You've been tasked with collecting metrics from a MySQL server that is connected to one of your applications and import it into Prometheus. What would you use to collect these metrics?

(A) mysqld_exporter

(B) blackbox_exporter

(C) node_exporter

(D) memcached_exporter

What does the 405 status code mean?

A   Internal Server Error

B   Conflict

C   Forbidden

D   Not Found

E   Method Not Allowed

You are building a new Vagrantfile for your team. You are using ubuntu/trusty64 as the box and you need to make sure that the version of the box is constrained to v20180510.0.1 or greater. How would you constrain the box to this version?

(A) config.vm.box_version = v20180510.0.1

(B) config.vm.box_version > v20180510.0.1

(C) config.vm.box_version < v20180510.0.1

(D) config.vm.box_version >= v20180510.0.1

You need to create a volume for a future Docker deploy. You Execute docker volume create mysql-data. Where will the data for mysql-data be stored on the Docker server?

(A) /usr/lib/docker/volumes/mysql-data/_data

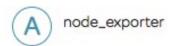(B) /var/docker/volumes/mysql-data/_data

(C) /var/lib/docker/volumes/mysql-data/_data

(D) /etc/docker/volumes/mysql-data/_data

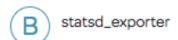You need to collect metrics on a TCP and have it imported into Prometheus. What exporter would you use?

(A) node_exporter

(B) haproxy_exporter

(C) statsd_exporter

(D) blackbox_exporter

You have StatsD-style metrics and you need to exports them as Prometheus metrics. What exporter would you use?

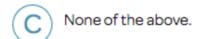**A** blackbox_exporter

B statsd_exporter

C consul_exporter

D memcached_exporter

You are explaining to a co-worker how Ansible works. They ask you, how does Ansible execute playbooks on nodes that it manages?

(A) Ansible use a server agent architecture.

(B) It uses OpenSSH

(C) None of the above.

(D) Ansible use an API that in installed on the node being managed.

A single unit best describes?

(A) Macrosesrive Architecture

(B) Microservice Architecture

(C) SOA Architecture

(D) Monolith Architecture

One of your developers would like to install Docker on their Windows development system. However, they are unable to find the 'Docker' package for installation. Which of the following packages will get them up and running on Windows?
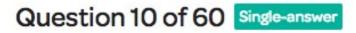
A   Docker Machine

B   Docker Swarm

C   Docker-Compose

D   Kubernetes

When sending a request which one of these is optional?

A Resource path

B Header

C HTTP verb

D Message Body

What are verbs in REST?

A It indicate whether a specific HTTP request has been successfully completed.

B It is used to tell the server what format the data should be returned in.

C Defines the operation that is going to be performed.

D Information stored in the header that is sent during a request.

When executing a POST request what status code is expected back with a successful request?

(A) 405

(B) 202

(C) 404

(D) 200

(E) 500

(F) 201

(G) 204

Your development team is having issues with their Kubernetes cluster. It appears that the Kubernetes master server is unable to query the state of the cluster nodes that have been joined to it. Which service related to Kubernetes, that is used for centralized cluster configuration and state management, might be causing the issue?

(A) etcd

(B) docker

(C) balanced

(D) serviced

You've received an alert that, that one of the Chef service may have crashed. You login to the Chef server to see what happened. What command would you execute to check the status of the Chef services?

(A) chef-server-ctl service-list
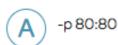
(B) chef-server-ctl gather-logs

(C) chef-server-ctl show-config

(D) chef-server-ctl status

Question 15 of 60 Single-answer

During the testing of a new Web based API your development team is currently testing in your Docker Swarm cluster, they would like to provide access to the Swarm service via the Host's IP. As a result, they want to map the service port to the matching port (port 80 for HTTP) on each host replicas are running on. Which option, when added to the swarm service creation command, would expose the service port to the matching host(s) port?

A) -p 80:80

B) --expose 80

C) -P 80:80

D) --publish published=80,target=80

You have just written a Chef cookbook to manage MySQL. What too would you use to enforce style conventions and best practices?

(A) ChefSpec

(B) InSpec

(C) Test Kitchen

(D) Cookstyle

What does REST stand for?
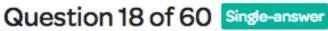
A Remove Edit Shape Terminate

B REquest Send Transmit

C REpeatable Session Transfer

D REpresentational State Transfer

What DSL does Puppet use?

A JavaScrpit

B A proprietary DSL is based on Ruby.

C Ruby

D YAML

What are the TDD Steps?

A   Write tests, write code, run tests and refactor tests.

B   Write code, write tests ad run tests.

C   Write tests, run failing tests, write code, run passing tests and refactor code.

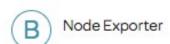D   Write code, write tests, run tests and refactor code.

What is used to collect metrics from ephemeral or batch job that won't be around long enough for Prometheus to scrape?

(A) Pushgatewary

(B) Node Exporter

(C) Pullgateway

(D) HA Proxy Exporter
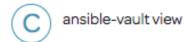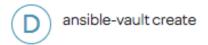
You are using Ansible to deploy out a microservice that uses an API key to access data from a third party REST API. What command would you use to encrypt the API key so that it can be included in your playbook?

A ansible-vault encrypt_string

B ansible-vault rekey

C ansible-vault view

D ansible-vault create

What are the four properties of a service in SOA?

A It is a series of dependent systems.

B It is self-contained.

C It may consist of other underlying services

D It logically represents a business activity with a specified outcome.
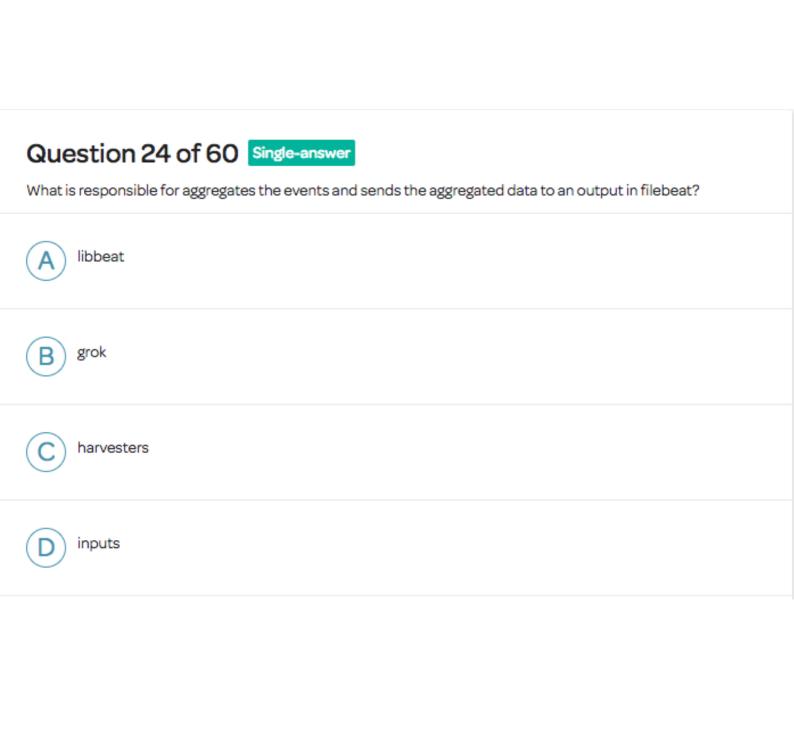
E It is a black box for its consumers.

F Services are encouraged to be large and monolithic.

G It is a white box for its consumers.

H Limited re-use is realized across the applications.

What is responsible for aggregates the events and sends the aggregated data to an output in filebeat?

A libbeat

B grok

C harvesters

D inputs

Your team has a Microservice that is ready to be deployed to AWS. You are using Packer to create AMIs that can be deployed out to EC2. What builder would you use?

(A) amazon-ebs

(B) hyperv-iso

(C) azure-arm

(D) docker

What are RESTful resources?

A   They are nouns of the web.

B   They are adjectives of the web.

C   They are the adverbs of the web.

D   They are verbs of the web.

You just started a job on a DevOps team that uses Chef to manage the infrastructure. What do you need to install to have access to Chef's testing tools?

(A) Chef Solo

(B) Chef Server Ctl

(C) Chef Client

(D) Chef DK

You are developing an API that will all list the songs an artist has uploaded. Which of the following resources would should you use?

A /artists/:id/songs

B /artists/:id/song

C /artists/songs

D /artist/:id/songs

Which lightweight protocols are good for microservices?

A SOAP

B REST

C Message queues

D Enterprise service bus

What is the Chef DSL?

(A) JavaScript

(B) Python

(C) Ruby

(D) Yaml

(E) A proprietary Ruby like syntax

Which of the following is an example of the User-Data format in Cloud Init?

(A) #cloud-config apt_upgrade: true

(B) #part-handler def handle_part(data,ctype,filename,payload):

data = the cloudinit object

ctype = "**begin**", "**end**", or the mime-type of the part that is being handled.

filename = the filename of the part (or a generated filename if none is present in mime data)

payload = the parts' content

(C) #!/bin/bash apt-get update -y apt-get install apache2 -y

(D) #upstart-job pre-start script

```
# prepare environment
mkdir -p /var/run/foo
```

end script

You are setting up a Vagrant environment and need to use a provisioner to run the following command 'yum update -y yum install wget git -y' for a Docker environment. Which provisioner would you use?

(A) Shell

(B) Docker

(C) Ansible

(D) Salt

Your development team has been testing a Docker Swarm service called 'apiserver'. They have concluded their tests and need for the service to be stopped (not actively running on the cluster). One of the following commands will stop the service, choose the correct one:

A   docker service delete apiserver

B   docker service pause apiserver

C   docker service stop apiserver

D   docker service rm apiserver

Single-answer

What is the PUT verb responsible for?

A   Reads data from a resource

B   Updates a resource

C   Deletes are resource

D   Creates are resource

While creating a Docker Compose environment to continue working on a web-based API for your organization, the contractor would like to expose certain ports to the underlying host system in order to allow other machines to access the related container service without having to worry about setting static routes. When creating the docker-compose file, which directive would you tell him to use to identify which ports he wants to expose?

A ports:

B host:

C redirect:

D remap:

Which codec works best for handling java exceptions or stacktrace messages?

(A) multiline

(B) grok

(C) file

(D) json

(E) beats

When using filebeat, what is a harvester?

A   The are responsible for reading the content of a single file.

B   They are responsible for managing the harvesters and finding all sources to read from.

C   They analyze network packet data.

D   They aggregates the events and sends the aggregated data to an output.

You are working on creating a Vagrant environment that will create a single VirtualBox instance called nodejs_dev. Which of these configurations would create this environment.

(A)
```
Vagrant.configure("2") do |config|
  config.vm.box = "box_name"
  config.vm.provider "hyper" do |v|
    v.name ="nodejs_dev"
  end
end
```

(B)
```
Vagrant.configure("2") do |config|
  config.vm.provider "docker" do |d|
    d.image = "nodejs/dev"
  end
end
```

(C)
```
Vagrant.configure("2") do |config|
  config.vm.box = "box_name"
  config.vm.provider "virtualbox" do |v|
    v.name = "nodejs_dev"
  end
end
```

(D)
```
Vagrant.configure("2") do |config|
  config.vm.box = "box_name"
  config.vm.provider "vmware_desktop" do |v|
    v.name ="nodejs_dev"
  end
end
```

You recently made a change to one of your Puppet modules that was deploy to your Puppet master server. You want to test it on one of your nodes that is managed by the master. You login to the node. What command should you execute to perform a Puppet run.

A · puppet agent

B · puppet apply

C · puppet module

D · puppet parser
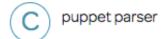
You are decommissioning an older server, and you need to clear out the certificate from your Puppet master's certificate authority. What Puppet command would you use to perform this action?

A) puppet agent

B) puppet module

C) puppet parser

D) puppet cert

One of the developers in your organization has successfully installed Docker Machine on his Windows system. He needs to verify the security configuration of his environment, which of the following commands can you have him run to show the keys and encryption info of his Docker Machine environment?

(A) docker-machine list --certs

(B) docker-machine --security-settings mytest

(C) docker-machine config mytest

(D) docker-machine ps mytest

Which of the following steps are performed by the chef-client?

(A) Registering and authenticating the node with the Chef server

(B) None of the above.

(C) Synchronizing cookbooks

(D) Looking for exceptions and notifications, handling each as required

(E) Building the node object

(F) All of the above.

You need to set up a grok filter to parse out a webserver log file. Event data will look like this: 55.3.244.1 GET /index.html 15824 0.043

The fields should look like this once parsed: client: 55.3.244.1 method: GET request: /index.html bytes: 15824 duration: 0.043

How would you setup your grok patter?

A %{IP:client} %{WORD:method} %{WORD:request} %{BYTES:bytes} %{DURATION:duration}

B %{CLIENT:ip} %{METHOD:word} %{REQUEST:uripathparam} %{BYTES:number} %{DURATION:number}

C %{IP:client} %{WORD:method} %{URIPATHPARAM:request} %{NUMBER:bytes} %{NUMBER:duration}

D %{NUMBER:client} %{WORD:method} %{WORD:request} %{NUMBER:bytes} %{NUMBER:duration}

You are managing a existing Graphite setups and need to export it's metrics to Prometheus. What would you use to accomplish this?

(A) graphite_exporter.

(B) haproxy_exporter

(C) blackbox_exporter

(D) memcached_exporter

You have made updates to your provisioner in Vagrant and need to updated the environment with the new changes. What command would you run to update your Vagrant environment?

A vagrant reload

B vagrant up

C Run vagrant destroy and then vagrant up

D vagrant provision

What is Cookstyle?

A A framework for testing and auditing your applications and infrastructure.

B A linting tool based on the RuboCop Ruby linting tool.

C A command-line tool that provides an interface between a local chef-repo and the Chef server.
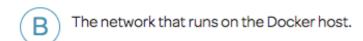
D An agent that runs locally on every node that is under management by Chef.

When deploying Docker on a single system or as part of multiple nodes in a cluster, a number of network types are automatically created. One of the networks is called a 'host network'. Which of the following statements best describes that network type?

A   It creates a distributed network among multiple Docker daemon hosts.

B   The network that runs on the Docker host.

C   It assigns a MAC address to each container's virtual network interface, making it appear to be a physical network interface directly connected to the physical network.

D   Is a Link Layer device which forwards traffic between network segments.

What are the three locations Ansible will search for ansible.cfg?

A /etc/ansible/

B /var/lib/ansible

C The directory where you execute ansible-playbook

D /etc/ansible/conf.d

E ~/

F /opt/ansible/conf.d

You are working on a Vagrantfile that will use Chef Solo to install apache by using a recipe. Specify the path to the cookbooks which is my_cookbooks. Which of these configuration would create this environment.

A

```
Vagrant.configure("2") do |config|
  config.vm.provision "chef_client" do |chef|
    chef.cookbooks_path = "my_cookbooks"
    chef.add_recipe "apache"
    chef.add_role "web"
  end
end
```

B

```
Vagrant.configure("2") do |config|
  config.vm.provision "chef_solo" do |chef|
    chef.cookbooks_path = "my_cookbooks"
    chef.add_recipe "apache"
  end
end
```

C

```
Vagrant.configure("2") do |config|
  config.vm.provision "chef_zero" do |chef|
    chef.add_recipe "apache"
  end
end
```

D

```
Vagrant.configure("2") do |config|
  config.vm.provision "chef_apply" do |chef|
    chef.recipe = &lt;&lt;-RECIPE
      package "apache2"
    RECIPE
  end
end
```

`Single-answer`

Your development team has inadvertently started their development environment without fully configuring the underlying host systems that the container is meant to access. Since several services are already connected, they don't want to kill the environment, but want to suspend it temporarily while they copy the build files and put them into place. From the list below, select the command that will allow you to suspend the environment's container/services without killing it off and requiring a full restart.

(A) docker service pause

(B) docker-compose suspend

(C) docker-compose pause

(D) docker swarm service pause

`Single-answer`

Your development team is working on a new web based API. They have a new environment that they want to load test for responsiveness and session behavior when load balanced across multiple nodes. Using Docker Swarm, you need to create a service called 'myservice' across the cluster of servers. In order to facilitate the load and balance testing, you will need to deploy the service with at least three replicas. Using one of the commands below, indicate the command that would accomplish all of these requirements:

A docker swarm service create myservice replicase 5 httpd

B docker swarm service create --name myservice --replicas=5 httpd

C docker-compose start --name myservice --replicas=5 httpd

D docker run --name myservice --replicas=5 httpd

Single-answer

What is Node Exporter used to collect?

(A) Hardware and OS metrics for Windows based systems.

(B) Hardware and OS metrics for *NIX based system.

(C) It exports Consul service heath to Prometheus.

(D) It pushes metrics from ephemeral systems.

`Single-answer`

You are being asked to build a Docker Compose environment for one of your developers. You need the image they will work with locally to be based on the default repository image called 'httpd:latest' with some customizations that you will add in the image after. What directive indicates to the build process the image to begin your environment build from?

(A) image_url:

(B) base:

(C) images:

(D) image:

Single-answer

Alertmanager can route alerts to which of the following receivers?

(A) None of these

(B) Email

(C) Pager Duty

(D) OpsGenie

(E) All of these

`Single-answer`

What was the original purpose of Prometheus?

A Monitor web services

B Collect metrics from ephemeral or batch job.

C Collect OS metrics

D Handles alerts sent by client applications.

Single-answer

One of the contractors working on a web API for your company has set up his own Docker Compose environment to run the web service the API is part of. He is not very familiar with Docker Compose and is unable to tell when the related service in the container is running so he can begin to access the API itself. Which command could you have him run in order to get a view into the processes that are running in his environment?

(A) docker-compose env list --ps

(B) docker-compose ps

(C) docker swarm service ps

(D) docker ps

Single-answer

In Packer, which build argument would you use to overwrite the metadata of a source image?

(A) changes

(B) override

(C) run_command

(D) discard

You are working a Packer file and need to execute the following commands:

```
apt-get update -y
apt-get install apache -y
```
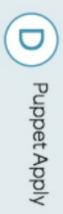
Which Provisioner would you use?

A Ansible

B Chef Solo

C Shell

D Puppet Apply

You are a developer who started working on a project for a client. The client doesn't have a dev server for you so you've decided to create a Vagrant environment. The production server will be trusty64. What command would you use to generate a minimal Vagrantfile with ubuntu/trusty64 as the default? The Vagrantfile will be generated with the following continence:

```
Vagrant.configure("2") do |config|
    config.vm.box = "ubuntu/trusty64"
end
```

A   vagrant init -m

B   vagrant init ubuntu/trusty64 -m

C   vagrant init

D   vagrant init ubuntu/trusty64

Single-answer

You have built up a lot of outdated box files that need to be removed. What command would you use to removed these old box files?

(A) vagrant box delete

(B) vagrant box remove

(C) vagrant box prune

(D) vagrant box repackage

Single-answer

When executing a vagrant box list -i, what file in the Vagrant Box file is used to supply additional information?

(A) info.json

(B) metadata.json

(C) Vagrantfile

(D) package.box

1. A
2. E
3. D
4. C
5. A
6. B
7. B
8. B
9. A or C
10. D
11. C
12. D
13. A
14. D
15. A
16. D
17. D
18. B
19. C (TDD= Test Driven Developpement)
20. C
21. A
22. A
23. B-C-D-E
24. C
25. A
26. A
27. D
28. D
29. A
30. C
31.

32. A
33. D
34. B
35. A (Docker-compose yaml file: 1. ports->Ports will be exposed to the host machine. 2. expose->Expose ports without publishing them to the host machine)
36. B
37. D
38. C
39. B
40. D
41. F
42. C
43. A
44. D
45. B
46. B
47. A,C,E
48. B
49. C
50. C
51. B (For windows: WMI exporter)
52. D
53. E
54. D !!
55. B
56. B !!
57. C
58. B
59. C