

Who is the creator of Python?

Options

Guido Van Rossum

Mukesh Ambani

Jeff Bezos

Tim Berners-Lee

When was Python created

Options

1989

1990

1991

1992

Python can work on different platforms as well?

Options

True

False

What can we write to check what version of Python is running on our system in the Windows Command Prompt?

Options

py

pi

psi

p

What is the other option besides writing "py" to check the version in the Windows CMD?

Options

py -version

python -version

pyi --version

python --version

What is the full form of IDE?

Options

Integrated Development Execution

Internal Degraded Environment

Integrated Development Environment

Internal Development Environment

An IDE consists of all the necessary Development tools that a programmer needs in one place.

Options

True

False

What is used to get an output in Python

Options

out.print(" ")

print(" ")

cout(" ")

printoutput(" ")

Write the correct input : _____("Hello World")

Options

print

out

execute

result

What is the correct syntax from the following

Options

print("Hello")

print["Hello"]

print{"Hello"}

print(["hello"]))

Insert the correct syntax to convert x into a floating point number. $x=10$ $x= \underline{\hspace{2cm}}(x)$

Options

print

float

int

complex

Insert the correct syntax to convert x into a integer. $x = 5.5$ $x = \underline{\hspace{2cm}}(x)$

Options

int

float

complex

print

Divide 10 by 2, and print the result print(10 __ 2)

Options

/

//

%

#

What is the error when you enter the wrong name of a module?

Options

ModuleNotFoundError

SyntaxError

IncorrectModuleError

OutOfBoundsError

Select the right syntax to create a function called my_function

Options

def my_function:

define my_function:

func my_function;

create funct my_function;

What error can we expect from the following: from math import cube

Options

SyntaxError

ModuleNotFoundError

ImportError

StopIteration

What error can we expect from the following: it= iter([1,2,3]) next(it) next(it) next(it)
next(it)

Options

SyntaxError

ModuleNotFoundError

ImportError

StopIteration

Create a variable named bike and assign the value Kawasaki H2R to it

Options

bike= Kawasaki H2R

"bike" = Kawasaki H2R

bike= "Kawasaki H2R"

"KawasakiH2R"= bike

Create a variable named x and assign the value of integer 50 to it

Options

x="50"

x: 50

"x"=50

x=50

Display the sum of 5 + 10, using two variables: x and y

Options

x=y y = 10 print(x +y)

x=5 y = x print(x +y)

x=10 y =5 print(x +y)

Select the illegal variable name

Options

2my-first_name = "John"

_my-first_name = "John"

--my-first_name = "John"

my2-first_name = "John"

What is used to print the length of a string

Options

len()

length()

type.length()

fulllength()

What can we use to get the first character of a string txt= "Banana"

Options

x=txt(0)

x=txt(1)

x=txt[0]

x=txt[1]

What can we use to get the characters from index 2 to index 4 (llo) in txt = "Hello, World"

Options

x= txt[2:4]

x= txt[1:4]

x= txt[2:5]

x= txt[2:6]



Select the right syntax for the if condition

Options

a=10 b=20 if a is greater than b: print("Hello World")

a=10 b=20 if a>b: print("Hello World")

a=10 b=20 if a>b; print("Hello World")

Fill in the blank if a> b: print("True") ____: print("False")

Options

otherwise:

then:

elif:

else:

What will be the output for the following program: `a = 50 b = 10 if a == b: print("1")
elif a > b : print("2") else: print("3")`

Options

1

2

3

Select the right syntax to create a function called `my_function`

Options

`def my_function:`

`define my_function:`

`func my_function;`

`create funct my_function;`

What will be the output of the following program: `fruits = ["apple", "banana", "cherry"] for x in fruits: if x == "banana": print(x)`

Options

`cherry`

`apple`

`apple cherry`

`banana`

The following code will stop the loop if i is 3 Fill in the blanks to perform the same
same `i = 1 _____ i < 6: if i == 3: break i += 1`

Options

do while

for

if

while

What will be the output for the following code: `for x in range(6): print(x)`

Options

0 1 2 3 4 5 6

1 2 3 4 5 6

0 1 2 3 4 5

1 2 3 4 5

What is the output of the following code: `def my_function(fname, lname):
print(lname + " " + fname) my_function("Coco", "Sheth")`

Options

Coco Sheth

Sheth Coco

CocoSheth

ShethCoco

Output for the following: def my_function(x): return 5 * x
print(my_function(3)) print(my_function(5)) print(my_function(9))

Options

3 5 9

3x 5x 9x

15 25 45

1 3 5

What will be in the blank space to print the second item: fruits = ["apple", "banana", "cherry"] print(____)

Options

fruits[1]

fruits[3]

fruits[2]

fruits[0]

What do we use to add something to a list

Options

upper()

lower()

append()

camelcase()

Fill in the blank to use a range of indexes to print the third, fourth, and fifth item in the list fruits = ["apple", "banana", "cherry", "orange", "kiwi", "melon", "mango"]
print(fruits[__])

Options

2:5

1:5

3:5

3:6

Use the correct syntax to print the first item in the fruits tuple. fruits = ("apple", "banana", "cherry") print(fruits[__])

Options

0

1

2

3

Use the correct syntax to print the number of items in the fruits tuple. fruits = ("apple", "banana", "cherry")

Options

print(length(fruits))

print(len(fruits))

print(len(tuple(fruits)))

print(totallength(fruits))

Use negative indexing to print the last item in the tuple. fruits = ("apple", "banana", "cherry") print(fruits[____])

Options

-0

-1

-2

-3

How can we print the value of the "model" key of the car dictionary. car = { "brand": "Ford", "model": "Mustang", "year": 1964 }

Options

print(car.get["model"])

car.get("model")

print(car.get("model"))

print(car("model"))

What can we do to change the value of the year from 1964 to 2020: car = { "brand": "Ford", "model": "Mustang", "year": 1964 }

Options

car["year"] = 2020

car{year= 2020}

car.year= 2020

car("year") = 2020

What can we use to remove something from a dictionary

Options

append()

get()

pop()

remove()

What is the output of the following code: fruits = ["apple", "banana", "cherry", "kiwi", "mango"] newlist = [x for x in fruits if "a" in x] print(newlist)

Options

['apple', 'banana', 'mango']

["apple", "banana", "kiwi", "mango"]

["apple", "cherry", "kiwi", "mango"]

["banana", "cherry", "kiwi", "mango"]

What is the output of the following code: fruits = ["apple", "banana", "cherry", "kiwi", "mango"] newlist = [x for x in fruits] print(newlist)

Options

['apple', 'banana', 'mango']

["apple", "cherry", "kiwi", "mango"]

["banana", "cherry", "kiwi", "mango"]

['apple', 'banana', 'cherry', 'kiwi', 'mango']

What is the output of the following code: newlist = [x for x in range(10) if x < 5]
print(newlist)

Options

[0, 1, 2, 3, 4, 5, 6]

[0, 1, 2, 3, 4]

[1, 2, 3, 4, 5]

[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

Which of the following is used to open a file for reading?

Options

"w"

"x"

"a"

"r"

Which of the following is used to add data to the end of the file?

Options

"w"

"x"

"a"

"r"

Which of the following is the right syntax to open a file for reading.

Options

f = open{"demofile.txt"}

f =file.open("demofile.txt")

f = open(demofile.txt)

f = open["demofile.txt"]

A breakpoint is a tool to permanently suspend execution of your program at a certain point

Options

True

False

Breakpoints provide a tool that enables you to suspend execution where and when you need

Options

True

False

You can set break points on as many lines as you want

Options

True

False

What does the variables tab show

Options

Binary Values of Variable

Hexadecimal Values of Variable

Values of Variables

What will be the output for the following code:
class Person:
 def __init__(self, name, age):
 self.name = name
 self.age = age
 p1 = Person("John", 36)
 print(p1.name)
 print(p1.age)

Options

John 36

36 John

John36

36John

Fill in the blanks:
class Person:
 def _____(self, name, age):
 self.name = name
 self.age = age

Options

init

__init

__init__

init



What will be the output of the following code:
class MyClass:
x = 5 ** 10
p1 = MyClass()
print(p1.x)

Options

5

10

100000

9765625



Lambda is an

Options

Anonymous Function

Assigned Function

Regular Function

Magic Function

Lambdas are defined using def

Options

True

False

What will be the output of the following code:
def fun(variable): letters =
['a', 'e', 'i', 'o', 'u'] if (variable in letters): return True else: return False
sequence = ['g', 'e', 'e', 'j', 'k', 's', 'p', 'r'] filtered = filter(fun, sequence)
print('The filtered letters are:') for s in filtered: print(s)

Options

e e

g e e j k s p r

a e i o u

a e i o u g e e j k s p r



What is the code to install a new package

Options

pip download

pip install

pip integrate

pip manage install

Which of the following will show you all the packages that are present

Options

pip show

pip packagelist

pip showlist

pip list

What is the CMD code to upgrade our pip

Options

pip install --upgrade pip

pip upgrade

pip manage --pip upgrade

pip install --pip upgrade

What is the index position for the first sheet

Options

0

1

2

```
What will be in the blank to print cell A3  
import xlrd  
loc = ("path of file")  
wb = xlrd.open_workbook(loc)  
sheet = wb.sheet_by_index(0)  
print(sheet.cell_value(____ , ____))
```

Options

1,3

0,3

1,3

2,0



What module do we use to connect to MySQL

Options

mysql.connector

connector.mysql

myconnector.sql

sql.connector

What does using nrows do

Options

Give us No Rows

Give the the Number of Rows

Gives us Null Rows

It's non-existent



Which one of the following function is used to execute an SQL query

Options

query= execute

query(execute)

execute(query)

What does the mydb.cursor() do

Options

It executes any command

You can create a cursor object

It commands SQL

It runs Python and gives us SQL data

Neither of all

Which one of the following function gets all the values of a selected table

Options

fetchall()

getall()

showall()

printall()

_____ is a general term for taking each item of something, one after another

Options

Iterator

Generator

Runner

Iteration

An iterable is an object that has an _____ method

Options

__loop__

__dir__

__iterator__

__iter__

Whenever you use a For loop, or map, or a list comprehension, etc. in Python, the
____ method is used.

Options

next()

loop()

prev()

rotate()

In object-oriented programming, _____ is the process of transforming data structures or objects into a format that can be offloaded to a file, memory cache or transmitted over the network connection and the same object can be reconstructed later in the same or different environment.

Options

Serialisation

Dumping

Pixelise

File Writing

Serialization is converting the object into the stream of bytes also called _____ an object, and the reverse process of rebuilding the object back from the stream of bytes is deserialization or _____.

Options

storing , restoring

dumping , loading

marshalling , unmarshalling

saving , restoring

What happens to the data stored in the txt file using pickle.dump

Options

Data is stored as the input

Data is stored as bytes

_____ is the Creator or Father of JSON.

Options

Guido van Rossum

James Gosling

Douglas Crockford

John Cardamom

How to prettyprint a JSON file in Python?

Options

json.dumps(parsed)

json.dumps(parsed, indent=0, sort_keys=True)

json.dumps(parsed, indent=4, sort_keys=True)

json.dumps(parsed, sort_keys=True)

JSON Objects begins and ends with ___ and ____.

Options

(and)

{ and }

[and]

< and >

What is the main difference between bare metal and virtual machines?

Options

Bare metal runs directly on hardware, while virtual machines run on a layer of virtualization software.

Bare metal is less secure than virtual machines.

Bare metal is easier to manage than virtual machines.

Bare metal can only run one operating system at a time, while virtual machines can run multiple.

What is the main difference between virtual machines and containers?

Options

Virtual machines have their own kernel and operating system, while containers share the host kernel and operating system.

Containers are less secure than virtual machines.

Containers are easier to manage than virtual machines.

Containers can run on bare metal, while virtual machines require a hypervisor.

Which technology provides the highest level of isolation between applications?

Options

Bare metal

Virtual machines

Containers

They provide the same level of isolation.

Which technology is the most lightweight and provides the fastest start-up time for applications?

Options

Bare metal

Virtual machines

Containers

They all provide the same start-up time.

Which technology is the most efficient in terms of resource utilization?

Options

Bare metal

Virtual machines

Containers

They all provide the same level of resource utilization.

Which technology provides the most flexibility in terms of running different operating systems and applications?

Options

Bare metal

Virtual machines

Containers

They all provide the same level of flexibility.

Which technology is the easiest to deploy and manage?

Options

Bare metal

Virtual machines

Containers

They all require the same level of deployment and management.

Which technology is the most suitable for running legacy applications?

Options

Bare metal

Virtual machines

Containers

They all provide the same level of suitability for legacy applications.

Which technology provides the highest level of security?

Options

Bare metal

Virtual machines

Containers

They all provide the same level of security.

Which technology is the most suitable for running stateless applications?

Options

Bare metal

Virtual machines

Containers

They all provide the same level of suitability for stateless applications.

In what year was Docker first released to the public?

Options

2010

2012

2014

2016

What was the original name of Docker?

Options

dotcloud

dockerd

containerd

runc

Which company initially sponsored the development of Docker?

Options

Google

Amazon

Microsoft

dotCloud

What was the original purpose of Docker?

Options

To simplify the deployment of web applications

To provide a more efficient virtualization solution

To make it easier to develop software on multiple platforms

To create a new type of container technology

What is containerd?

Options

A container runtime for Docker

A container orchestration platform

A container image format

A container registry

What is runc?

Options

A container runtime for Docker

A container orchestration platform

A container image format

A container registry

What is the relationship between Docker, containerd, and runc?

Options

Docker is built on top of containerd, which is built on top of runc

Docker and containerd are interchangeable, while runc is used as a low-level container runtime

Docker and containerd are separate but related projects, while runc is a standalone project

Docker includes both containerd and runc as part of its core functionality

What was the reason for the spin-off of containerd from Docker?

Options

To provide a more lightweight and modular container runtime

To focus on the development of Docker Swarm as an orchestration platform

To comply with open source licensing requirements

To better support containerized applications in multi-cloud environments

What is Docker Engine?

Options

A container image registry

A container orchestration platform

A container runtime

A container management tool

What is the function of Docker Engine?

Options

To create and manage Docker containers

To build Docker images

To manage container networking

To deploy Docker containers to a cluster of hosts

What is the main component of Docker Engine?

Options

Docker daemon

Docker client

Docker API

Docker CLI

Which command is used to create a new Network Namespace in Linux?

Options

ip netns add

ip namespace create

netns create

namespace add

What is the function of the Docker daemon?

Options

To manage and monitor Docker containers

To execute Docker commands issued by the user

To manage Docker images

To manage Docker networks

What is the difference between a Docker image and a Docker container?

Options

A Docker image is a lightweight executable package that includes everything needed to run an application, while a Docker container is a running instance of an image.

A Docker image is a running instance of an application, while a Docker container is a package of dependencies needed to run an application.

A Docker image is used to build Docker containers, while a Docker container is used to manage Docker images.

A Docker image and a Docker container are the same thing.

What is the purpose of Docker images?

Options

To create containers

To run applications

To store and distribute applications

To manage networks

What is the role of the Docker client?

Options

To create and manage Docker images

To interact with the Docker daemon and issue commands

To manage container networking

To deploy Docker containers to a cluster of hosts

What is the Docker API?

Options

A web-based interface for managing Docker containers

A set of commands for interacting with Docker Engine

A set of programming interfaces for automating Docker operations

A graphical user interface for managing Docker images

How does Docker Engine use namespaces and control groups to isolate containers?

Options

By creating a separate file system for each container

By limiting the amount of system resources each container can access

By assigning each container a unique network address

By running each container in a separate process space

What is the purpose of the Docker registry?

Options

To store Docker images

To manage Docker containers

To provide an API for interacting with Docker Engine

To provide a graphical user interface for managing Docker images

Which command is used to create a new Docker container?

Options

docker ps

docker run

docker build

docker create

What is the difference between a Docker registry and a Docker repository?

Options

A Docker registry is a collection of Docker repositories.

A Docker repository is a collection of Docker images.

A Docker registry is a way to distribute Docker images.

A Docker repository is a way to manage Docker images.

Which command is used to list all running Docker containers?

Options

docker ps

docker run

docker build

docker create

What is the purpose of a Dockerfile?

Options

To run Docker containers

To create Docker images

To manage Docker networks

To deploy Docker applications

Which command is used to remove a Docker container?

Options

docker rm

docker stop

docker kill

docker pause

Which command is used to push a Docker image to a Docker registry?

Options

docker push

docker pull

docker save

docker load

What is the purpose of the "net" namespace in Linux?

Options

To isolate the process ID space from other namespaces

To isolate the network namespace from other namespaces

To isolate the mount namespace from other namespaces

To isolate the user namespace from other namespaces

What is the purpose of the "pid" namespace in Linux?

Options

To isolate the process ID space from other namespaces

To isolate the network namespace from other namespaces

To isolate the mount namespace from other namespaces

To isolate the user namespace from other namespaces

What is the purpose of namespaces in Linux?

Options

To provide virtualization for processes and system resources

To group related processes and resources

To manage system permissions and access control

To provide a graphical user interface for Linux

What is the purpose of the "mnt" namespace in Linux?

Options

To isolate the process ID space from other namespaces

To isolate the network namespace from other namespaces

To isolate the mount namespace from other namespaces

To isolate the user namespace from other namespaces

Which command is used to enter a namespace in Linux?

Options

nsenter

nsattach

nsset

nsexec

What is the purpose of the "user" namespace in Linux?

Options

To isolate the process ID space from other namespaces

To isolate the network namespace from other namespaces

To isolate the mount namespace from other namespaces

To isolate user and group IDs from other namespaces

How does Network Namespace work in Docker container networking?

Options

Each container is assigned a unique IP address and network interface within its own Network Namespace

All containers share the same IP address and network interface within a shared Network Namespace

Containers are connected directly to the physical network interface of the host machine

Network Namespace is not used in Docker container networking

What are control groups in Linux?

Options

A mechanism to limit resource usage of a process or group of processes

A way to group files and directories for easy access

A type of Linux user account with limited permissions

A tool to compress and decompress files in Linux



What is an Overlay file system in Docker?

Options

A file system used to manage container images

A file system used to manage Docker volumes

A file system used to manage Docker networks

A file system used to manage Docker containers

What is the purpose of the Overlay file system in Docker?

Options

To provide a mechanism for sharing files between containers

To provide a mechanism for persistent storage in containers

To provide a layered file system for efficient use of storage

To provide a mechanism for managing Docker images

What is the purpose of the Overlay driver in Docker?

Options

To manage container networks

To manage container volumes

To manage container storage

To manage container file systems

\

What is the advantage of using Overlay file system in Docker?

Options

It provides a faster way to manage container images

It provides a mechanism for sharing files between containers

It provides a layered file system for efficient use of storage

It provides a mechanism for managing Docker volumes

What is the purpose of Docker Bridge network?

Options

To connect containers to a physical network

To connect multiple containers together in a private network

To connect containers to the internet

To connect containers to a VPN

What is the default network driver in Docker?

Options

Bridge

Host

Overlay

None

Which command is used to create a new Docker Bridge network?

Options

docker network create

docker network bridge

docker network connect

docker network ls

How does Docker Bridge network work?

Options

It creates a separate virtual network interface for each container

It creates a single virtual network interface for all containers on the same network

It connects containers to the host network interface

It connects containers to the internet

What is a Network Namespace in Linux?

Options

A mechanism for isolating network resources such as network interfaces, IP addresses, and routing tables

A mechanism for isolating disk resources such as hard disks and partitions

A mechanism for isolating CPU and memory resources

A mechanism for isolating user accounts and permissions



How is Network Namespace related to Docker container networking?

Options

Each Docker container has its own Network Namespace

Docker Bridge network is implemented using Network Namespace

Docker Overlay network is implemented using Network Namespace

Docker container networking is not related to Network Namespace

What is the purpose of Network Namespace in Docker container networking?

Options

To provide isolation and separation of network resources between containers

To provide access to host network resources from within a container

To allow communication between containers on different networks

To allow containers to communicate directly with physical network interfaces

What is the main difference between a bridge and a switch?

Options

A bridge connects two networks together, while a switch connects multiple devices within a network.

A bridge operates at the data link layer, while a switch operates at the network layer.

A bridge is a hardware device, while a switch can be a hardware or software device.

A bridge is slower than a switch.

Containers running on host machines

Options

Share underlying host kernel

Use separate kernel for each container

Are bundled with their own Operating systems

Main use case of Virtual machines are

Options

To emulate properties of different physical servers

To provide a secure and self-contained sandbox inside which applications are run, abstracting OS and physical server

To allow multiple OS to be hosted on server simultaneously

Containers running on Linux kernel are nothing but

Options

Virtual Machines

Processes

Application

Linux namespaces are used to

Options

Provide grouping of processes

Provide an isolated view of different resources like filesystem for each process

Provide naming of containers

Which namespace allows layering of images

Options

Mount

PID

UTS

Which namespace allows process to have root access while still restricting admin privileges on host machine

Options

PID

Cgroup

IPC

Cgroups are used to

Options

Restrict processes usage of various types of resources like CPU, RAM, Memory

Provide grouping of processes

Allow containers to reuse underlying kernel

What is significance of /proc folder in linux filesystem?

Options

Contains details of all process that are running or have run

Contains details of containers

Contains all configurations

How does containers isolate hostname?

Options

Using UTS linux namespace

Using PID linux namespace

Using User linux namespace

How does containers have separate view of processes?

Options

Using UTS linux namespace

Using PID linux namespace

Using User linux namespace

What is chroot?

Options

Change root directory of underlying filesystem on running kernel

Login as root

Give admin access to process

How can kernel restrict number of processes that run in containers?

Options

Using pids control group

Using cpu control group

Using memory control group

What are the advantage of layers in container images?

Options

Allows for smaller downloads as only deltas are downloaded and base layers are shared

Allows for faster startup of containers

Allows for communication between containers

Kubernetes is fundamentally a

Options

Peer to Peer application

Master worker application

Monolithic application

What is function of Kubernetes Control plane

Options

Provides common channel for pods to communicate with each other

Schedules and controls where pods are deployed to maintain desired state

Stores state of Kubernetes

What is ETCD?

Options

API server that exposes Kubernetes API

Component that watches for newly created pods

Consistent and highly available key value store used as Kubernetes backing store

Which component makes sure that containers are running in pod

Options

Docker

Kubelet

Kubeproxy

What is recommended way to inform Kubernetes to run multiple instances of your service?

Options

Using pods

Using Replicaset

Using deployments

What is command to create docker image for spring boot application in maven?

Options

mvn spring-boot:build-image

mvn build

mvn assemble

What are buildpacks?

Options

They are scripts or templates that build docker images according to best practices and modularize them to be shared across organizations

They are configurations that build spring boot applications

They are install commands to install docker images

How does Kubernetes determine which pods to forward traffic to?

Options

Using label selector defined in deployments yaml

Using network rules

Using proxy

What is nodeport service?

Options

Makes service available only inside the cluster

Makes service available outside the cluster

Defines a load balancer that is used to direct traffic to Kubernetes

What command can deploy a deployment.yaml to kubernetes?

Options

kubectl apply -f deployment.yaml

kubectl get services

kubectl get endpoints

What command is an imperative way to creating a pod in Kubernetes

Options

kubectl run

kubectl apply

kubectl describe

What command shows main properties of a pod?

Options

kubectl logs

kubectl describe

kubectl show

What is a LoadBalancer service type?

Options

It makes service available only inside the cluster

It makes service available outside the cluster

It exposes the service externally using NodePort and ClusterIP services automatically created by cloud provider

How do you create a pod that is ephemeral, meaning it runs once only?

Options

kubectl run --restart=Never

kubectl run --restart=OnFailure

None of the above

How do you create pod in a declarative manner?

Options

kubectl run

kubectl apply -f

None of the above

How do you specify a port to use for nodeport?

Options

By specifying port property in the service deployment yaml

It is not possible as Nodeport creates a port at random. This is because different services are exposed from same ip using nodeport.

None of the above

How do you redirect traffic to different services running in Kubernetes?

Options

Using an ingress controller

Using a LoadBalancer type service

None of the above

How to check logs of a pod

Options

kubectl describe

kubectl show

kubectl logs

How do you ssh into a pod?

Options

kubectl ssh

kubectl exec -it /bin/sh

None of the above

How do you get list of supported entities in Kubernetes?

Options

kubectl api-resources

kubectl get entities

None of the above

What are deployments?

Options

It is used to provide declarative updates for Pods and ReplicaSets

It is used to manage containers

None of the above

What are the different strategies for update?

Options

Recreate, Destroy

Rolling update, Recreate

Rolling update, destroy

What is max surge?

Options

Maximum number of pods that can be created over and above existing number of pod defined in replica set.

Maximum number of pods that can be created over and above existing number of pod defined in replica set.

Average number of pods that can be created over and above existing number of pod defined in replica set.

What is max unavailability?

Options

Maximum number of pods that can be terminated during update

Minimum number of pods that can be terminated during update

Average number of pods that can be terminated during update

What is default for max surge?

Options

10%

25%

50%

What is default for max unavailability?

Options

10%

25%

50%

How can you view all kubernetes apis?

Options

kubectl api-resources

kubectl get apis

kubectl list apis

What is recreate strategy?

Options

All older pods are terminated before newer pods are provisioned

Few older pods coexist with newer pods

Newer pods are provisioned with all older pods

What is function of batch job type pod?

Options

Long running pod that services web requests

Pod used to run a task once. Useful for configuration and initiation

Pod that executes multiple times to handle use-cases like health check

What is a cronjob pod and why is it used?

Options

Used to run a task periodically. Pod is created and run periodically according to unix-style cron expression. Used for polling, health checks, status updates.

Run only once based on the scheduled ISO datetime string. Used to execute tasks on certain dates, like when daylight saving needs to set.

Long run pod that is terminated based of the specified ISO datetime string. Used to stop pod on given date, like stop ecommerce offer after December 31

What does pod status CrashLoopBackoff indicate?

Options

The pod is terminating each time the pod is restarted, resulting in multiple restarts, as Kubernetes is trying to maintain the state of long running pod. Due to multiple restarts the Pod restart is being delayed exponentially

The pod is terminating as is it in an infinite loop

Pod restart failed due to failure to fetch the image

What is the purpose of a queue in microservices architecture?

Options

Redirecting requests

Loadbalancing requests

Decoupling microservices, and allowing asynchronous handling of requests

How do you increase replicas dynamically?

Options

HorizontalPodAutoscaler

Autoscaling groups

Replicaset

What is command to scale replicas manually?

Options

kubectl scale --replicas= deployment/

kubectl increment --replicas= deployment/

kubectl loadbalance --replicas= deployment/

What is a Service?

Options

Service is a rest end point used by kubernetes to check pod status

Service is Kubernetes API to expose a deployment to other services or externally

Service is Kubernetes option to set health checks

What is a config map?

Options

A ConfigMap is a Kubernetes API object that lets you store configuration for other objects like pods, deployments, etc to use and it promotes reuse of your deployment artifacts

A ConfigMap is a Kubernetes API object that lets you share deployment templates in your organization

A ConfigMap is a Kubernetes API object that lets you modify running deployments seamlessly

What are the different ways of creating a config map?

Options

Directories, Files, Literal values, Generator

FTP, SSH, TELNET

Batch Job and cron job

Which way can config map be consumed?

Options

Inside a shell command on the container

Add a file in read-only volume, for the application to read

From Kubernetes internal APIs



What is the purpose of Secret in Kubernetes?

Options

For authorizing API requests in Kubernetes cluster

To store and manage sensitive information, such as passwords, OAuth tokens, and ssh keys.

To authenticate users to your Kubernetes cluster



How can secret be consumed?

Options

As files, environment variables,
ImagePullSecret

As key value pair

As templates

What are the supported kubernetes secret types?

Options

RSA

SSL

TLS

Which secret type is suitable for storing OAUTH tokens?

Options

kubernetes.io/service-account-token

Opaque

kubernetes.io/basic-auth

What is a GIT?

Options

A version control system

A programming language

A remote repository

A nickname for GitHub

Git is same as GitHub?

Options

True

False

What is the command to get the installed version of Git?

Options

getGitVersion

git --version

git help version

gitVersion

Who is attributed with inventing Git?

Options

Junio Hamano

James Gosling

Linus Torvalds

After you initialize a new repository and create a file named git-quiz.html, which following commands will not work if issued?

Options

Git add git-quiz.htm

Git status

Git add

Git commit -m "git quiz web file added"



Which command should you use to initialize a new repository?

Options

Git bash

git install

git init

git start

Under which circumstance should you use a single dash within a Git command, as opposed to a double dash?

Options

When use a single character option

When using a multicharacter option

When issuing Git commands with multiple options

When referencing a Git alias



Which file can you configure to ensure that certain file types are never committed to the local Git repository?

Options

Ignore.git

.gitignore

Gitignore.tx

What is the default text editor for the bash shell with a Windows-based Git install?

Options

Emacs

Vim

Notepad++

Bash

) If you want to add your code branch to the main project, you send a _____ to GitHub?

Options

Pull request

Fork request

Code branch request

Push request



What is the command to get the current status of the Git repository?

Options

Git config -status

Git getStatus

-status

Git status



How long does GitHub keep audit logs?

Options

1 year

2 years

Infinite

Which of the following statements is true about reviewing audit trails in GIT?

Options

GIT provides a built-in tool for reviewing audit trails

GIT audit trails can only be reviewed by system administrators

GIT audit trails can be used to track changes to files, commits, and branches



Which of the following statements is true about branching and merging in GIT?

Options

Branching and merging are complex operations that should only be performed by experienced developers

GIT allows for unlimited branching and merging, enabling a flexible development workflow

Branching and merging can only be done on the main branch of a repository

Merging branches in GIT always results in conflicts that need to be manually resolved

Git history is automatically deleted in?

Options

Every year

Every two weeks

Every month

Commit history is never automatically deleted

What does polymorphism mean in programming?

Options

The ability of a class to hide its internal details.

The ability of a class to be inherited.

The ability to perform a single action in different ways.

The ability to create multiple instances of a class.

Encapsulation in programming refers to:

Options

Breaking down code into smaller functions.

Hiding the internal implementation details of an object and exposing only what's necessary.

Creating multiple instances of a class.

Including multiple data types in a single variable.

What does code portability refer to?

Options

The ability to run code on any platform without modifications.

Writing code that is only compatible with a specific platform.

Writing code that cannot be reused.

Code reusability is achieved by using:

Options

Long, unstructured code.

Short, isolated functions.

Large classes with many attributes.

Copy-pasting code blocks.

What is recursion in programming?

Options

A loop structure that repeats indefinitely.

A function that calls other functions.

A technique where a function calls itself to solve a problem.

A method to create multiple instances of a class.

What is the key benefit of using recursion in programming?

Options

It always results in faster execution.

It simplifies the code structure.

It can elegantly solve complex problems.

It eliminates the need for variables.

What is the importance of idempotence in configuration management?

Options

It ensures that configuration management tools automatically update configurations to match the latest state of the system.

It provides predictability, reducing the chances of unexpected changes during multiple runs.

It allows configuration management tools to define the desired state of the system.

It automatically creates new resources, even if they already exist in the system.



What does idempotence mean in the context of configuration management?

Options

Applying the same configuration multiple times may result in different desired states.

Configuration management tools automatically update configurations to match the latest state of the system.

The desired state of the system is defined by the user, and configuration management tools work to converge the actual state to match it.

Applying the same configuration multiple times results in the same desired state, regardless of the current state of the system.

What is one of the significant benefits of configuration management with Chef and Puppet?

Options

It reduces the need for version control and testing environments.

It automates business operations entirely, eliminating the need for human intervention.

It ensures that system configurations remain inconsistent across multiple servers and environments.

It provides consistency and predictability in system configurations, reducing the risk of unexpected behavior.



Which of the following is an example of how configuration management can reduce downtime and human errors?

Options

Manually setting up servers, leading to consistent setups and reduced human errors.

Manually deploying applications, reducing the risk of misconfigurations and service disruptions.

Using version control to track changes in configuration code.

Automating server provisioning and application deployment, ensuring consistent setups and reducing human errors.



What is Puppet Hiera used for in Puppet configuration management?

Options

Managing Docker containers within a Puppet environment.

Storing and managing configuration data separately from Puppet manifests.

Executing scripts on nodes for specialized configurations.

Providing a graphical user interface for Puppet manifest creation.



What is the benefit of using a hierarchical approach in Puppet Hiera?

Options

It simplifies the process of writing complex Puppet manifests.

It allows for the creation of new Puppet modules.

It enables data to be defined at different levels and overridden as needed.



It eliminates the need for version control for Puppet configurations.

What does the term "puppetizing" refer to in the context of the lecture?

Options

Creating detailed documentation for Puppet manifests.

The process of migrating from Chef to Puppet for configuration management.

Writing complex scripts in Puppet's declarative language.

Applying modular configurations using Chef.



Which of the following is a key step in the migration process from Chef to Puppet?

Options

Writing all Puppet manifests at once to ensure a quick transition.

Avoiding the testing phase to speed up the migration process.

Migrating all components simultaneously to reduce the overall duration.

Gradually migrating components or applications to minimize disruptions and identify issues early.



What is a significant benefit of contributing to the Chef community by creating and sharing cookbooks?

Options

Financial compensation for cookbook downloads and contributions.

Gaining access to exclusive Chef community chat channels.

Deepening your understanding of Chef and receiving valuable feedback.

Exclusively benefiting from others' contributions without giving back.

What is one of the best practices for contributing to the Chef community with your cookbooks?

Options

Keeping your cookbooks private and not sharing them with others.

Creating cookbooks without proper documentation or testing.

Designing cookbooks with modularity and reusability in mind.

Ignoring community engagement and not seeking feedback.

What are Chef Data Bags primarily used for?

Options

Storing configuration files in JSON format.

Managing network connections and protocols.

Storing sensitive information like passwords and API keys.

Organizing cookbook recipes and attributes.

Which best practice helps in securing sensitive data stored in Chef Data Bags?

Options

Sharing encryption keys openly among all team members.

Creating Data Bags with public access for ease of use.

Encrypting Data Bag items using appropriate encryption methods.

Avoiding encryption to simplify data retrieval in recipes.

What is a best practice for using Puppet Forge Gems?

Options

Never refer to module documentation to maintain creativity.

Always install the latest version of a module to stay updated.

Test modules in production environments without prior validation.

Check module documentation and user reviews before usage.

What is Puppet Forge?

Options

A platform for playing online puppetry games.

A community-driven repository of pre-built Puppet modules.

A coding convention for writing Puppet manifests.

A virtual environment for testing Puppet configurations.

What is an essential step when publishing your Puppet module to Puppet Forge?

Options

Keeping the module's metadata and documentation private.

Creating a Puppet Forge account using an alias or pseudonym.

Following semantic versioning to indicate compatibility and changes.

Skipping the version tagging process to avoid confusion.

What is one of the benefits of contributing your Puppet modules to Puppet Forge?

Options

Financial compensation for each module download.

An exclusive subscription to premium Puppet resources.

Receiving valuable feedback and collaborative improvements.

Automatically gaining recognition as an expert in the Puppet community.

What is the benefit of using attributes in Chef cookbooks?

Options

Attributes allow you to hardcode values for better performance.

Attributes help you avoid using libraries and custom resources.

Attributes provide a way to customize configurations for different environments or nodes.

Attributes increase the complexity of recipes and make them harder to maintain.



What is the purpose of modularizing recipes in Chef cookbooks?

Options

To make the codebase larger and more complex.

To add unnecessary layers of abstraction.

To ensure that each recipe focuses on a single responsibility.

To make recipes less maintainable.

What is Puppet's Domain-Specific Language (DSL) used for?

Options

Defining the desired state of IT infrastructure.

Automating server provisioning and application deployment.

Writing complex code for advanced configurations.

Managing version control and collaboration in Puppet manifests.

Which of the following is an example of using Puppet's DSL to manage a file?

Options

```
package { 'nginx': ensure => installed }
```

```
file { '/etc/motd': ensure => present,
      content => "Welcome to my server!\n"
}
```

```
service { 'httpd': ensure => running }
```

```
user { 'john': ensure => present }
```

What is Puppet Apply used for?

Options

Managing Puppet agents on managed nodes.

Applying Puppet manifests without a central Puppet server.

Managing SSH configurations for secure communication.

Testing Chef cookbooks in a local environment.

Which of the following is an example of using Puppet Apply?

Options

puppet install /path/to/manifest.pp

puppet agent /path/to/manifest.pp

puppet apply /path/to/manifest.pp

puppet run /path/to/manifest.pp

What is the role of the Puppet Master in the Puppet Master-Slave setup?

Options

Running Puppet Agents on managed nodes.

Serving as the central hub for configuration management and storing Puppet code.

Generating SSL certificates for secure communication.

Applying configurations to ensure nodes' states align with the desired state.



What does the Puppet Agent do in the Puppet Master-Slave setup?

Options

Signs the Puppet Master's SSL certificates.

Compiles catalogs specific to each node.

Protects the Puppet Master's private key.

Requests configurations from the Puppet Master and applies them to managed nodes.



What is the role of External Node Classifiers (ENCs) in Puppet's configuration management?

Options

They determine which configuration manifests are applied to specific nodes.

They act as the central hub for configuration management and store Puppet code.

They provide a way to manage node classification data outside Puppet manifests.

They allow Puppet Agents to communicate securely with the Puppet Master.

What is the main advantage of using External Node Classifiers in Puppet?

Options

They provide data consistency and validation for node classifications.

They enhance the security and access control of Puppet's node classification.

They allow for dynamic classification, enabling changes in node assignments without modifying Puppet manifests.

They ensure error handling and graceful degradation during Puppet communication issues.



What is the main goal of effective manifest design in Puppet?

Options

To automate and maintain the desired state of IT infrastructure.

To organize Puppet code in a way that ensures readability, modularity, and easy maintenance.

To implement the Role-Profile design pattern for classifying nodes.

To create self-contained modules with descriptive names.

Which design pattern is commonly used in Puppet for organizing manifests, where roles represent the function of a node and profiles define the components required to fulfill that role?

Options

Modular Design Pattern

Role-Profile Design Pattern

Encapsulation Design Pattern

Inheritance Design Pattern

Which conditional statement in Puppet allows you to evaluate additional conditions if the initial 'if' condition is false?

Options

unless

elsif

ifelse

else

What are Puppet's conditional statements used for?

Options

To automate and maintain the desired state of IT infrastructure.

To make decisions and apply configurations based on node-specific conditions.

To define the structure of Puppet manifests.

To modularize Puppet code for reusability.

Which directory in a Puppet module stores static files required by the module?

Options

templates

manifests

facts.d

files

What is a Puppet module?

Options

A self-contained unit of configuration code that groups related resources, classes, and files.

A collection of Puppet manifests used to manage specific IT infrastructure components.

A directory that holds template files for Puppet manifests.

An external tool used for Puppet's external node classification.



What is the main purpose of the Roles and Profiles pattern in Puppet?

Options

To simplify Puppet's conditional statements.

To separate the roles and responsibilities of nodes (roles) from the configuration details (profiles).

To organize Puppet code into modules, templates, and files.

To enhance Puppet's classification abilities using external node classifiers.

How is the Roles and Profiles pattern typically implemented in Puppet modules?

Options

By organizing Puppet code into directories like 'manifests' and 'files'.

By using the 'role::' prefix for roles and the 'profile::' prefix for profiles.

By utilizing Puppet's conditional statements like 'if' and 'elsif'.

By creating separate Puppet manifests for each role and profile.

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By utilizing Puppet's conditional statements like 'if' and 'elsif'.

By creating separate Puppet manifests for each role and profile.

What is the main purpose of orchestration in the context of configuration management with Chef and Puppet?

Options

To automate the installation of packages on a single server.

To manually configure multiple servers in a synchronized manner.

To streamline complex tasks and coordinate multiple servers simultaneously.

To enhance the performance of Puppet's external node classifiers.



Which command can be used for orchestrating package installation across multiple nodes simultaneously using Puppet Bolt?

Options

chef-apply webserver-setup.rb --hosts web1,web2,web3

bolt command run 'apt-get install nginx' --nodes web1,web2,web3

puppet apply /path/to/manifest.pp

puppet agent -t

What is DevOps?

Options

A software development methodology

A collaboration between developers and operations teams

A set of tools for automating deployment

All of the above

Which of the following is a primary goal of DevOps?

Options

Faster development cycles

Reducing communication between teams

Increasing silos between development and operations

Delaying software releases

What is the primary emphasis of DevOps?

Options

Individual expertise

Collaboration and communication

Data analysis

Competition

How can DevOps practices benefit organizations?

Options

Slower software development cycles

Reduced quality

Increased operational inefficiency

Shortened time-to-market and improved quality

What is DevOps?

Options

A programming language.

A collaborative approach integrating development and operations.

A design methodology.

An algorithm for data analysis.

What is the primary benefit of DevOps?

Options

Increasing software complexity.

Slowing down development cycles.

Enhancing collaboration between teams.

Isolating development and operations.

What is the purpose of adopting Continuous Integration/Continuous Deployment (CI/CD) pipelines in development?

Options

Resolving version control conflicts

Automating testing and deployment

Fostering communication between teams

Ensuring consistent environments

Which practice promotes collaboration between Dev and Ops teams?

Options

Siloed communication

Waterfall development

DevOps

Version conflicts

What was the main focus of the Daimler case study?

Options

Traditional manufacturing techniques

Digital transformation in the automotive industry

Agricultural innovations

Cultural diversity in multinational corporations

Which factor contributed significantly to Daimler's success in the case study?

Options

Strict adherence to traditional practices

Avoidance of technological advancements

Embracing agility, innovation, and customer-centricity

Ignoring the competitive landscape

What is a significant driver for the adoption of DevOps practices in the market?

Options

Decreased reliance on cloud services

Slower application development

Enhanced collaboration between teams

Manual software deployment

Which technology trend has contributed to optimizing resource utilization in the DevOps landscape?

Options

Mainframe computing

Virtualization

Waterfall development

Spreadsheet software

What is the primary focus of Agile methodology?

Options

Following strict documentation processes.

Adapting to changing requirements and customer feedback.

Rigidly adhering to predetermined project plans.

Completing extensive testing phases.

Which Agile principle emphasizes the importance of individuals, interactions, and working solutions?

Options

Incremental progress.

Extensive documentation.

Customer satisfaction.

People and collaboration.

What does the Agile Manifesto prioritize?

Options

Comprehensive documentation over working software.

Customer collaboration over contract negotiation.

Following a plan over responding to change.

Processes and tools over individuals and interactions.

What is the main focus of the Agile Manifesto?

Options

Following rigid plans and documentation.

Maximizing profits through cost-cutting.

Delivering value to customers through collaboration and adaptability.

Minimizing communication between team members.

What is the primary focus of Agile Principles?

Options

Comprehensive documentation

Following a strict plan

Delivering working software

Maximizing individual tasks

How does Agile handle changing requirements?

Options

By resisting any changes after initial planning

By adjusting goals and plans based on feedback

By requiring a complete restart of the project

By ignoring customer input

What is the main emphasis of Agile methodologies?

Options

Comprehensive documentation

Predictive planning

Customer collaboration and adaptability

Rigid processes

Which Agile methodology emphasizes visualizing work and workflow optimization?

Options

Waterfall

Scrum

Kanban

RAD (Rapid Application Development)

What is a key characteristic of Agile Leadership?

Options

Centralized decision-making

Embracing rigidity

Encouraging adaptability

Limiting collaboration

Which principle is emphasized in Agile Leadership?

Options

Following a fixed plan
regardless of changes

Minimizing customer
involvement

Valuing processes over
individuals

Iterative progress and
continuous improvement

What is the primary focus of Agile with DevOps?

Options

Sequential development

Waterfall methodology

Cross-functional collaboration

Documentation-heavy
processes

What is the goal of DevOps in the context of Agile with DevOps?

Options

Slowing down software delivery

Creating silos between development and operations

Automating processes and improving collaboration

Reducing customer feedback

What are the three pillars of Scrum theory?

Options

Planning,
Monitoring

Transparency,
Adaptation

Leadership,
Documentation

Analysis,
Implementation

Execution,

Inspection,

Design,

What is the primary purpose of time-boxed iterations (sprints) in Scrum?

Options

To rush through development phases quickly

To ensure all tasks are completed without delay

To allow for flexibility in project timelines

To promote consistent progress and adaptation

Which Scrum value encourages team members to address challenges, be innovative, and take calculated risks?

Options

Focus

Respect

Courage

Commitment

What is the main role of the Scrum Master?

Options

Prioritizing tasks

Facilitating the process

Managing the budget

Writing code

What is a key benefit of the Scrum framework?

Options

Following a strict plan

Avoiding all changes during a project

Delivering incremental value

Completing all work at the end of a project

What is the purpose of the "Definition of Done" (DoD) in Scrum?

Options

To define the scope of a sprint

To outline the tasks for the Scrum Master

To establish criteria for a complete and potentially shippable product increment

To determine the number of user stories in a sprint

Which of the following aspects may be included in the Definition of Done (DoD) for a product increment?

Options

Only functional requirements and code quality

Only user stories and Scrum Master tasks

Functional requirements, code quality, testing, documentation, and more

Only integration testing and performance testing



What is a core responsibility of the Development Team during a Sprint in Scrum?

Options

Creating the Product Backlog

Setting priorities for the Sprint

Maintaining the Sprint Backlog

Delivering a potentially shippable product increment

Which of the following best describes the concept of idempotency in configuration management?

Options

It refers to the process of managing and maintaining the state of systems and applications in a consistent and automated way.

It means applying a configuration multiple times will have different results each time.

It is a crucial concept in configuration management where applying a configuration multiple times has the same result as applying it once.

It is the principle of organizing configurations into modules containing manifests and associated files.

[Next](#)

What is the primary difference between Chef and Puppet?

Options

Chef uses a master-agent architecture, while Puppet uses a distributed architecture.

Chef relies on a central server (Chef Server) to store and distribute configurations, whereas Puppet uses a central Puppet Master for the same purpose.

Chef is a commercial configuration management tool, while Puppet is an open-source tool.

Chef's declarative language allows you to define what the system should look like, while Puppet uses a Ruby-based DSL for the same purpose.

[Submit](#)

What does "puppetizing" refer to in the context of configuration management?

Options

The process of adopting Puppet as your configuration management tool and rewriting existing configurations in Puppet's declarative language.

The practice of automating and maintaining the desired state of your infrastructure using Puppet manifests.

The term used to describe the migration from Puppet to Chef for configuration management.

The act of organizing Puppet configurations into modules for better maintainability and reusability.

Which step is NOT a part of the migration process from Chef to Puppet?

Options

Assessment: Analyzing existing Chef configurations to identify components and dependencies.

Learning Puppet Syntax:
Familiarizing yourself with Puppet's declarative language and resource types.

Incremental Migration: Gradually migrating components or applications from Puppet to Chef.

Testing and Validation:
Thoroughly testing Puppet manifests to ensure they achieve the desired state and are idempotent.

Submit

What is the purpose of using attributes in Chef cookbooks?

Options

Attributes define the steps needed to configure specific parts of the system.

Attributes allow you to extract shared logic and functions into libraries for reuse.

Attributes are variables that store data and customize configurations for different environments or nodes.

Attributes trigger actions between resources to achieve the desired state.

[Next](#)

Which of the following best represents the "Single Responsibility Principle" in the context of Chef recipes?

Options

Each recipe should have multiple responsibilities to avoid duplication of code.

Recipes should focus on configuring different aspects of the system to enhance flexibility.

Each recipe should have a single responsibility, focusing on configuring one aspect of the system.

Recipes should include notifications to trigger actions between different resources.

Submit

What is the primary purpose of Puppet Forge Gems?

Options

Puppet Forge Gems are individual packages available for download from Puppet Forge that encapsulate reusable Puppet code and configurations.

Puppet Forge Gems are Puppet modules used to package Chef code, data, and files into a single cohesive unit.

Puppet Forge Gems are ready-made Puppet modules that serve as a public repository for sharing and maintaining Puppet configurations.

Puppet Forge Gems are specific categories of Puppet modules designed to manage the installation of software packages.

What should you consider before using a Puppet Forge Gem in your production environment?

Options

The popularity and maintenance status of the module.

The browsing history of Puppet Forge website.

The number of examples provided in the module's documentation.

The number of reviews the module has received on Puppet Forge.

Submit

1

Choose the correct answer

[View All Questions](#)

What are Data Bags in Chef used for?

Options

Data Bags in Chef are containers for storing JSON data, typically used to hold sensitive information such as passwords, secret keys, and certificates.

Data Bags in Chef are units of organization used to package Puppet code, data, and files into a single cohesive unit.

Data Bags in Chef are individual packages available for download from Puppet Forge that encapsulate reusable Puppet code and configurations.

Data Bags in Chef are specific categories of Puppet modules designed to manage the installation of software packages.

[Next](#)

2

Choose the correct answer

[View All Questions](#)

What is the purpose of encrypting Data Bag Items in Chef?

Options

To secure sensitive data from unauthorized access.

To make Data Bags compatible with Puppet modules.

To increase the performance of the Chef server.

To allow multiple administrators to modify Data Bag items simultaneously.

Submit

What is the purpose of Puppet Hiera in Puppet configuration management?

Options

Puppet Hiera is a tool used to store and manage Puppet manifests separately from configuration data.

Puppet Hiera is an open-source configuration management tool that follows the Infrastructure as Code (IaC) principle.

Puppet Hiera is a data lookup tool that allows you to store and manage configuration data separately from Puppet manifests.

Puppet Hiera is a separate tool for encrypting sensitive data in Puppet configurations.

What is the typical hierarchy order used in Puppet Hiera to look up configuration data?

Options

Node-specific data, role-specific data, environment-specific data, common data.

Environment-specific data, common data, node-specific data, role-specific data.

Role-specific data, environment-specific data, common data, node-specific data.

Common data, environment-specific data, node-specific data, role-specific data.

Submit

What is one of the benefits of contributing to the Chef community by creating and sharing cookbooks?

Options

Access to premium support and additional features from Chef.

Gaining valuable feedback and improvement suggestions from the community.

Automatically qualifying for a certification in Chef configuration management.

Exclusive access to new Chef cookbook releases.

[Next](#)

Where can you host and make your Chef cookbook accessible to the Chef community?

Options

Puppet Forge

Chef Central

GitHub

Chef Supermarket

Submit

What is one of the benefits of contributing your Puppet modules to Puppet Forge?

Options

Earning monetary rewards for each download of your module.

Gaining access to premium Puppet Forge features and support.

Receiving feedback and suggestions from the community to improve your module.

Automatically qualifying for a Puppet certification.

Which versioning system should you follow when updating your Puppet module on Puppet Forge?

Options

Git Versioning

Incremental Versioning

Semantic Versioning (SemVer)

Tag-based Versioning

Submit

What is the purpose of node bootstrapping in both Chef and Puppet?

Options

To install and configure the configuration management tool on the target node.

To define the desired state of the node using recipes or manifests.

To classify nodes based on roles and environments.

To track changes and manage updates to the node's configuration.

Which of the following is NOT a best practice for node configuration?

Options

Version Control: Keep your configuration code in version control to track changes and manage updates effectively.

Testing and Validation: Test your configurations on production nodes before applying them to avoid unintended issues.

Standardization: Use standard and consistent naming conventions for nodes to enhance organization and manageability.

Monitoring and Logging: Implement monitoring and logging to track node health and configuration changes, aiding in troubleshooting and auditing.

Submit

What is the purpose of resource collection in Chef?

Options

To analyze and identify resources that need to be managed before applying changes.

To minimize the number of resource updates during a Chef run.

To group resources based on their dependencies and convergence requirements.

To automate the setup and maintenance of IT infrastructure.

Next

Which of the following is NOT a resource collection strategy in Chef?

Options

Default Strategy

Selective Strategy

Parallel Execution Strategy

Run List Optimization Strategy

Submit

What is the purpose of Test Kitchen in Chef cookbook development?

Options

To create isolated testing environments for cookbook changes.

To automate the process of provisioning virtual machines and applying cookbook configurations.

To verify the desired state of the infrastructure after applying cookbook configurations.

All of the above.

Next

Which file is used to define the testing platforms, provisioners, and suites in Test Kitchen?

Options

.test.yml

.kitchen.yml

.chefdk.yml

.verify.yml

Submit

Which version control system is widely used for tracking changes and collaborating on cookbook development in Chef?

Options

Mercurial

Subversion (SVN)

Git

CVS

Next

What is the purpose of using branches in Git for cookbook development?

Options

To initialize a Git repository for a cookbook project.

To facilitate code reviews and collaboration among team members.

To track and manage changes to cookbook files over time.

To work on features or bug fixes independently before merging changes back into the main codebase.

Submit

Which directory in Chef configuration management contains essential configuration files, client keys, and validation keys used for secure communication between Chef clients and the Chef server?

Options

.config

.chef

.server

.keys

Next

What is the purpose of the validation.pem file in the .chef directory?

Options

To store trusted SSL certificates for secure communication with the Chef server.

To contain the private key used for authentication between Chef clients and the Chef server.

To configure settings for the knife command-line tool.

To serve as a special key used for the initial setup and registration of new Chef clients with the Chef server.

What is the purpose of the .chef directory in Chef configuration management?

Options

It contains cookbooks, configurations, and metadata for Chef clients.

It stores trusted SSL certificates for secure communication with the Chef server.

It holds essential configuration files and client keys, facilitating secure communication between Chef clients and the Chef server.

It is a centralized hub that manages Chef clients and their keys.

[Next](#)

Which file inside the .chef directory is used for the initial setup and registration of new Chef clients with the Chef server?

Options

knife.rb

user.pem

validation.pem

client.pem

Submit

What is the role of SSL certificates in securing communication between Chef clients and the Chef server?

Options

They establish a direct connection between Chef clients and the Chef server.

They encrypt data exchanged between Chef clients and the Chef server, ensuring data confidentiality.

They authenticate Chef clients before allowing them to access the Chef server.

They automatically generate configuration files for Chef clients.

In the .chef directory, where do you place trusted SSL certificates to ensure Chef clients trust the Chef server's identity?

Options

.chef/certs

.chef/keys

.chef/trusted_certs

.chef/ssl

Submit

What is a key characteristic of interpreter languages?

Options

They are compiled before execution.

They are executed line by line.

They produce machine code directly.

They are best for high-performance applications.

[Next](#)

Which of the following is NOT a valid data type?

Options

Integers

Floating Point Numbers

Booleans

Characters

Fragments

Submit

What is the purpose of an "if-else" statement?

Options

To loop through a sequence of statements.

To create a modular function.

To perform actions conditionally based on a boolean expression.

To define a class.

Which loop executes its block of code at least once, even if the condition is false?

Options

For loop

While loop

Do-while loop

Switch loop

Submit

What is the primary advantage of using functions/methods in programming?

Options

They consume less memory.

They make code harder to understand.

They allow code reusability and modularity.

They are only used for mathematical calculations.

Choose the correct answer

[View All Questions](#)

Modularity in programming refers to:

Options

Writing code in a single large file.

Breaking code into smaller, manageable pieces.

Combining multiple data types in one variable.

Creating loops with complex conditions.

Submit

What is a class in programming?

Options

A loop structure.

A collection of data types.

A blueprint for creating objects with attributes and methods.

A type of data storage.

Next

Inheritance allows a class to inherit:

Options

A) Only attributes from another class.

B) Only methods from another class.

C) Both attributes and methods from another class.

D) Nothing from another class.

Submit