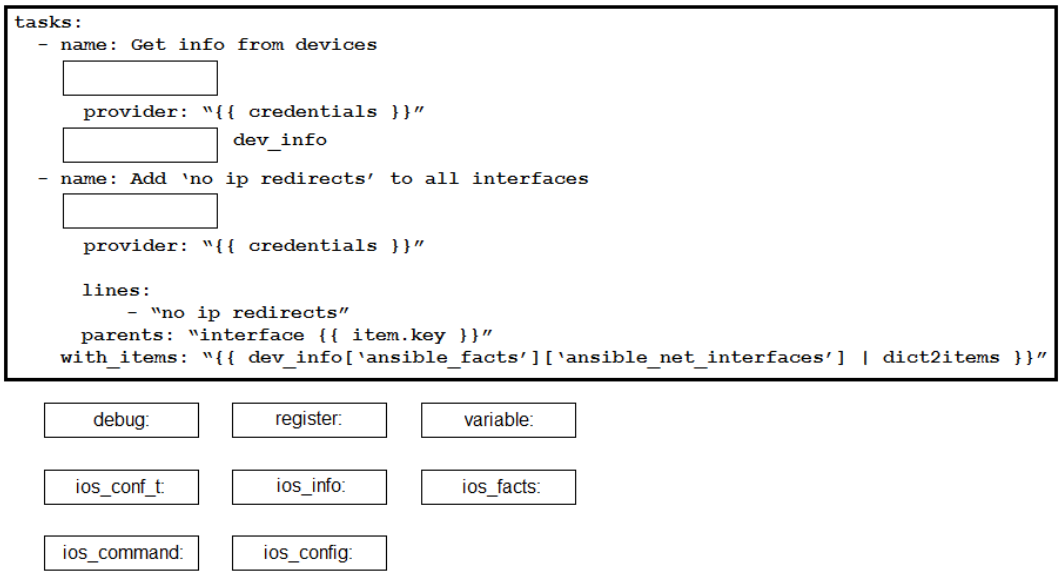
Explanation:



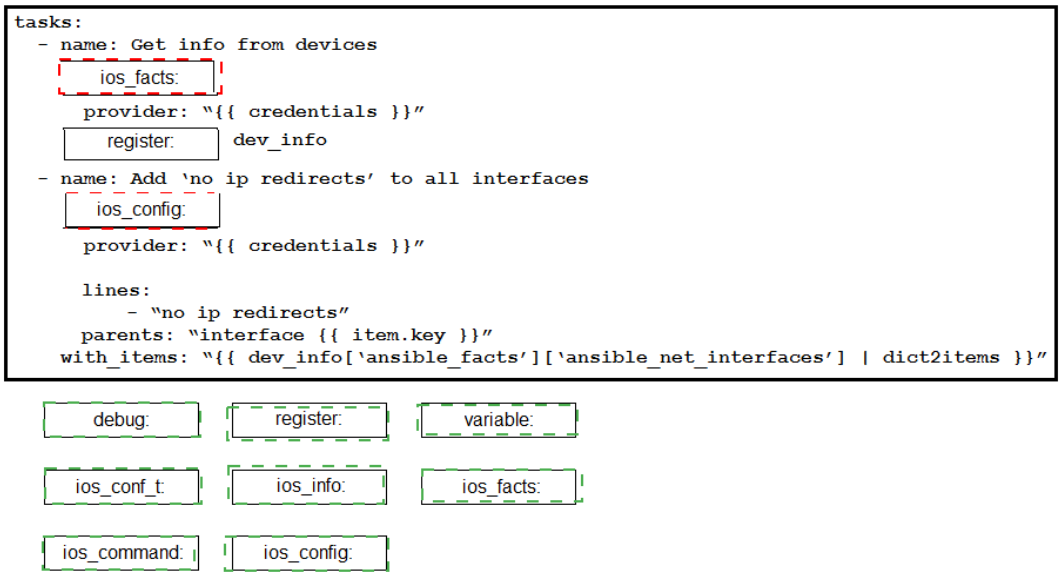
Question No : 2 DRAG DROP

Construct an Ansible script to gather information about target routers and then use it to

apply no ip redirects to every interface on each device. Drag and drop the code from the bottom onto the correct location in the exhibit to complete the tasks section of the Ansible playbook so that it accomplishes your goal.



Answer:



Question No : 3

Which Dockerfile produces an efficient image rebuild when the exposed port Python dependency, or MyApp source code is modified?

A)

```
FROM python

EXPOSE 8082

WORKDIR /home/app
COPY ./my-app/requirements.txt /home/app/requirements.txt
RUN pip install -r requirements.txt
COPY ./my-app/ /home/app
```

B)

```
FROM python:3.7.4-buster

EXPOSE 8082

WORKDIR /home/app
COPY ./my-app/ /home/app
RUN pip install -r requirements.txt
```

C)

```
FROM python:latest

WORKDIR /home/app
RUN pip install -r requirements.txt
COPY ./my-app/ /home/app

EXPOSE 8082
```

D)

```
FROM python:3.7.4-buster

WORKDIR /home/app
COPY ./my-app/requirements.txt /home/app/requirements.txt
RUN pip install -r requirements.txt
COPY ./my-app/ /home/app

EXPOSE 8082
```

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

Answer: B

Question No : 4

What is an advantage of using configuration management tools to automate infrastructure services?

A. eliminates the need to run integration tests within the CI/CD pipeline
B. provides high native monitoring of services
C. eliminates the need for CI/CD tools
D. integrates with container orchestration

Answer: C

Question No : 5

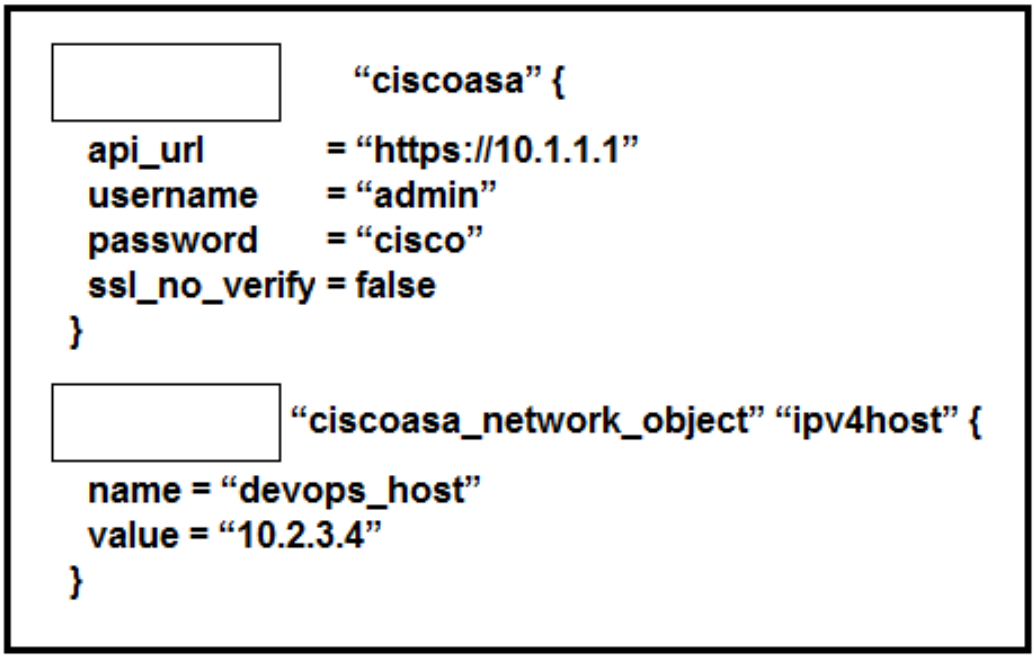
Which two elements help to secure your API keys? (Choose two.)

A. ramdomness
B. SHA1
C. triple AES
D. rotation
E. dictionary

Answer: A,C

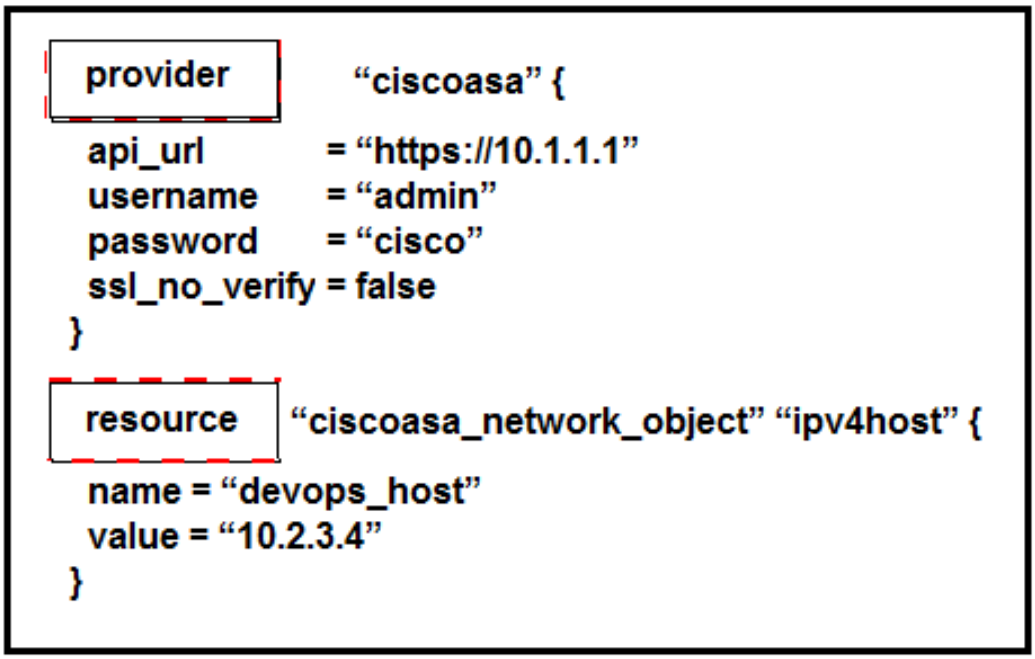
Question No : 6 DRAG DROP

Drag and drop the commands from the bottom onto the correct Terraform code in the exhibit to push a network object to a Cisco ASA Firewall device.



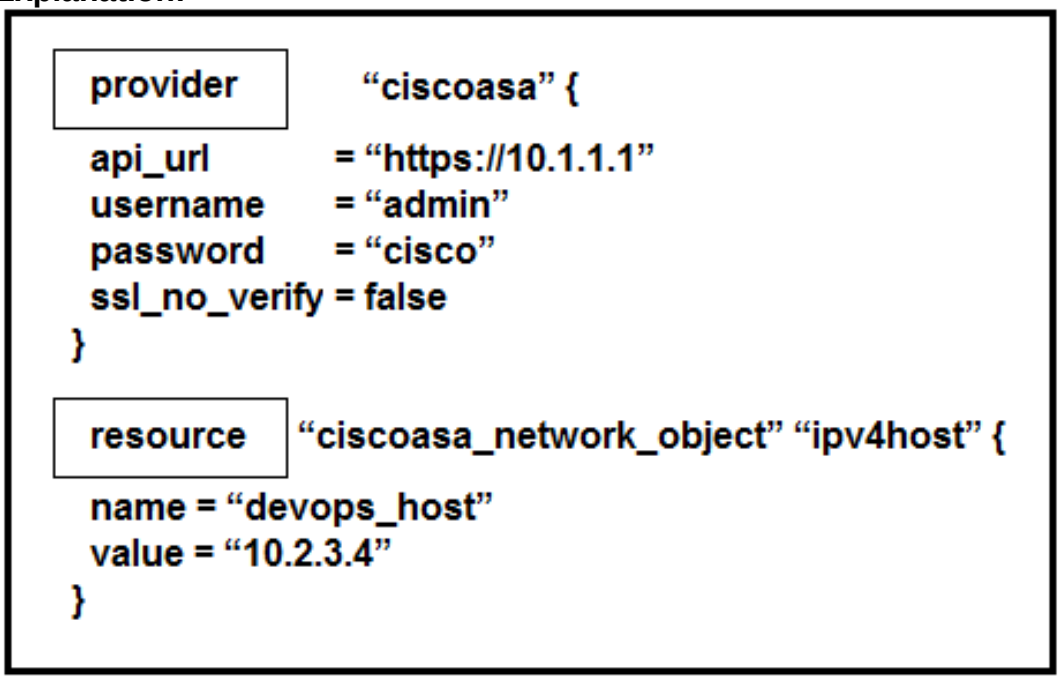
task	role
provider	module
firewall	resource

Answer:



task
role
provider
module
firewall
resource

Explanation:



Question No : 7

What is the impact of using the Drone.io CI/CD tool on the local installation step?

A. slows down the development
B. delays the deployment of components
C. speeds up the procedure
D. complicates the application process

Answer: C

Question No : 8

What is a benefit of Infrastructure as Code for the cloud?

A. It groups system downtime across the infrastructure
B. It enables the user to automate deployments
C. It does not require configuration.
D. It is a cost effective solution for services

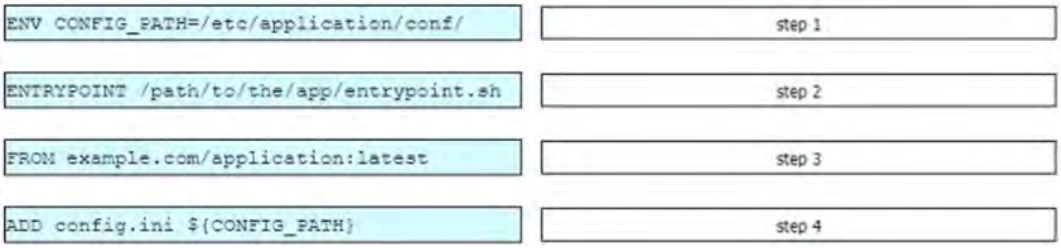
Answer: B

Question No : 9 DRAG DROP

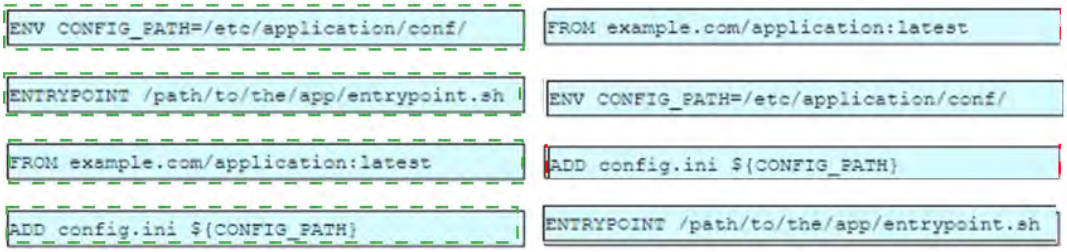
-

A developer is creating an application where each service uses a different operating system. The application components need to be isolated but must have the ability to communicate with each other.

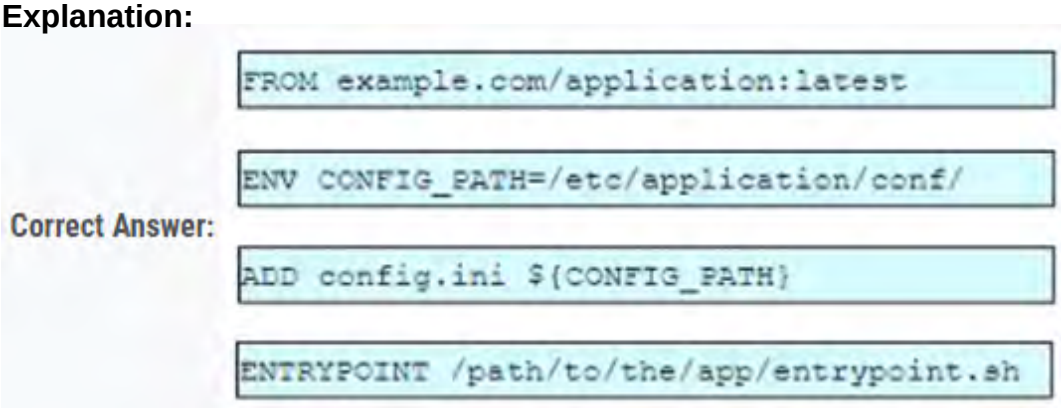
Drag and drop the entries from the left into the order on the right to create a Dockerfile that will accomplish this goal.



Answer:



Explanation:



Question No : 10

A precheck validation is being designed for the network state in a CI/CD pipeline This design requires:

• the CI/CD pipeline to spin up test instances.

• instances must be used to validate changes.

• changes must be validated prior to a continuous deployment workflow, and

• then push the changes to production

How should the pipeline target the required environment?

A. Use separate CI servers for each environment
B. Use different pipelines for each environment
C. Use separate Git repositories for each environment

D. Use different inventory files for each environment

Answer: D

Question No : 11

A DevOps engineer must build a Docker image to containerize an application. Then the image must be pushed to a repository on Docker Hub in a CI/CD pipeline using GitHub Actions.

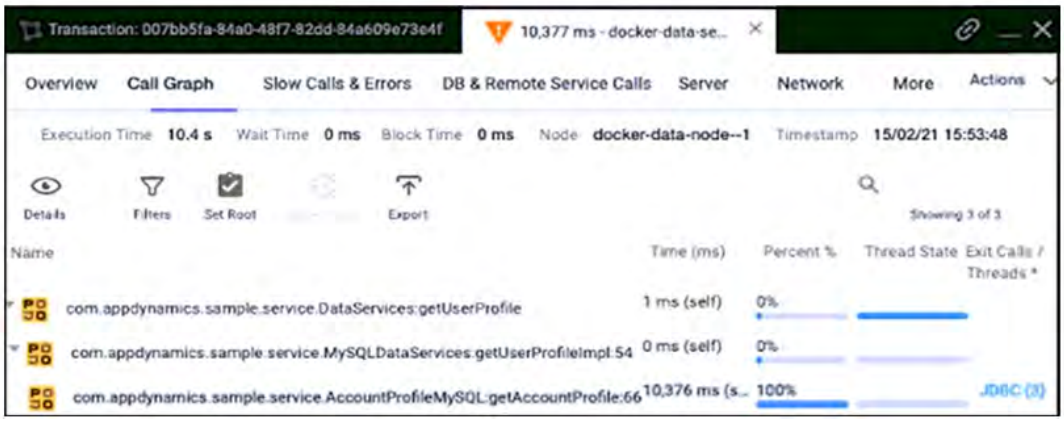
Which approach securely encrypts the Docker Hub access token as an environment variable within the CI/CD pipeline?

A. Store the access token with GitHub environment variables
B. Store the access token with GitHub encrypted secrets
C. Store the access token in an environment file in the repository
D. Hard code the access token in the repository with Base64 encoding

Answer: B

Question No : 12

Refer to the exhibit.



A distributed application contains data services that connect to databases via JDBC and to other remote services via HTTP. The overall response time is too long, and AppDynamics is used to investigate the root cause. From the application flow map, a specific data service running on Docker has been identified whose response time is over 10 seconds.

Which action resolves the issue?

A. Change from a JDBC call to a HTTP call to retrieve data faster

B. Run the AccountProfileMySQL service in Kubernetes
C. Explore the JDBC queries looking for optimization opportunities
D. Verify if the Docker container running MySQL is limiting CPU utilization

Answer: D

Question No : 13

Refer to the exhibit.

```
---
kind: pipeline
name: test1
platform:
  os: linux
  arch: amd64
steps:
- name: test
  image: postgres:9-alpine
  commands:
  - sleep 10
  - psql -U postgres -d test -h database -c "SELECT version();"
services:
- name: database
  image: postgres
  environment:
      POSTGRES_DB: test
      POSTGRES_USER: postgres
---
kind: pipeline
name: test2
platform:
  os: linux
  arch: amd64
steps:
- name: test
  image: postgres:9-alpine
  commands:
  - sleep 10
  - psql -U postgres -d test -h database -c "SELECT version();"
services:
- name: database
  image: postgres
  environment:
      POSTGRES_DB: test
      POSTGRES_USER: postgres
```

What is the user doing with Drone in this automated test?

A. testing Alpine Linux versus Ubuntu Linux
B. testing a PostgreSQL DB against multiple architectures

C. testing only the amd64 architecture
D. testing PostgreSQL deployment in an Alpine Linux VM

Answer: D

Question No : 14

A development team uses Kubernetes for application development. Any changes on ConfigMap are performed manually for each development, test, and production environment. The edits are performed to deploy applications. This approach causes inconsistent deployments across all environments.

Which practice improves the consistency of the deployments?

A. Implement environment variables within the ConfigMaps and store the variable definitions separately from the master branch where the ConfigMaps are stored
B. Generate the ConfigMaps specific to the environment by using a templating language such as Jinja2 and store the ConfigMaps in unique branches of a repository
C. In the master branch where the ConfigMaps are stored, create a branch for each environment that contains an environment-specific ConfigMap.
D. Create a unique repository for each environment that contains ConfigMaps for that environment to ensure that each environment can be deployed independently

Answer: A

Question No : 15

Refer to the exhibit.

```
$ kubectl create deployment hello-app --
image=k8s.gcr.io/echoserver:1.4
deployment.apps/hello-app created

$ kubectl get pods
NAME                         READY   STATUS    RESTARTS   AGE
hello-app-857b7d747f-xg8kj   1/1     Running   0          35s

$ kubectl get services
NAME         TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP   44h
```

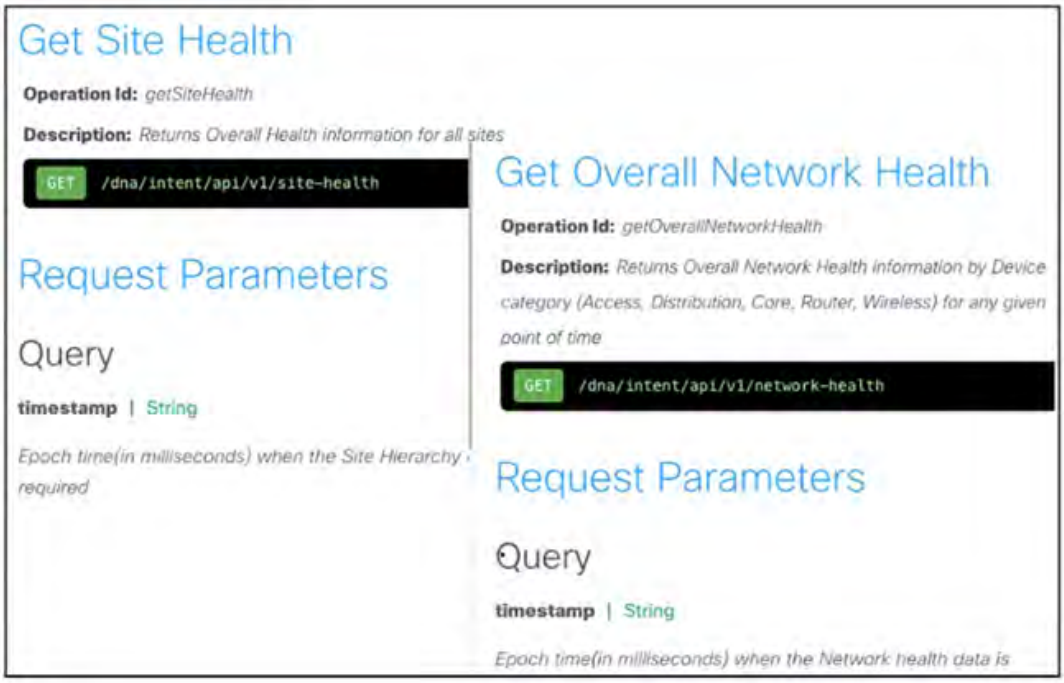
Which action allows the development team to reach the deployed application?

A. Create an init container to initialize routes for the containers in the pod
B. Create a service to expose the logic running in the pod

C. Delete the deployment and redeploy by using a ReplicaSet.
D. Delete the deployment and redeploy by using the latest tag for the container image

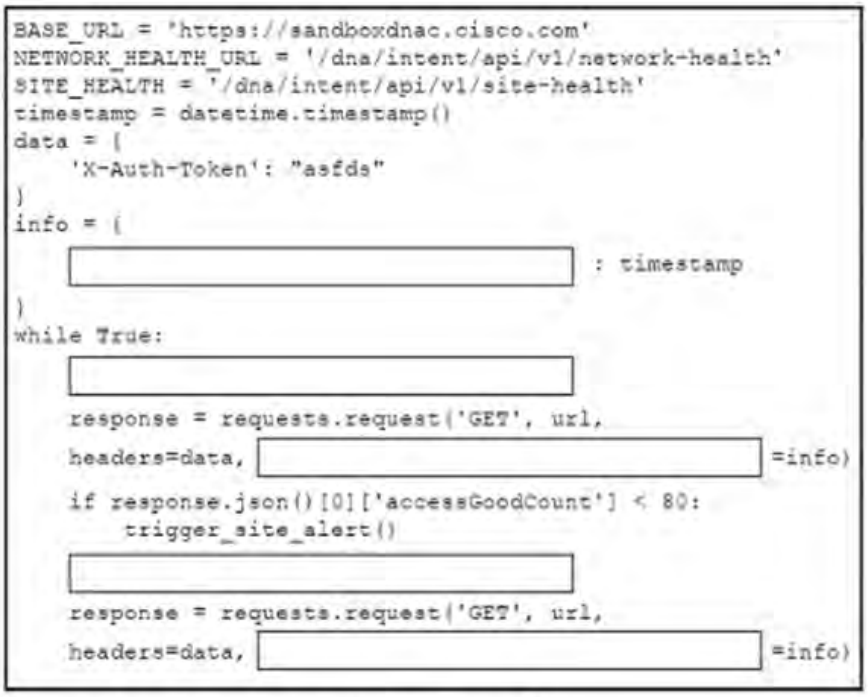
Answer: B

Question No : 16 DRAG DROP



Refer to the exhibit. A developer is creating a health check monitoring script that queries information from the Cisco DNA Center platform. The script must trigger an alert if a site health statistic named accessGoodCount drops below 80 and if a network statistic named latestHealthScore is 95 or less.

Drag and drop the code snippets from the bottom onto the blanks in the code to monitor the site and network health on a Cisco DNA Center platform instance. Options may be used more than once. Not all options are used.



```
BASE_URL = 'https://sandboxdnac.cisco.com'
NETWORK_HEALTH_URL = '/dna/intent/api/v1/network-health'
SITE_HEALTH = '/dna/intent/api/v1/site-health'
timestamp = datetime.timestamp()
data = {
    'X-Auth-Token': "asfds"
}
info = {
    [                              ] : timestamp
}
while True:
    [                              ]
    response = requests.request('GET', url,
    headers=data, [                ]=info)
    if response.json()[0]['accessGoodCount'] < 80:
        trigger_site_alert()
    [                              ]
    response = requests.request('GET', url,
    headers=data, [                ]=info)
```


Answer:

```
BASE_URL = 'https://sandboxdnac.cisco.com'
NETWORK_HEALTH_URL = '/dna/intent/api/v1/network-health'
SITE_HEALTH = '/dna/intent/api/v1/site-health'
timestamp = datetime.timestamp()
data = {
    'X-Auth-Token': "asfds"
}
info = {
    ['timestamp'               ] : timestamp
}
while True:
    [url = BASE_URL + SITE_HEALTH]
    response = requests.request('GET', url,
    headers=data, [params      ]=info)
    if response.json()[0]['accessGoodCount'] < 80:
        trigger_site_alert()
    [url = BASE_URL + NETWORK_HEALTH_URL]
    response = requests.request('GET', url,
    headers=data, [params      ]=info)
```

Explanation:

1. 'timestamp'
2. url = BASE_URL + SITE_HEALTH
3. params
4. url = BASE_URL + NETWORK_HEALTH_URL
5. params

Question No : 17

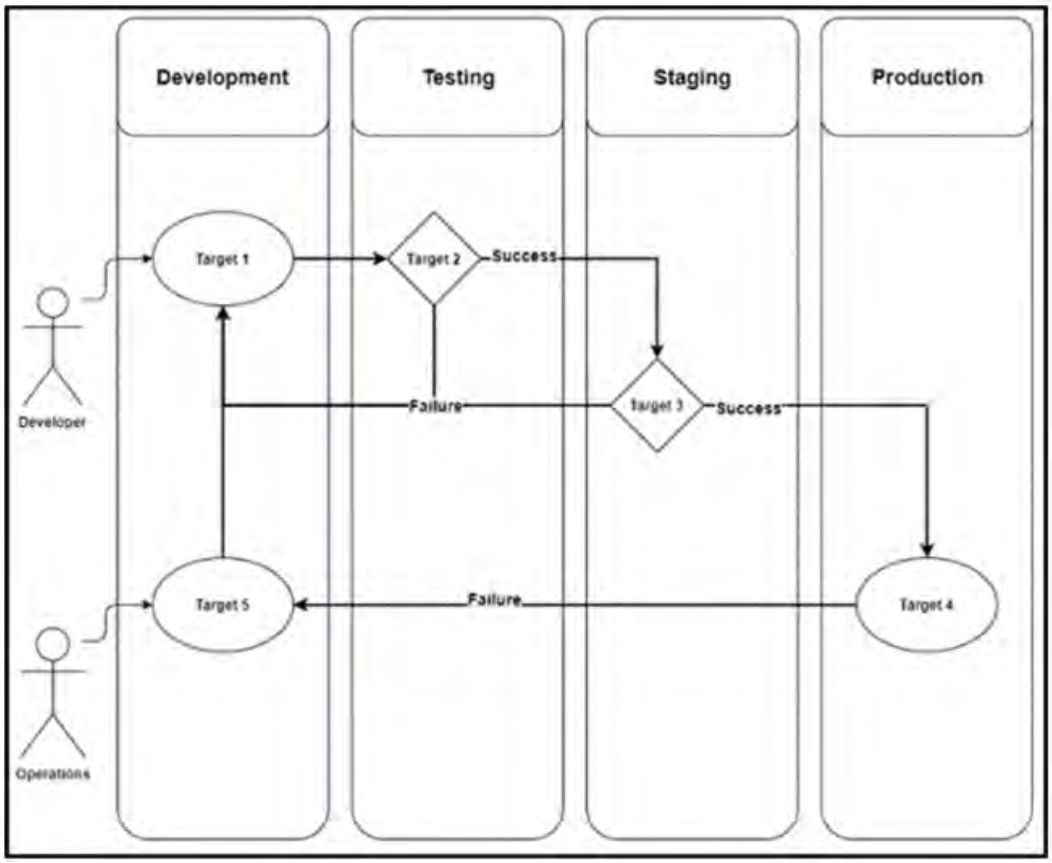
What are two testing scenarios of the chaos engineering principle? (Choose two.)

A. maxing out CPU cores on an Elasticsearch cluster
B. removing all users from a version control system
C. executing routine in driver code to emulate I/O errors
D. blocking developers' building access
E. unplugging a core switch device

Answer: A,E

Question No : 18 DRAG DROP

Refer to the exhibit.

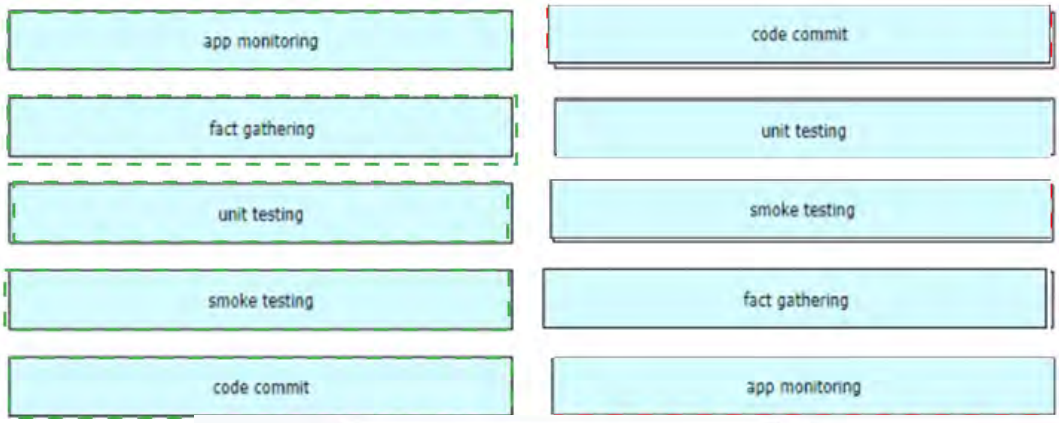


A development team is designing an application that will include multiple components and services. To streamline the process, CO/CD must be implemented.

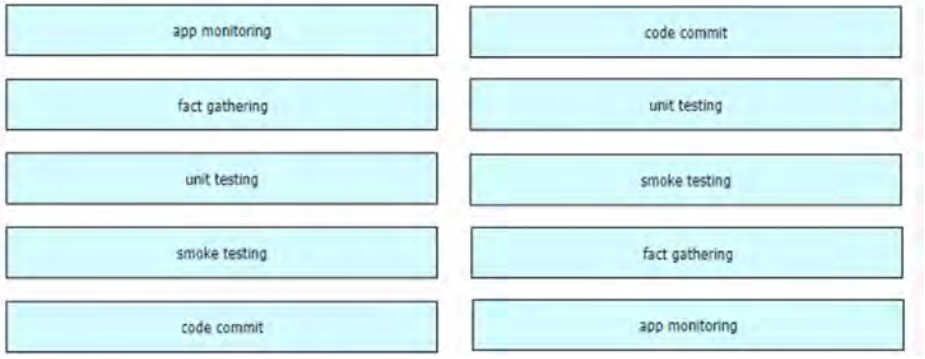
Drag and drop the CI/CD pipeline stages from the left onto the targets on the right.

app monitoring	target 1
fact gathering	target 2
unit testing	target 3
smoke testing	target 4
code commit	target 5

Answer:



Correct Answer:



Explanation:

Question No : 19

Refer to the exhibit.

```
import queue
import logging
from logging.handlers import QueueHandler, QueueListener

class Formatter:
    def __init__(self, formatters, default_formatter):
        self._formatters = formatters
        self._default_formatter = default_formatter
    def format(self, record):
        logger = logging.getLogger(record.name)
        while logger:
            if logger.name in self._formatters:
                formatter = self._formatters[logger.name]
                break
            else:
                logger = logger.parent
        else:
            formatter = self._default_formatter
        return formatter.format(record)
def main():
    que = queue.Queue(-1)
    queue_handler = QueueHandler(que)
    handler = logging.StreamHandler()
    listener = QueueListener(que, handler)
    root = logging.getLogger()
    root.addHandler(queue_handler)
    handler.setFormatter(Formatter({
        source: logging.Formatter('%(message)s -> ' + source),
        source + '.' + subsource: logging.Formatter('%(message)s -> ' + source +
'.' + subsource),
    },
        logging.Formatter('%(message)s -> <default>'),
    ))
    listener.start()
if __name__ == "__main__":
    main()
```

A Python script implements a logger server. The log receives a message from Base that contains this text: TextMessage. How is the log formatted?

A. Base Alter: TextMessage
B. Undefined: TextMessageBase
C. TextMessage -> Base
D. TextMessage -> Alter Base

Answer: C

Question No : 20

Which Kubernetes object is used to create a ClusterIP or NodePort?

A. service
B. pod
C. deployment
D. loadbalancer

Answer: A

Question No : 21

Refer to the exhibit.

```
---
apiVersion: v1
kind: Service
metadata:
  name: nginxapp-service
spec:
  ports:
  - port: 80
    name: http-port1
    targetPort: nginx-port
    protocol: TCP
  - port: 8080
    name: http-port2
    targetPort: nginx-port
    protocol: TCP
  selector:
    app: nginxapp
  type: LoadBalancer
```

What are the properties of the load balancer in a Kubernetes environment?

A. Has exposed ports 80 and 8080 to a private IP address and directs outgoing connections to the port named http-port1
B. Has exposed ports 80 and 8080 to a public IP address and directs incoming connections to the port named nginx-port
C. Forwards incoming traffic from the port named nginx-port to ports 80 and 8080 of nginxapp
D. Forwards any outgoing traffic from the port named nginx-port to exposed ports http-port1 and http-port2 of nginxapp

Answer: B

Question No : 22

An end user is seeing long web page load times on the internal business application that they are trying to view. The user is seeing this issue across multiple web browsers, and other users encounter the same issue. Which action should the system administrator take to start looking for the cause of this issue?