

Q1) what is DevOps?

By the name DevOps, it's very clear that it's a collaboration of Development and Operations. But one should know that DevOps is not a tool, or a software or framework, DevOps is a Combination of Tools which helps for the automation of whole infrastructure.

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DevOps is basically an implementation of Agile methodology on Development side as well as Operations side.

Q2) why do we need DevOps?

To fulfil the need of delivering more and faster and better application to meet more and more demands of users, we need DevOps. DevOps helps deployment to happen really fast compared to any other traditional tools.

Q3) Mention the key aspects or principle behind DevOps?

The key aspects or principle behind DevOps is:

Infrastructure as a Code

Continuous Integration

Continuous Deployment

Automation

Continuous Monitoring

Security

Q4) List out some of the popular tools for DevOps?

Git

Jenkins

Ansible

Puppet

Nagios

Docker

ELK (Elasticsearch, Logstash, Kibana)

Q5) what is a version control system?

Version Control System (VCS) is a software that helps software developers to work together and maintain a complete history of their work.

Some of the feature of VCS as follows:

Allow developers to work simultaneously

Does not allow overwriting on each other changes.

Maintain the history of every version.

There are two types of Version Control Systems:

1. Central Version Control System, Ex: Git, Bitbucket
2. Distributed/Decentralized Version Control System, Ex: SVN

Q6) What is Git and explain the difference between Git and SVN?

Git is a source code management (SCM) tool which handles small as well as large projects with efficiency. It is basically used to store our repositories in remote server such as GitHub.

GIT	SVN
Git is a Decentralized Version Control Tool	SVN is a Centralized Version Control Tool
Git contains the local repo as well as the full history of the whole project on all the developers hard drive, so if there is a server outage , you can easily do recovery from your team mates local git repo.	SVN relies only on the central server to store all the versions of the project file
Push and pull operations are fast	Push and pull operations are slower compared to Git

GIT	SVN
It belongs to 3rd generation Version Control Tool	It belongs to 2nd generation Version Control tools
Client nodes can share the entire repositories on their local system	Version history is stored on server-side repository
Commits can be done offline too	Commits can be done only online
Work are shared automatically by commit	Nothing is shared automatically

Q7) what language is used in Git?

Git is written in C language, and since its written in C language its very fast and reduces the overhead of runtimes.

Q8) what is SubGit?

SubGit is a tool for migrating SVN to Git. It creates a writable Git mirror of a local or remote Subversion repository and uses both Subversion and Git if you like.

Q9) how can you clone a Git repository via Jenkins?

First, we must enter the e-mail and user name for your Jenkins system, then switch into your job `py` directory and execute the `git config` command.

Q10)What are the Advantages of Ansible?

`py` Agentless, it doesn't require any extra package/daemons to be installed

Very low overhead

Good performance

Idempotent

Very Easy to learn

Declarative not procedural

`py` Q 11) what s the use of Ansible?

Ansible is mainly used in IT infrastructure to manage or deploy applications to remote nodes.

Let's say we want to deploy one application in 100s of nodes by just executing one Ansible script. Then Ansible is the one actually coming into the picture but should have some knowledge on Ansible script to understand or execute the same.

Q12) what's the difference between Ansible Playbooks

Roles	Playbooks
Roles are reusable subsets of a play.	Playbooks contain Plays.
A set of tasks for accomplishing certain role.	Maps among hosts and roles.
Example: common, webservers.	Example: site.yml, fooservers.yml, webservers.yml.

Q13) How do I see a list of all the ansible_ variables?

Ansible by default gathers facts about the machines, and these facts are available in Playbooks and in templates. To see a list of all the facts that are available about a machine, you can run the setup module as an ad-hoc action:

```
Ansible -m setup hostname
```

This will print out a dictionary of all the facts that are available for that particular host.

Q14) what is Docker?

Docker is a containerization technology that packages your application and all its dependencies together in the form of Containers to ensure that your application works seamlessly in any environment.

Q15) what is Docker image?

Docker image is the source of Docker container. Or in other words, Docker images are used to create containers.

Q16) what is Docker Container?

Docker Container is the running instance of Docker Image.

Q17) Can we consider DevOps as Agile methodology?

Of Course, we can!! The only difference between agile methodology and DevOps is that, agile methodology is implemented only for development section and DevOps implements agility on both development as well as operations section.

Q18) what are the advantages of using Git?

1. Data redundancy and replication
2. High availability
3. Only one. git directory per repository
4. Superior disk utilization and network performance
5. Collaboration friendly
6. Git can use any sort of projects.

Q19) what is kernel?

A kernel is the lowest level of easily replaceable software that interfaces with the hardware in your computer.

Q20) what is difference between grep -i and grep -v?

I ignore alphabet difference V accept this value

ex) ls | grep -i docker

Dockerfile

docker.tar.gz

ls | grep -v docker

Desktop

Dockerfile

Documents

Downloads

¶ You can't see anything with name `docker.tar.gz`

Q21) How can you define particular space to the file

This feature is generally used to give the swap space to the server. Let's say in below machine I have to create swap space of 1GB then,

```
dd if=/dev/zero of=/swapfile1 bs=1G count=1
```

Q22) what is concept of sudo in linux?

Sudo (superuser do) is a utility for UNIX- and Linux-based systems that provides an efficient way to give specific users permission to use specific system commands at the root (most powerful) level of the system.

Q23) what is a Jenkins Pipeline?

¶ Jenkins Pipeline (or simply Pipeline) is a suite of plugins which support integrating continuous delivery pipelines into Jenkins.

Q24) How to stop and restart the Docker container?

To stop the container: `docker stop container ID`

Now to restart the Docker container: `docker restart container ID`

Q25) What platforms does Docker run on?

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Docker runs on only Linux and Cloud platforms:

Ubuntu 12.04 LTS+

Fedora 20+

RHEL 6.5+

CentOS 6+

Gentoo

ArchLinux

openSUSE 12.3+

CRUX 3.0+

Cloud:

Amazon EC2

Google Compute Engine

Microsoft Azure

Rackspace

Note that Docker does not run on Windows or Mac for production as there is no support, yes you can use it for testing purpose even in windows

Q26) what are the tools used for docker networking?

For docker networking we generally use kubernetes and docker swarm.

Q27) what is docker compose?

Lets say you want to run multiple docker container, at that time you have to create the docker compose file and type the command docker-compose up. It will run all the containers mentioned in docker compose file.

Q28) What is Scrum?

Scrum is basically used to divide your complex software and product development task into smaller chunks, using iterations and incremental practises. Each iteration is of two weeks. Scrum

consists of three roles: Product owner, scrum master and Team

Q29) What does the commit object contain?

Commit object contain the following components:

It contains a set of files, representing the state of a project at a given point of time reference to parent commit objects

An SHA1 name, a 40-character string that uniquely identifies the commit object (also called as hash).

Q30) Explain the difference between git pull and git fetch?

Git pull command basically pulls any new changes or commits from a branch from your central repository and updates your target branch in your local repository.

Git fetch is also used for the same purpose, but its slightly different form Git pull. When you trigger a git fetch, it pulls all new commits from the desired branch and stores it in a new branch in your local repository. If we want to reflect these changes in your target branch, git fetch must be followed with a git merge. Our target branch will only be updated after merging the target branch and fetched branch. Just to make it easy for us, remember the equation below:

Git pull = git fetch + git merge

Q31) How do we know in Git if a branch has already been merged into master?

```
py git branch merged
```

The above command lists the branches that have been merged into the current branch.

```
py git branch no-merged
```

this command lists the branches that have not been merged.

py Q 32) What is Staging Area or Index in GIT?

Before committing a file, it must be formatted and reviewed in an intermediate area known as
Staging Area or Indexing Area .

```
#git add <file_name>
```

Q33) What is Git Stash?

Let's say you've been working on part of your project, things are in a mess, you want to switch branches for some time to work on something else. The problem is you have half-done work that you want to save. The answer to this issue is Git stash.

Git Stashing takes your working directory that is, your modified tracked files and staged changes and saves it on a stack of unfinished changes that you can reapply at any time.

Q34) What is Git stash drop?

Git stash drop command is basically used to remove the stashed item. It removes the last added stash item by default, and it can also remove a specific item if you include it as an argument.

I have provided an example below:

If you want to remove any particular stash item from the list of stashed items you can use the below commands:

git stash list: It will display the list of stashed items as follows:

```
stash@{0}: WIP on master: 049d080 added the index file
```

```
stash@{1}: WIP on master: c265351 Revert added files
```

```
stash@{2}: WIP on master: 13d80a5 added number to log
```

Q35) What is the function of git config ?

Git uses our username to associate commits with an identity. The git config command can be

used to change our Git configuration, including your username.

Suppose you want to give a username and email id to associate commit with an identity so that you can know who has made a commit. For that I will use:

```
git config --global user.name "Your Name" : This command will add your u
```

```
git config --global user.email "Your E-mail Address" : This command will a
```

Q36) How can you create a repository in Git?

To create a repository, you must create a directory for the project if it does not exist, then run

```
git init . By running this command .git directory will be created in the current directory.
```

Q37) Describe the branching strategies you have used?

Generally, they ask this question to understand your branching knowledge

Feature branching

This model keeps all the changes for a feature inside of a branch. When the feature branch is fully tested and validated by automated tests, the branch is then merged into master.

Task branching

In this task branching model each task is implemented on its own branch with the task key included in the branch name. It is quite easy to see which code implements which task, just look for the task key in the branch name.

Release branching

Once the develop branch has acquired enough features for a release, then we can clone that branch to form a Release branch. Creating this release branch starts the next release cycle, so no new features can be added after this point, only bug fixes, documentation generation, and other release-oriented tasks should go in this branch. Once it's ready to be released, it should be merged into master and then tagged with a version number. In addition, it should be merged back

into develop branch, which may have progressed since the release was initiated earlier.

Q38) What is Jenkins?

Jenkins is an open source continuous integration tool which is written in Java language. It keeps a track on version control system and to initiate and monitor a build system if any changes occur. It monitors the whole process and provides reports and notifications to alert the concern team.

Q39) What is the difference between Maven, Ant and Jenkins?

Maven and Ant are Build Technologies whereas Jenkins is a continuous integration(CI/CD) tool.

Q40) Explain what is continuous integration?

When multiple developers or teams are working on different segments of same web application, we need to perform integration test by integrating all the modules. To do that an automated process for each piece of code is performed on daily bases so that all your code gets tested. And this whole process is termed as continuous integration.

Q41) What is the relation between Hudson and Jenkins?

Hudson was the earlier name of current Jenkins. After some issue faced, the project name was changed from Hudson to Jenkins.

Q42) What are the advantages of Jenkins?

Advantage of using Jenkins

- Bug tracking is easy at early stage in development environment.

- Provides a very large numbers of plugin support.

- Iterative improvement to the code, code is basically divided into small sprints.

- Build failures are cached at integration stage.

- For each code commit changes an automatic build report notification get generated.

- To notify developers about build report success or failure, it can be integrated with LDAP mail

server.

Achieves continuous integration agile development and test-driven development environment.

With simple steps, maven release project can also be automated.

Q43) Which SCM tools does Jenkins supports?

Source code management tools supported by Jenkins are below:

AccuRev

CVS

Subversion

Git

Mercurial

Perforce

Clearcase

RTC

Q44) What is Ansible?

Ansible is a software configuration management tool to deploy an application using ssh without any downtime. It is also used for management and configuration of software applications. Ansible is developed in Python language.

Q45) How can your setup Jenkins jobs?

Steps to set up Jenkins job as follows:

Select new item from the menu.

After that enter a name for the job (it can be anything) and select free-style job.

Then click OK to create new job in Jenkins dashboard.

py The next page enables you to configure your job, and it s done.

Q46) What is your daily activities in your current role?

Working on JIRA Tickets

Builds and Deployments

Resolving issues when builds and deployments fails by coordinating and collaborating with the dev team

Infrastructure maintenance

Monitoring health of applications

Q47) What are the challenges you faced in recent times?

I need to implement trending technologies like Docker to automate the configuration management activities in my project by showing POC.

Q48) What are the build and deployment failures you got and how you resolved those?

I use to get most of the time out of memory issue. So I fixed this issue by restarting the server which is not best practice. I did the permanent fix by increase the Perm Gen Space and Heap Space.

Q49) I want a file that consists of last 10 lines of the some other file?

Tail -10 filename >filename

Q50) How to check the exit status of the commands?

echo \$?

Q51) I want to get the information from file which consists of the word py G a n g B o a r d

```
pygrep GangBoard filename
```

py Q 52) I want to search the files with the name of Gan

```
pyfind / -type f -name *GangBoard*
```

Q53) Write a shell script to print only prime numbers?

```
prime.sh echo "1" i=3 j=300 flag=0 tem=2 echo "1"while [ $i
-ne $j ] do temp=`echo $i` while [ $temp -ne $tem ] do
temp=`expr $temp - 1` n=`expr $i % $temp` if [ $n -eq 0 -a
$flag -eq 0 ] then flag=1 fi done if [ $flag -eq 0 ] then echo
$i else flag=0 fi i=`expr $i + 1` done
```

Q54) How to pass the parameters to the script and how can I get those parameters?

```
Scriptname.sh parameter1 parameter2
```

I will use \$* to get the parameters.

Q55) What is the default file permissions for the file and how can I modify it?

```
pyDefault file permissions are : rw-r r
```

If I want to change the default file permissions I need to use umask command ex: umask 666

Q56) How you will do the releases?

There are some steps to follow.

Create a check list

Create a release branch

Bump the version

Merge release branch to master & tag it.

Use a Pull request to merge the release merge

Deploy master to Prod Environment

Merge back into develop & delete release branch

Change log generation

Communicating with stack holders

Grooming the issue tracker

Q57) How you automate the whole build and release process?

Check out a set of source code files.

Compile the code and report on progress along the way.

Run automated unit tests against successful compiles.

Create an installer.

Publish the installer to a download site, and notify teams that the installer is available.

Run the installer to create an installed executable.

Run automated tests against the executable.

Report the results of the tests.

Launch a subordinate project to update standard libraries.

Promote executables and other files to QA for further testing.

Deploy finished releases to production environments, such as Web servers or CD manufacturing.

The above process will be done by Jenkins by creating the jobs.

Q58) I have 50 jobs in the Jenkins dash board , I want to build at a time all the jobs

In Jenkins there is a plugin called build after other projects build. We can provide job names over there and If one parent job run then it will automatically run the all other jobs. Or we can use Pipe

line jobs.

Q59) How can I integrate all the tools with Jenkins?

I have to navigate to the manage Jenkins and then global tool configurations there you have to provide all the details such as Git URL , Java version, Maven version , Path etc.

Q60) How to install Jenkins via Docker?

The steps are:

Open up a terminal window.

Download the jenkinsci/blueocean image & run it as a container in Docker using the following

docker run command:(<https://docs.docker.com/engine/reference/commandline/run/>)

```
docker run \ -u root \ rm \ -d \ -p 8080:8080 \ -p 50000:50000 \ -v jenkins:/var/run/docker.sock:/var/run/docker.sock \ jenkinsci/blueocean
```

Proceed to the Post-installation setup wizard (<https://jenkins.io/doc/book/installing/#setup-wizard>)

Accessing the Jenkins/Blue Ocean Docker container `docker exec -it jenkins-blueocean bash`

Accessing the Jenkins console log through Docker `docker logs jenkins-blueocean`

`<docker-container-name>Accessing the Jenkins home directory`
`docker exec -it`

`<docker-container-name> bash`

Q61) Did you ever participated in Prod Deployments? If yes what is the procedure?

Yes I have participated, we need to follow the following steps in my point of view

Preparation & Planning : What kind of system/technology was supposed to run on what kind of machine

The specifications regarding the clustering of systems

How all these stand-alone boxes were going to talk to each other in a foolproof manner

Production setup should be documented to bits. It needs to be neat, foolproof, and

understandable.

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It should have all a system configurations, IP addresses, system specifications, & installation instructions.

It needs to be updated as & when any change is made to the production environment of the system

Q62) My application is not coming up for some reason? How can you bring it up?

We need to follow the steps

Network connection

• The Web Server is not receiving users s request

Checking the logs

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• Checking the process id s whether services are running or not

• The Application Server is not receiving user s request (Check the App Processes)

• A network level connection reset is happening somewhere.

Q63) Did you automate anything in your project? Please explain

Yes I have automated couple of things such as

Password expiry automation

Deleting the older log files

Code quality threshold violations etc.

Q64) What is IaC? How you will achieve this?

Infrastructure as Code (IaC) is the management of infrastructure (networks, virtual machines, load balancers, and connection topology) in a descriptive model, using the same versioning as

DevOps team uses for source code. This will be achieved by using the tools such as Chef, Puppet and Ansible etc.

Q65) What is multifactor authentication? What is the use of it?

Multifactor authentication (MFA) is a security system that requires more than one method of authentication from independent categories of credentials to verify the other transaction.

- Security for every enterprise user end & privileged users, internal a

- Protect across enterprise resources cloud & on-prem apps, VPNs, e privilege elevation and more

- Reduce cost & complexity with an integrated identity platform

Q66) I want to copy the artifacts from one location to another location in cloud. How?

Create two S3 buckets, one to use as the source, and the other to use as the destination and then create policies.

Q67) How can I modify the commit message in git?

I have to use following command and enter the required message.

```
git commit --amend
```

Q68) How can you avoid the waiting time for the triggered jobs in Jenkins.

First I will check the Slave nodes capacity, If it is fully loaded then I will add the slave node by doing the following process.

Go to the Jenkins dashboard -> Manage Jenkins -> Manage Nodes

Create the new node a

By giving the all required fields and launch the slave machine as you want.

Q69) What are the Pros and Cons of Ansible?

Pros:

1. Open Source
2. Agent less
3. Improved efficiency , reduce cost
4. Less Maintenance
5. Easy to understand yaml files

Cons:

1. Underdeveloped GUI with limited features
2. Increased focus on orchestration over configuration management
3. SSH communication slows down in scaled environments

Q70) How you handle the merge conflicts in git?

Follow the steps

1. Create Pull request
2. Modify according to the requirement by sitting with developers
3. Commit the correct file to the branch
4. Merge the current branch with master branch.

Q71) I want to delete 10 days older log files. How can I?

pŷ There is a command in unix to achieve this task `find <directory_path> -mtime +10 -exec rm -f {} \;` 2>/dev/null

What is the difference among chef, puppet and ansible?

	Chef	Puppet	Ansible
Interoperability	Works Only on Linux/Unix	Works Only on Linux/Unix	Supports Windows but server should be Linux/Unix
Conf. Language	It uses Ruby	Puppet DSL	YAML (Python)
Availability	Primary Server and Backup Server	Multi Master Architecture	Single Active Node

Q72) How you get the Inventory variables defined for the host?

We need to use the following command

```
python ansible -m debug -a 'var=hostvars[hostname] localhost(10.92.62.215)'
```

Q73) How you will take backup for Jenkins?

```
python Copy JENKINS_HOME directory and jobs directory to replicate it in another server
```

Q74) How to deploy docker container to aws?

Amazon provides the service called Amazon Elastic Container Service; By using this creating and configuring the task definition and services we will launch the applications.

Q75) I want to change the default port number of apache tomcat. How?

Go to the tomcat folder and navigate to the conf folder there you will find a server.xml file. You can change connector port tag as you want.

Q76) In how many ways you can install the Jenkins?

We can install Jenkins in 3 Ways

By downloading Jenkins archive file

By running as a service `Java jar Jenkins.war`

By deploying Jenkins.war to the webapps folder in tomcat.

Q77) How you will run Jenkins job from command line?

We have a Jenkins CLI from there we need to use the curl command

```
curl -X POST -u YOUR_USER:YOUR_USER_PASSWORD  
http://YOUR_JENKINS_URL/job/YOUR_JOB/build
```

Q78) How you will do tagging in git?

We have following command to create tags in git

```
Git tag v0.1
```

Q79) How can you connect a container to a network when it starts?

We need to use a following command

```
py docker run -itd network=multi-host-network busybox
```

Q80) How you will do code commit and code deploy in cloud?

Create a deployment environment

Get a copy of the sample code

Create your pipeline

Activate your pipeline

Commit a change and update the App.

Q81) How to access variable names in Ansible?

Using hostvars method we can access and add the variables like below

```
playbook: hostvars[inventory_hostname][ansible_host_interface][ipv4][a
```

Q82) What is Infrastructure as Code?

Where the Configuration of any servers or tool chain or application stack required for an association can be made into progressively elucidating dimension of code and that can be utilized for provisioning and overseeing foundation components like Virtual Machine, Software, Network Elements, however it varies from contents utilizing any language, where they are a progression of static advances coded, where Version control can be utilized so as to follow condition changes .

Precedent Tools are Ansible, Terraform.

Q83) What are the zones the Version control can acquaint with get proficient DevOps practice?

A clearly fundamental region of Version Control is Source code the executives, Where each engineer code ought to be pushed to a typical storehouse for keeping up assemble and discharge in CI/CD pipelines.

Another territory can be Version control For Administrators when they use Infrastructure as A Code (IAC) apparatuses and rehearses for keeping up The Environment setup.

Another Area of Version Control framework Can be Artifactory Management Using Repositories like Nexus and DockerHub

Q84) Why Opensource apparatuses support DevOps?

Opensource devices dominantly utilized by any association which is adjusting (or) embraced DevOps pipelines in light of the fact that devops accompanied an attention on robotization in different parts of association manufacture and discharge and change the executives and furthermore framework the board zones.

So creating or utilizing a solitary apparatus is unthinkable and furthermore everything is fundamentally an experimentation period of advancement and furthermore coordinated chops down the advantage of building up a solitary device , so opensource devices were accessible available practically spares each reason and furthermore gives association a choice to assess

the device dependent on their need.

Q85) What is the distinction among Ansible and chef(or) manikin?

Ansible is Agentless design the board device, where manikin or gourmet expert needs operator should be kept running on the specialist hub and culinary specialist or manikin depends on draw demonstrate, where your cookbook or show for gourmet expert and manikin separately from the ace will be pulled by the operator and ansible uses ssh to convey and it gives information driven guidelines to the hubs should be overseen , progressively like RPC execution, ansible utilizations YAML scripting, though manikin (or) culinary specialist is worked by ruby uses their own DSL .

Q86) What is Jinja2 templating in ansible playbooks and their utilization?

Jinja2 templating is the Python standard for templating , consider it like a sed editorial manager for Ansible , where it very well may be utilized is when there is a requirement for dynamic change of any config record to any application like consider mapping a MySQL application to the IP address of the machine, where it is running, it can't be static , it needs at runtime.

Arrangement

The vars inside the supports are supplanted by ansible while running utilizing layout module.

Q87) What is the requirement for sorting out playbooks as the job, is it vital?

Arranging playbooks as jobs , gives greater clarity and reusability to any plays , while consider an errand where MySQL establishment ought to be done after the evacuation of Oracle DB , and another prerequisite is expected to introduce MySQL after java establishment, in the two cases we have to introduce MySQL , yet without jobs need to compose playbooks independently for both use cases , yet utilizing jobs once the MySQL establishment job is made can be used any number of times by summoning utilizing rationale in site.yaml .

No , it isn't important to make jobs for each situation, however making jobs in Ansible.

Q88) What is the fundamental disservice of Docker holders?

As the lifetime of any compartments is while pursuing a holder is wrecked, information inside a compartment, the information inside a compartment is lost perpetually, however tenacious capacity for information inside compartments should be possible utilizing volumes mount to an outer source like host machine and any NFS drivers.

Q89) What are the docker motor and docker form?

Docker motor contacts the docker daemon inside the machine and makes the runtime condition and procedure for any compartment, docker make connects a few holders to shape as a stack utilized in making application stacks like LAMP, WAMP, XAMP

Q90) What are the Different modes does a holder can be run?

Docker holder can be kept running in two modes

Connected: Where it will be kept running in the forefront of the framework you are running, gives a terminal inside to compartment when t choice is utilized with it, when diverted to stdout screen.

Isolates: This mode is typically kept running underway, where the holder is confined as a foundation procedure and each yield inside a compartment will be diverted log records inside `/var/lib/docker/logs/<container-id>/<container-id.json>` and which can be seen by docker logs order.

Q91) What the yield of docker assess order will be?

Docker examines `<container-id>` will give yield in JSON position, which contains subtleties like the IP address of the compartment inside the docker virtual scaffold and volume mount data and each other data identified with host (or) holder explicit like the basic document driver utilized, log driver utilized.

```
docker inspect [OPTIONS] NAME|ID [NAME|ID&]
```

Choices

Name, shorthand Default Description

`pygroup, f` Format the yield utilizing the given Go layout

`pymeasure, s` Display all out document sizes if the sort is the compartment

type Return JSON for a predefined type

Q92) What is the order can be utilized to check the asset usage by docker holders?

Docker details order can be utilized to check the asset usage of any docker holder, it gives the yield practically equivalent to Top direction in Linux, it shapes the base for compartment asset observing instruments like a counsel, which gets yield from docker details order.

`pydocker details [OPTIONS] [CONTAINER&]`

Choices

Name, shorthand Default Description

`pyall, a` Show all holders (default demonstrates simply running)

group Pretty-print pictures utilizing a Go layout

no-stream Disable spilling details and just draw the main outcome

no-trunc Do not truncate yield

Q93) How to execute some errand (or) play on localhost just while executing playbooks on various has on an ansible?

In ansible, there is a module called `delegate_to`, in this module area give the specific host (or) has where your errands (or) assignment should be run.

undertakings:

`pyname: Elasticsearch Hitting`

```
python: url= _search?q=status:new headers='{ Content-type : application/json }'
return_content=yes
```

```
register: yield
```

```
delegate_to: 127.0.0.1
```

Q94) What is the distinction among set_fact and vars in ansible?

Where a set_fact sets the incentive for a factor at one time and stays static, despite the fact that the esteem is very powerful and vars continue changing according to the esteem continues changing for the variable.

```
assignments:
```

```
set_fact:
```

```
python fact_time: Truth:
```

```
troubleshoot: var=fact_time
```

```
order: rest 2
```

```
troubleshoot: var=fact_time
```

```
assignments:
```

```
name: queries in factors versus queries in realities
```

```
has: localhost
```

```
vars:
```

```
python var_time: Var:
```

Despite the fact that the query for the date has been utilized in both the cases, wherein the vars are utilized it modifies dependent on an opportunity to time each time executed inside the

playbook lifetime. Be that as it may, Fact dependably continues as before once query is finished

Q95) What is a query in ansible and what are query modules bolstered by ansible?

Query modules enable access to information in Ansible from outside sources. These modules are assessed on the Ansible control machine and can incorporate perusing the filesystem yet in addition reaching outside information stores and administrations.

```
py Organization is {lookup{ <plugin> , '<source(or)connection_string> '}}
```

A portion of the query modules upheld by ansible are

Document

pipe

redis

jinja layouts

etcd kv store

Q96) How might you erase the docker pictures put away at your nearby machine and how might you do it for every one of the pictures without a moment's delay?

The direction docker RMI <image-id> can be utilized to erase the docker picture from nearby machine, though a few pictures may should be constrained in light of the fact that the picture might be utilized by some other holder (or) another picture , to erase pictures you can utilize the py mix of directions by docker RMI \$(docker pictures -q), where docker pictures -q picture names, to get just the ID of docker pictures just , we are utilizing pictures order.

Q97) What are the organizers in the Jenkins establishment and their employments?

þÿ JENKINS_HOME which will be \$JENKINS_USER/.jenkins it is the root establishment and it contains subfolders each for various purposes.

þÿ employments/ Folder contains all the data pretty much every one of them in the Jenkins example.

Inside employments/, you will have the envelope made for each activity and inside those organizers, you will have fabricate organizers as indicated by each form numbers each form will have its log records, which we see in Jenkins web support.

þÿ Modules/ where all your modules will be recorded.

þÿ Workspace/ this will be available to hold all the workspace documents pulled from SCM.

Q98) What are the approaches to design Jenkins framework?

Jenkins can be designed in two different ways

Web: Where there is a choice called design a framework, in their area, you can make all setup changes.

Manual on filesystem: Where each change should likewise be possible straightforwardly on the Jenkins config.xml document under the Jenkins establishment catalog, after you make changes on the filesystem, you have to restart your Jenkins, either can do it specifically from terminal (or) you can utilize Reload setup from plate under oversee Jenkins menu or you can hit/restart endpoint straightforwardly.

Q99) What is the job Of HTTP REST API in DevOps?

As DevOps is absolutely centers around Automating your framework and gives changes over the pipeline to various stages like an every CI/CD pipeline will have stages like form, test, mental soundness test, UAT, Deployment to Prod condition similarly as with each phase there are diverse devices is utilized and distinctive innovation stack is displayed and there should be an approach to incorporate with various instrument for finishing an arrangement toolchain, there comes a requirement for HTTP API , where each apparatus speaks with various devices utilizing API , and even client can likewise utilize SDK to interface with various devices like BOTOX for

Python to contact AWS APIs for robotization dependent on occasions , handling any longer , it is generally occasion driven pipelines

Q100) What are Micro services, and how they control proficient DevOps rehearses?

Where In conventional engineering , each application is stone monument application implies that anything is created by a gathering of designers, where it has been sent as a solitary application in numerous machines and presented to external world utilizing load balances, where the micro services implies separating your application into little pieces, where each piece serves the distinctive capacities expected to finish a solitary exchange and by separating , designers can likewise be shaped to gatherings and each bit of utilization may pursue diverse rules for proficient advancement stage, as a result of spry improvement ought to be staged up a bit and each administration utilizes REST API (or) Message lines to convey between another administration.

So manufacture and arrival of a non-strong form may not influence entire design, rather, some usefulness is lost, that gives the confirmation to productive and quicker CI/CD pipelines and DevOps Practices.

Q101) What are the manners in which that a pipeline can be made in Jenkins?

There are two different ways of a pipeline can be made in Jenkins

Scripted Pipelines:

Progressively like a programming approach

Explanatory pipelines:

DSL approach explicitly to make Jenkins pipelines.

The pipeline ought to be made in Jenkins document and the area can either be in SCM or nearby framework.

Definitive and Scripted Pipelines are developed on a very basic level in an unexpected way.

Definitive Pipeline is a later element of Jenkins Pipeline which:

gives more extravagant grammatical highlights over Scripted Pipeline language structure, and is intended to make composing and perusing Pipeline code less demanding.

Q102) What are the Labels in Jenkins and where it tends to be used?

Similarly as with CI/CD arrangement should be concentrated , where each application in the association can be worked by a solitary CI/CD server , so in association there might be various types of utilization like java, c#, .NET and so forth, likewise with microservices approach your programming stack is inexactly coupled for the task , so you can have Labeled in every hub and select the choice Only assembled employments while name coordinating this hub, so when a manufacture is planned with the mark of the hub present in it, it hangs tight for next agent in that hub to be accessible, despite the fact that there are different agents in hubs.

Q103) What is the utilization of Blueocean in Jenkins?

Blue Ocean reconsiders the client experience of Jenkins. Planned from the beginning for Jenkins Pipeline, yet at the same time good with free-form occupations, Blue Ocean diminishes mess and builds lucidity for each individual from the group.

It gives complex UI to recognize each phase of the pipeline and better pinpointing for issues and extremely rich Pipeline editorial manager for apprentices.

Q104) What is the callback modules in Ansible, give a few instances of some callback modules?

Callback modules empower adding new practices to Ansible when reacting to occasions. Of course, callback modules control a large portion of the yield you see when running the direction line programs, however can likewise be utilized to include an extra yield, coordinate with different apparatuses and marshall the occasions to a capacity backend. So at whatever point a play is executed and after it creates a few occasions, that occasions are imprinted onto Stdout screen, so callback module can be put into any capacity backend for log preparing.

Model callback modules are ansible-logstash, where each playbook execution is brought by logstash in the JSON group and can be incorporated some other backend source like

elasticsearch.

Q105) What are the scripting dialects can be utilized in DevOps?

As with scripting dialects, the fundamental shell scripting is utilized to construct ventures in Jenkins pipelines and python contents can be utilized with some other devices like Ansible , terraform as a wrapper content for some other complex choice unraveling undertakings in any mechanization as python is more unrivaled in complex rationale deduction than shell contents and ruby contents can likewise be utilized as fabricate ventures in Jenkins.

Q106) What is Continuous Monitoring and why checking is basic in DevOps?

DevOps draws out each association capacity of fabricate and discharge cycle to be a lot shorter with an idea of CI/CD, where each change is reflected into generation conditions fastly, so it should be firmly observed to get client input. So the idea of constant checking has been utilized to assess every application execution progressively (at any rate Near Real Time) , where every application is produced with application execution screen specialists perfect and the granular dimension of measurements are taken out like JVM details and even practical savvy measurements inside the application can likewise be spilled out progressively to Agents , which thusly provides for any backend stockpiling and that can be utilized by observing groups in dashboards and cautions to get persistently screen the application.

Q107) Give a few instances of persistent observing instruments?

Where numerous persistent observing instruments are accessible in the market, where utilized for an alternate sort of use and sending model

Docker compartments can be checked by consultant operator, which can be utilized by Elasticsearch to store measurements (or) you can utilize TICK stack (Telegraph, influxdb, Chronograph, Capacitor) for each framework observing in NRT(Near Real Time) and You can utilize Logstash (or) Beats to gather Logs from framework , which thusly can utilize Elasticsearch as Storage Backend can utilize Kibana (or) Grafana as visualizer.

The framework observing should be possible by Nagios and Icinga.

Q108) What is docker swarm?

Gathering of Virtual machines with Docker Engine can be grouped and kept up as a solitary framework and the assets likewise being shared by the compartments and docker swarm access the docker holder in any of the machines under the bunch as indicated by asset accessibility

Docker swarm init can be utilized to start docker swarm bunch and docker swarm joins with the access IP from customer joins the hub into the swarm group.

Q109) What are Microservices, and how they control productive DevOps rehearses?

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So manufacture and arrival of a non-hearty variant may not influence entire design, rather, some usefulness is lost, that gives the affirmation to proficient and quicker CI/CD pipelines and DevOps Practices.

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Q112) What is the utilization of Blueocean in Jenkins?

Blue Ocean reexamines the client experience of Jenkins. Planned starting from the earliest stage for Jenkins Pipeline, yet at the same time good with free-form occupations, Blue Ocean lessens mess and expands clearness for each individual from the group.

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screen, so callback module can be put into any capacity backend for log handling.

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Q114) What are the scripting dialects can be utilized in DevOps?

As with scripting dialects, the fundamental shell scripting is utilized to assemble ventures in Jenkins pipelines and python contents can be utilized with some other instruments like Ansible.

Q115) For what reason is each instrument in DevOps is generally has some DSL (Domain Specific Language)?

Devops is a culture created to address the necessities of lithe procedure, where the advancement rate is quicker ,so sending should coordinate its speed and that needs activities group to arrange and work with dev group, where everything can computerize utilizing content based , however it feels more like tasks group than , it gives chaotic association of any pipelines, more the utilization cases , more the contents should be composed , so there are a few use cases, which will be sufficient to cover the requirements of light-footed are taken and apparatuses are made by that and customization can occur over the device utilizing DSL to mechanize the DevOps practice and Infra the board.

Q116) What are the mists can be incorporated with Jenkins and what are the utilization cases?

Jenkins can be coordinated with various cloud suppliers for various use cases like dynamic Jenkins slaves, Deploy to cloud conditions.

A portion of the cloud can be incorporated are

- AWS

- Purplish blue

- Google Cloud

- OpenStack

Q117) What are Docker volumes and what sort of volume ought to be utilized to accomplish relentless capacity?

Docker volumes are the filesystem mount focuses made by client for a compartment or a volume can be utilized by numerous holders, and there are distinctive sorts of volume mount accessible void dir, Post mount, AWS upheld lbs volume, Azure volume, Google Cloud (or) even NFS, CIFS filesystems, so a volume ought to be mounted to any of the outer drives to accomplish determined capacity, in light of the fact that a lifetime of records inside compartment, is as yet the holder is available and if holder is erased, the information would be lost.

Q118) What are the Artifacts store can be incorporated with Jenkins?

Any sort of Artifacts vault can be coordinated with Jenkins, utilizing either shell directions (or) devoted modules, some of them are Nexus, Jfrog.

Q119) What are a portion of the testing apparatuses that can be coordinated with Jenkins and notice their modules?

pySonar module can be utilized to incorporate testing of Code quality in

pyExecution module this can be utilized to incorporate JMeter execution

pyJUnit to distribute unit test reports.

pySelenium module can be utilized to incorporate with selenium for comp

Q120) What are the manufacture triggers accessible in Jenkins?

Fabricates can be run physically (or) either can naturally be activated by various sources like

Webhooks- The webhooks are API calls from SCM, at whatever point a code is submitted into a vault (or) should be possible for explicit occasions into explicit branches.

Gerrit code survey trigger-Gerrit is an opensource code audit instrument, at whatever point a code change is endorsed after audit construct can be activated.

pyTrigger Build Remotely You can have remote contents in any machine (

capacities (or) make a post demand to trigger forms in Jenkins.

Calendar Jobs-Jobs can likewise be booked like Cron occupations.

Survey SCM for changes Where your Jenkins searches for any progress given interim, if there is a change, a manufacture can be activated.

Upstream and Downstream Jobs-Where a construct can be activated by another activity that is executed already.

Q121) How to Version control Docker pictures?

Docker pictures can be form controlled utilizing Tags, where you can relegate the tag to any picture utilizing docker tag <image-id> order. Furthermore, on the off chance that you are pushing any docker center library without labeling the default label would be doled out which is most recent, regardless of whether a picture with the most recent is available, it indicates that picture without the tag and reassign that to the most recent push picture.

Q122) What is the utilization of Timestamper module in Jenkins?

It adds Timestamp to each line to the comfort yield of the assemble.

Q123) Why you ought not execute an expand on ace?

You can run an expand on ace in Jenkins , yet it isn t prudent, in light of the fact that Jenkins now has the duty of planning assembles and getting incorporate yields with JENKINS_HOME index, so on the off chance that we run an expand on Jenkins ace, at that point it furthermore needs to manufacture apparatuses, and workspace for source code, so it puts execution over-burden in the framework, if the Jenkins ace accidents, it expands the downtime of your fabricate and discharge cycle.

Q124) What do the main benefits of DevOps?

With a single team composed of cross-functional comments simply working in collaboration, DevOps organizations container produce including maximum speed, functionality, including innovation. Where continue special benefits: Continuous software control. Shorter complexity to manage.

Q125) What are the uses of DevOps tools?

Gradle. Your DevOps device stack will need a reliable build tool.

Git. Git is one from the most successful DevOps tools, widely applied across the specific software industry.

Jenkins. Jenkins is that go-to DevOps automation tool for many software community teams.

Bamboo.

Docker.

Kubernetes.

Puppet Enterprise.

Ansible.

Q126) What is DevOps beginner?

DevOps is a society which supports collaboration between Development including Operations Team to deploy key to increase faster in an automated & repeatable way. In innocent words, DevOps backside is established as an association of development and IT operations including excellent communication and collaboration.

Q127) What is the roles and responsibilities of the DevOps engineer?

DevOps Engineer manages with developers including the IT system to manage the code releases. They are both developers cases become interested in deployment including practice settings or sysadmins who convert a passion for scripting and coding more move toward the development front where all can improve that planning from test and deployment.

py Q 1 2 8) Which is the top DevOps tools? and it s Which worked on?

Discover about the trending Top DevOps Tools including Git. Well, if you live considering DevOps py being a tool when, you are wrong! DevOps does not a tool or software, i you can adopt for continuous growth. file and, by practicing it you can simply coordinate this work among your team.

Q129) Explain the typical characters involved in DevOps?

Commitment to the superior level in the organization.

Need for silver to be delivered across the organization.

Version check software.

Automated tools to compliance to process.

Automated Testing

Automated Deployment

Q130) What are your expectations from a career perspective of DevOps?

To be involved in the end to end delivery method and the most important phase of helping to change the manner so as to allow that development and operations teams to go together also to understand each other's point of view.

Q131) What does configuration management under terms like infrastructure further review some popular tools used?

In Software Engineering Software Configuration Management is a unique task about tracking to make the setting configuration during the infrastructure with one change. It is done for deploying, configuring and maintaining servers.

Q132) How will you approach when each design must to implement DevOps?

As the application is generated and deployed, we do need to control its performance. Monitoring means also really important because it might further to uncover some defects which might not have been detected earlier.

Q133) Explain about from Continuous Testing

From the above goal of Continuous Integration which is to take this application excuse to close users are primarily providing continuous delivery. This backside is completed out any adequate

number about unit testing and automation testing. Hence, we must validate that this system created and integrated with all the developers that work as required.

Q134) Explain about from Continuous Delivery.

Continuous Delivery means an extension of Constant Integration which primarily serves to make the features which some developers continue developing out on some end users because soon as possible. During this process, it passes through several stages of QA, Staging etc., and before for delivery to the PRODUCTION system.

Q135) What are the tasks also responsibilities of DevOps engineer?

In this role, you will work collaboratively including software engineering teams and systems. Help automate also streamline our procedures and processes. Build also maintain tools for deployment, monitoring, including operations. And troubleshoot and resolve problems in our dev, search and production environments.

Q136) What is defined DevOps engineer should know?

DevOps Engineer goes including developers and that IT staff to manage this code releases. They live both developers who become involved through deployment including web services or sysadmins that become a passion for scripting and coding more move into the development design where only can develop this planning from search also deployment.

Q137) How much makes any DevOps engineer make?

A lead DevOps engineer can get between \$137,000 including \$180,000, according to April 2018 job data of Glassdoor. The common salary from any lead DevOps engineer based at the Big Apple is \$141,452.

Q138) What mean the specific skills required for a DevOps engineer?

While tech abilities are a must, strong DevOps engineers further possess this ability to collaborate, multi-task, also always place that customer first. critical skills that all DevOps engineer requirements for success.

Q139) What is DevOps also why is it important?

Implementing the new approach would take in many advantages on an organization. A seamless collection up can be performed in the teams of developers, test managers, and operational executives also hence they can work in collaboration including each other to achieve a greater output on a project.

Q140) What is means by DevOps lifecycle?

DevOps means an agile connection between development including operations. It means any process followed by this development because well because of help drivers clean of this starting of this design to production support. Understanding DevOps means incomplete excuse estimated DevOps lifecycle.

Tools for an efficient DevOps workflow. A daily workflow based at DevOps thoughts allows team members to achieve content faster, be flexible just to both experiments also deliver value, also help each part from this organization use a learning mentality.

Q142) Can you make DevOps without agile?

DevOps is one about some key elements to assist you to achieve this. Can you do agile software evolution without doing DevOps But managing agile software development and being agile are a couple really different things.

Q143) What exactly defined is DevOps?

DevOps is all of bringing commonly the structure also process of traditional operations, so being support deployment, including any tools, also practices of traditional construction methods so as source control also versioning.

Q144) Need for Continuous Integration:

- Improves the quality of software.

- Reduction in time taken to delivery

- Allows dev team to detect and locate problems early

Q145) Success factor for the Continuous Integration

Maintain Code Repository

Automate the build

Perform daily checkin and commits to baseline

Test in clone environment

Keep the build fast

Make it easy to get the newest deliverables

Q146) Can we copy Jenkins job from one server to other server?

Yes, we can do that using one of the following ways

We can copy the Jenkins jobs from one server to other server by copying the corresponding jobs folder.

We can make a copy of the existing job by making clone of a job directory with different names

Rename the existing job by renaming the directory

Q147) How can we create the backup and copy in Jenkins?

We can copy or backup, we need to backup JENKINS_HOME directory which contains the details of all the job configurations, build details etc.

Q148) Difference between poll scm and build periodically

Poll SCM will trigger the build only if it detects the change in SCM, whereas Build Periodically will trigger the build once the given time period is elapsed.

Q149) What is difference between docker image and docker container?

Docker image is a readonly template that contains the instructions for a container to start.

Docker container is a runnable instance of a docker image

Q150) What is Application Containerization?

It is a process of OS Level virtualization technique used to deploy the application without launching the entire VM for each application where multiple isolated applications or services can access the same Host and run on the same OS.

Q151) syntax for building docker image

```
py docker build f <filename> -t imagename:version
```

Q152) running docker image

```
py docker run dt restart=always p <hostport>:<containerport> -h <hostna  
<hostvolume>:<containervolume> imagename:version
```

Q153) How to log into a container

```
py docker exec it <containerID> /bin/bash
```

Q154) What is Puppet?

Puppet is a Configuration Management tool, Puppet is used to automate administration tasks.

Q155) What is Configuration Management?

- Configuration Management is the System engineering process. Configuration Management applied over the life cycle of a system provides visibility and control of its performance, functional, and physical attributes recording their status and in support of Change Management.

Q156) List the Software Configuration Management Features.

- Enforcement

- Cooperating Enablement

- Version Control Friendly

Q157) List out the 5 Best Software Configuration Management Tools.

CFEngine Configuration Tool.

CHEF Configuration Tool

Ansible Configuration Tool

Puppet Configuration Tool.

SALTSTACK Configuration Tool.

Q158) Why should Puppet be chosen?

It has good community support

Easy to Learn Programming Language DSL

It is open source

Q159) What is Saltstack?

•

SaltStack is based on Python programming & Scripting language. Its also a configuration tool. Saltstack works on a non-centralized model or a master-client setup model. it provides a push and SSH methods to communicate with clients.

•

Q160) Why should Puppet to be chosen?

•

There are Some Reason puppet to be chosen.

Puppet is open source

Easy to Learn Programming Language DSL

Puppet has good community support

Q161) Advantages of VCS

1. Multiple people can work on the same project and it helps us to keep track of the files and documents and their changes.
2. We can merge the changes from multiple developers to single stream.
3. Helps us to revert to the earlier version if the current version is broke.
4. Helps us to maintain multiple version of the software at the same location without rewriting.

Q162) Advantages of DevOps

Below are the major advantages

Technical:

1. Continuous software delivery
2. Less Complexity
3. Faster Resolution

Business:

1. Faster delivery of the features
2. More stable operating environment
3. Improved communication and collaboration between various teams

Q163) Use cases where we can use DevOps

1. Explain the legacy / old procedures that are followed to develop and deploy software
2. Problems of that approach
3. How can we solve the above issues using DevOps.

For the 1st and 2nd points, development of the application, problems in build and deployment,

problems in operations, problems in debugging and fixing the issues

For 3rd point explain various technologies we can use to ease the deployments, for development, explain about taking small features and development, how it helps for testing and issue fixing.

Q164) Major difference between Agile and DevOps

Agile is the set of rules/principles and guidelines about how to develop a software. There are chances that this developed software works only on developer's environment. When we move the software to public consumption and deploy in production environment, we will use the DevOps tools and Techniques for the operation of that software.

In a nutshell, Agile is the set of rules for the development of a software, but DevOps focus more on Development as well as Operation of the Developed software in various environments.

Q165) What Are the Benefits Of Nosql?

Non-relationals and schema-less data models

Low latency and high performance

Highly scalable

Q166) What Are Adoptions Of Devops In Industry?

Use of the agile and other development processes and methods.

Demand for an increased rate of the production releases from application and business.

Wide availability of virtuals and cloud infrastructure from both internal and external providers;

Increased usage of the data center ,automation and configuration management tools;

Increased focus on the test automation and continuous integration methods;

Best practices on the critical issues.

Q167) How Is the Chef Used As a Cm Tool ?

Chef is the considered to be one of the preferred industry-wide CM tools. Facebook migrated its

an infrastructure and backend IT to the Chef platform, for example. Explain how to the Chef helps you to avoid delays by automating processes. The scripts are written in Ruby. It can integrate with a cloud-based platforms and configure new systems. It provides many libraries for the infrastructure development that can later to be deployed within a software. Thanks to its centralized management system, one of the Chef server is enough to be used as the center for deploying various policies.

Q168) Why Are the Configuration Management Processes And Tools Important ?

Talk about to multiple software builds, releases, revisions, and versions for each other software or testware that is being developed. Move on to explain the need for storing and maintaining data, by keeping track of the development builds and simplified troubleshooting. that key CM tools that can be used to the achieve these objectives. Talk about how to tools like Puppet, Ansible, and Chef help in automating software deployment and configuration on several servers.

Q169) Which Are the Some Of the Most Popular Devops Tools ?

The most popular DevOps tools included`

Selenium

Puppet

Chef

Git

Jenkins

Ansible

Q170) What Are the Vagrant And Its Uses?

Vagrant used to virtual box as the hypervisor for virtual environments and in current scenario it is also supporting the KVM. Kernel-based Virtual Machine.

Vagrant is a tool that can created and managed environments for the testing and developing

Q171) How to Devops Is Helpful To Developers ?

To fix the bug and implements new features of the quickly. It provides to the clarity of communications among team members.

Q172) Name of The Popular Scripting Language Of the Devops ?

Python

Q173) List of The Agile Methodology Of the Devops?

DevOps is a process

Agile is the same as DevOps.

Separate group are framed.

It is problem solving.

Developers managing production

DevOps is the development-driven release management

Q174) Which Are The Areas of Devops Are Implemented?

Production Development

Creation of the productions feedback and its development

IT Operations development

Q175) The Scope For SSH ?

SSH is a Secure Shell which provides users with a secure, encrypted mechanism to log into systems and transfer files.

To log out the remote machine and worked on command line.

To secure encrypted of the communications between two hosts over an insecure network.

Q176) What Are The Advantages Of Devops With Respect To the Technical And Business Perspective?

Technical benefits

Software delivery is continuous.

Reduces Complexity in problems.

Faster approach to resolve problems

Manpower is reduced.

Business benefits

High rate of delivering its features

Stable operating environments

More time gained to Add values.

Enabling faster feature time to market

Q177) What Are The Core Operations Of the Devops In Terms Of the Development And Infrastructure ?

The core operations of DevOps

Application development

Code developing

Code coverage

Unit testing

Packaging

Deployment With infrastructure

Provisioning

Configuration •

Orchestration

Deployment •

Q178) What Are The Anti-patterns Of Devops?

•
A pattern is common usage usually followed. If a pattern of the commonly adopted by others does not work for your organization and you continue to blindly follow it, you are essentially adopting an anti-pattern. There are myths about DevOps.

•
Some of them include

•
DevOps is a process

Agile equals DevOps

•
We need a separate DevOps group

Devops will solve all our problems

DevOps means Developers Managing Production

DevOps is Development-driven release management

DevOps is not development driven.

DevOps is not IT Operations driven.

•
pŷ We can t do DevOps We re Unique

pŷ We can t do DevOps We re got the wrong people

Q179) What are The Most Important Thing Devops Helps Us Achieve?

The most important thing that the DevOps helps us achieve is to get the changes into production as quickly as possible while that minimizing risks in software quality assurance and compliance. This is the primary objective of DevOps.

For example clear communication and better working relationships between teams i.e. both of the

Ops team and Dev team collaborate together to deliver good quality software which in turn leads to higher customer satisfaction.

Q180) How Can Make a Sure New Service Is Ready For The Products Launched?

Backup System

Recovery plans

Load Balancing

Monitoring

Centralized logging

Q181) How to All These Tools Work for Together?

Given below is a generic logical of the flow where everything gets are automated for seamless delivery. However, its flow may vary from organization to the organization as per the requirement.

Developers develop the code and this source code is managed by Version Control System of the tools like Git etc.

Developers send to this code of the Git repository and any changes made in the code is committed to this Repository.

Jenkins pulls this code from the repository using the Git plugin and build it using tools like Ant or Maven.

Configuration managements tools like puppet deploys & provisions testing environment and then Jenkins releases this code on the test to environment on which testing is done using tools like selenium.

Once the code are tested, Jenkins send it for the deployment on production to the server (even production server are provisioned & maintained by tools like puppet).

After deployment Its continuously monitored by tools like Nagios.

Docker containers provides testing environment to the test the build features.

Q182) Which Are The Top Devops Tools?

The most popular DevOps tools are mentioned below

Git Version Control System tool

Jenkins Continuous Integration tool

Selenium Continuous Testing tool

Puppet, Chef, Ansible are Configuration Management and Deployment tools

Nagios Continuous Monitoring tool

Docker Containerization tool

Q183) How to Devops Different From the Agile / Sdlc?

Agile are the set of the values and principles about how to produce i.e. develop software.

Example if you have some ideas and you want to turn those ideas into the working software, you can use the Agile values and principles as a way to do that. But, that software might only be `pŷ working on developer s laptop or in a test environment. You want a way` repeatably move that software into the production infrastructure, in a safe and simple way. To do that you needs are DevOps tools and techniques.

You can summarize by saying Agile of the software development methodology focuses on the development for software but DevOps on the other hand is responsible for the development as `pŷ well as deployment of the software to the safest and most reliable way t` blog that will give you more information of the evolutions of the DevOps.

Q184) What Is The Need For Devops?

According to me, this should start by explaining the general market trend. Instead of the releasing big sets of the features, companies are trying to see if small features can be transported to their customers through a series of the release trains. This have many advantages like quick feedback from the customers, better quality of the software etc. which in turn leads to the high customer satisfaction.

To achieve this, companies are required to

Increase deployment frequency

Lower failure rate of new releases

Shortened lead time between fixes

Faster mean time to recovery of the event of new release crashing

Q185) What is meant by Continuous Integration?

It is the development practice that requires developers to integrate code several times a day. Each check-in then verified by an automated build, allowing teams to detect problems early.

Q186) Mention some of the useful plugins in Jenkins.

Below, I have mentioned some important are Plugins:

Maven 2 project

Amazon EC2

HTML publisher

Copy artifact

Join

Green Balls

Q187) What is Version control?

It is the system that records changes are the file or set of the files over time so that you can recall specific versions later.

Q188) What are the uses of Version control ?

Revert files back to a previous state. Revert to the entire project back to a previous state.

Compare changes over time.

See who last modified the something that might to be causing a problem.

Who introduced an issue and when.

Q189) What are the containers?

Containers are the of lightweight virtualization, heavier than chroot but they provide isolation among processes

Q190) What is meant by Continuous Integration?

It is a development practice that requires are developers to integrate code into the shared repository several times a day.

Q191) What is a PTR in DNS?

Pointer (PTR) record to used for the revers DNS (Domain Name System) lookup.

Q192) What testing is necessary to insure a new service is ready for production?

Continuous testing

Q193) What is Continuous Testing?

It is the process of executing on tests as part of the software delivery pipelines to obtain can immediate for feedback is the business of the risks associated with in the latest build.

Q194) What is Automation Testing?

Automation testing or Test Automation is a process of the automating that manual process to test the application/system under test.

Q195) What are the key elements of continuous testing?

Risk assessments, policy analysis, requirements traceabilities, advanced analysis, test optimisation, and service virtualisations

Q196) What are the Testing types supported by Selenium?

Regression testing and functional testing

Also Read>> [Top Selenium Interview Questions & Answers](#)

Q197) What is Puppet?

It is a Configuration Management tool which is used to automate administration of the tasks.

Q198) How does HTTP work?

The HTTP protocol works in a client and server model like most other protocols. A web browser using which a request is initiated is called as a client and a web server's software which responds to that request is called a server. World Wide Web Consortium of the Internet Engineering Task Force are two important spokes in the standardization of the HTTP protocol.

Q199) Describe two-factor authentication?

Two-factor authentication is the security process in which the user provides two means of the identification from separate categories of credentials.

Q200) What is git add?

adds the file changes to the staging area

Q201) What is git commit?

Commits the changes to the HEAD (staging area)

Q202) What is git push?

Sends the changes to the remote repository

Q203) What is git checkout?

Switch branch or restore working files

Q204) What is git branch?

Creates a branch

Q205) What is git fetch?

Fetch the latest history from the remote server and updates the local repo

Q206) What is git merge?

Joins two or more branches together

Q207) What is git pull?

Fetch from and integrate with another repository or a local branch (git fetch + git merge)

Q208) What is git rebase?

Process of moving or combining a sequence of commits to a new base commit

Q209) What is git revert?

To revert a commit that has already been published and made public

Q210) What is git clone?

Ans: clones the git repository and creates a working copy in the local machine

Q211) What is the difference between the Annie Playbook book and the characters?

Roles

The characters are a restructured entity of a play. Plays are on playbooks.

A set of functions to accomplish the specific role. Maps between hosts and roles.

Example: Common, Winners. Example: site.yml, fooservers.yml, webservers.yml.

Q212) How do I see all the ansible_ variables list?

By naturally collecting facts about the machines, these facts can be a in templates. To see a list of all the facts about a computer, you can run the following activity:

```
Ansible -m system hostname
```

It will print a dictionary of all the facts available for that particular host.

Q213) What is Docker?

Docker is a container technology that connects your application and all its functions into the form of containers to ensure that you are running uninterrupted in any situation of your use.

Q214) What is the Docker film?

Docker is the source of the Docker container. Or in other words, Docker pictures are used to create containers.

Q215) What is the Docker container?

Docker Container is a phenomenon of the film.

Q216) Do we consider Docker as a smart way?

Of course, we !! The only difference between dynamic algorithms and Docker is that the dynamic process is implemented for the development section and activates both Docker development and functionality.

Q217) What are the benefits of using Docker?

Data personality and copy

Get high

only one. A directory directory in the repository

High disk usage and network performance

Joint friendship

Git can use any kind of projects.

Q218) What is kernel?

A kernel, the software that can easily change the hardware interfaces of your computer.

Q219) What is the difference between grep -i and grep -v?

I accept this value

L) `ls | grep -i docker`

Dockerfile

`docker.tar.gz`

`ls | grep -v docker`

Desktop

Dockerfile

Documents

Downloads

You can not find anything with name `docker.tar.gz`

Q220) You can define a specific location for the file

This feature is generally used to give the server a replacement location. Let me tell you on the computer below and I want to create 1GB swap space,

```
dd if = / dev / zero = = / swapfile1 bs = 1G count = 1
```

Q221) What is the concept of sudo in Linux?

Pseudo is an application for Unix-and Linux-based systems that provide the ability to allow
pŷspecific users to use specific system commands in the system s root lev

Q222) What is Jenkins pipe?

pŷJenkins pipeline (or simply tube) is an additional package that support
continuous delivery tube in Jenkins.

Q223) How to stop and restart the toxin container?

Stop container: stop container container ID

Reboot the Tucker Container now: Docer Re-container ID

Q224) Which sites are running by Tagore?

Docax is running on Linux and Cloud platforms only:

Ubuntu 12.04 LTS +

Fedora 20+

RHEL 6.5+

CentOS 6+

Gentoo

ArchLinux

openSUSE 12.3+

CRUX 3.0+

Cloud:

Amazon EC2

Google Compute Engine

Microsoft Azure

Rackspace

Since support is not supported, do not work on Windows or Mac for token production, yes, even on windows you can use it for testing purposes

Q225) What are the tools used for taxi networking?

We usually use karfs and taxi bear to do taxi networking.

Q226) What does Tucker write?

You would like to have a number of taxiers containers, and at that time you need to create a file that creates a docer and type the command to make a taxi-up. It runs all containers mentioned in the docer compose file.

Q227) What is a scrum?

Using scrime based on your complex software and product development task as small particles, it uses reboots and additional procedures. Each replay is two weeks. Scrum has three characters: product owner, scrum master and team

Q228) Purpose for SSH?

SSH is a secure shell that allows users to login to a secure, encrypted mechanism into computers and transmitting files.Exit the remote machine and work on the command line.

Protect encrypted communications between the two hosts on an unsafe network.

Q229) Are DevOps implemented?

Product development

Creating product feedback and its development

IT Activities Development.

Q230) Do you want to list the active modes of DevOps?

DevOps is a process

Like the active DevOps.

A separate group is configured.

This will solve the problem.

Manufacturers manufacturing production

DevOps is a development-driven output management

Q231) Do you list the main difference between active and DevOffice?

Agile:

There is something about dynamic software development

Devops:

DevOps is about software deployment and management.

DevOps does not replace the active or lean. By removing waste, by removing gloves and improving regulations, it allows the production of rapid and continuous products.

Q232) For the popular scripting language of DevOps?

Python

Q233) How does DevOps help developers?

To correct the defect and immediately make innovative attributes.

This is the accuracy of the coordination between the members of the group.

Q234) What is Vegand and its Uses?

Virtual virtual box has been used as a hyperversion for virtual environments and in the current scenario it supports KVM. Kernel-based virtual machine

Vegant is a tool for creating and managing the environment for making software and experiments.

Tutorials Tutorial Free Demo

Q235) What is the main difference between Linux and Unix operating systems?

Unix:

It belongs to the multitasking, multiuser operating system family.

These are often used on web servers and workstations.

It was originally derived from AT & T Unix, which was started by the Bell Labs Research Center in the 1970s by Ken Thompson, Dennis Ritchie, and many others.

Operating systems are both open source, but the comparison is relatively similar to Unix Linux.

Linux:

Linux may be familiar to each programming language.

These personal computers are used.

The Unix operating system is based on the kernel.

Q236) How can we ensure how to prepare a new service for the products launched?

Backup system

Recovery plans

Load balance

Tracking

Centralized record

Q237) What is the benefit of NoSQL?

Independent and schema-less data model

Low latency and high performance

Very scalable

Q238) What is the adoption of Devokos in the profession

1. Use of active and other developmental processes and methods.

1. An increased ratio of production output is required from use and business.

3. Virtual and Cloud Infrastructure Transfers from Internal and Outdoor Providers;

4. Increased use of data center, automation and configuration management tools;

5. Focusing on testing automation and serial coordination systems;

6. Best Practices in Important Problems

Q239) What are the benefits of NoSQL database on RDBMS?

Benefits:

1. ETL is very low
2. Support for structured text is provided
3. Changes in periods are handled
4. Key Objectives Function.
5. The ability to measure horizontally
6. Many data structures are provided.
7. Vendors may be selected.

Q240) The first 10 capabilities of a person in the position of DevOp should be.

The best in system administration

Virtualization experience

Good technical skills

Great script

Good development skills

Chef in the automation tool experience

People management

Customer service

Real-time cloud movements

py Who s worried about who

Q241) What is PTR in DNS?

The PNS (PTR) registration is used to turn the search DNS (Domain Name System).

Q242) What do you know about DevOps?

Your answer should be simple and straightforward. Start by explaining the growing importance of DevOps in information technology. Considering that the efforts of the developments and activities to accelerate the delivery of software products should be integrated, the minimum failure rate.

DevOps is a value-practical procedure in which the design and performance engineers are able to capture the product level or service life cycle across the design, from design and to the design level

py Q 2 4 3) W h y w a s D e v s s o i m p o r t a n t i n t h e p a s t f e w y e

Before discussing the growing reputation of DevOps, discuss the current industry scenario. The big players like Netflix and Facebook begin with some examples of how this business can help to py develop and use unwanted applications. Facebook s continuous use and and how to measure it, while using Facebook to ensure the quality of the experience. Hundreds of lines are implemented without affecting ranking, stability and security. Dipops Training Course

Your next application must be Netflix. This streaming and on-the-video video company follows similar procedures with complete automated processes and systems. Specify user base of these two companies: Facebook has 2 billion users, Netflix provides online content for more than 100 million users worldwide. Reduced lead time between the best examples of bugs, bug fixes, runtime and continuous supplies and the overall reduction of human costs.

Q244) What are some of the most popular DevOps tools?

The most popular DevOps tools include:

Selenium

Puppet

Chef

Git information

Jenkins

Ansible

Tucker Tipps Online Training

Q245) What is Version Control, and why should VCS use?

Define the control bar and talk about any changes to one or more files and store them in a centralized repository. VCS Tools remembers previous versions and helps to:

Make sure you do not go through changes over time.

Turn on specific files or specific projects to the older version.

Explore the problems or errors of a particular change.

Using VCS, developers provide flexibility to work simultaneously on a particular file, and all changes are logically connected.

Q246) Is There a Difference Between Active and DevOps? If yes, please explain

As a DevOps Engineer, interview questions like this are very much expected. Start by explaining the clear overlap between DevOps and Agile. Although the function of DevOps is always synonymous with dynamic algorithms, there is a clear difference between the two. Agile theories are related to the soft product or development of the software. On the other hand, DevOps is handled with development, ensuring quick turnaround times, minimal errors and reliability by installing the software continuously.

Q247) Why are structural management processes and tools important?

Talk about many software developments, releases, edits and versions for each software or testware. Describe the need for data storage and maintenance, development of developments and tracking errors easily. Do not forget to mention key CM tools that can be used to achieve these goals. Talk about how the tools, such as puppet, ansible, and chef are useful in automating software deployment and configuration on multiple servers.

Q248) How is the chef used as a CM tool?

Chef is considered one of the preferred professional CM Tools. Facebook has changed its infrastructure and the Chef platform keeps track of IT, for example. Explain how the chef helps to avoid delays by automating processes. The scripts are written in ruby. It can be integrated into cloud-based platforms and configures new settings. It provides many libraries for infrastructure development, which will then be installed in a software. Thanks to its centralized management system, a chef server is sufficient to use various policies as the center of ordering.

Q 249) How do you explain the concept of Infrastructure as Code?

This is a good idea to talk about IAC as a concept, sometimes referred to as a programming program, where the infrastructure is similar to any other code. The traditional approach to managing infrastructure is how to take a back seat and how to handle manual structures, unusual tools and custom scripts

Q250) List the essential DevOps tools.

Git information

Jenkins

Selenium

Puppet

Chef

Ansible

Nagios

Laborer

Monit

El-Elistorsch, Lestastash, Gibbon

Collectd / Collect

Git Information (Gitwidia)

Q251) What are the main characters of DevOps engineers based on growth and infrastructure?

DevOps Engineer's major work roles

Application Development

Developing code

Code coverage

Unit testing

Packaging

Preparing with infrastructure

Continuous integration

Continuous test

Continuous sorting

Provisioning

Configuration

Orchestration

Deployment

Q252) What are the advantages of DevOps regarding technical and business perspective?

Technical Advantages:

Software delivery continues.

Problems reduce austerity.

Fast approach to solving problems

Humans are falling.

Business Benefits:

The higher the rate for its features

Fixed operating systems

It took too long to add values.

Run fast time for the market

Learn more about DevOps benefits from this information blog.

Q253) Purpose for SSH?

SSH is a secure shell that allows users to login to a secure, encrypted mechanism into computers and transmitting files.

Exit the remote machine and work on the command line.

Protect encrypted communications between the two hosts on an unsafe network.

Q254) Which part of DevOps is implemented?

Product development

Creating product feedback and its development

IT Activities Development

Q255) List the DevOps s active algorithm.

DevOps is a process

Like the active DevOps.

A separate group is configured.

This will solve the problem.

Manufacturers manufacturing production

DevOps is a development-driven output management

Q256) List the main difference between active and devOps.

Agile:

There is something about dynamic software development

Devops:

DevOps is about software deployment and management.

DevOps does not replace the active or lean. By removing waste, by removing gloves and improving regulations, it allows the production of rapid and continuous products.

Q257) For the popular scripting language of DevOps.

Q258) How does DevOps help developers?

Correct the error and activate new features quickly.

It provides clarity of clarity between the members of the group.

Q259) What is the speed and its benefits?

Virtual virtual box has been used as a hyperversion for virtual environments and in the current scenario it supports KVM. Kernel-based virtual machine

Vegant is a tool for creating and managing the environment for making software and experiments.

Q260) What is the use of Anuj?

It is mainly used for information technology infrastructure to manage or use applications for remote applications. We want to sort an app on the nodes of 100 by executing one command, then the animation is actually in the picture, but you need to know or run some knowledge on the animated script.

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Ansible Interview Questions and Answers

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By this Ansible Interview Questions and answers, many students are got placed in many reputed companies with high package salary. So utilize our Ansible Interview Questions and answers to grow in your career.

Q1) What do you know about Ansible?

Answer: Ansible is the well-recognized open-source platform written and developed in Python language. This platform facilitates task automation, configuration management, and application deployment. It uses the SSH approach to deploy the application without any specific downtime.

Q2) Explain the use of Ansible?

Answer: automation is a crucial part of any software development process. The Ansible platform used in managing various IT infrastructure. It is also used for deploying software applications to remote nodes.

Q3) What are the major advantages of using Ansible?

Answer: Using Ansible can be beneficial in numerous ways. Then three of its advantages are mentioned below:

- Agentless

- Very low overhead and easy to learn

- Great performance

- Consistent with security

- Reliable

Q4) Explain the Ansible Galaxy.

Answer: As Ansible facilitates bundling automation content. This makes it reusable. The Ansible galleries are needed here to share such Ansible roles. In simple words, the Ansible gallery is the

tool which is merged with the Ansible. This integration creates the base directory structure.

Q5) What is continuous delivery in terms of Ansible?

Answer: It is the practice that involves delivering the software as soon as it is developed. For this, there is a need to use the versioning control system. Even in the live production system the software consistently updates.

Q6) How do Ansible works?

Answer: There are two main categories of server type in Ansible: the nodes and controlling machine. It simply uses the SSH protocol to deploy modules to nodes. These nodes stored in remote nodes interact with Ansible Machine. The Ansible has the capability to manage more than 100 nodes in one single system.

Q7) Name different modules in Ansible.

Answer: In Ansible there are two major types of modules: core modules and extra modules.

Core Modules: These modules are the first preference of the Ansible team. The core modules come with Ansible software.

Extra Modules: The extra modules are reusable but for some reason, they always get a lower rate of response to issues. These are also maintained and managed by the Ansible Community. Although the extra modules are merged with Ansible but one can use it separately in the future.

Q8) Explain the Ansible tower.

Answer: The Ansible is the web-based center which is used for all kind of automation tasks. There is no requirement to install the daemons to connect with other controlling machines as it is an agentless model. The Ansible tower allows you free usage till ten nodes.

Q9) What is the difference between Ansible and Puppet?

Answer: Ansible: The Ansible has the simplest technology written in the YAML language. It can

be quickly installed and deployed because of agent-less architecture. The Ansible supports automated workflow for continuous delivery.

Puppet: The puppet has complex technology in comparison to Ansible. This is written in Ruby language. To access this, it is important to learn Puppet DSL.

Q10) Give a brief about Ansible architecture.

Answer: The Ansible is highly based on the agent-less architecture. This structure enables you to connect your nodes. The pool of modules can dwell on any system without any daemons, server or the database. The SSH protocol enables it to execute these modules. It removes them as soon as work is done.

Q11) What is the difference between the environment variable name?

Answer: The variable name can be created by adding strings. On the other hand, for the access of environment variable, there is a need to access the existing variables. The variable name uses `ipv4` for the available name. For remote environment variables `{{ ansible_env.SOME_VARIABLE }}` is used.

Q12) What are the things Ansible can do?

Answer: With the Ansible these are the following things one can do:

- Deployment of application
- Configuration management
- Task automation
- IT orchestration

Q13) What language Ansible is written in?

Answer: The Ansible is written in PowerShell and Python programming language.

Q14) Can you please explain the meaning of the red hat Ansible?

Answer: The red hat Ansible and Ansible both all the great automation platforms. The end to end complete automation of these platforms makes it capable to provide below-mentioned functionalities:

Application deployment

Provisioning

Management and configuration of IT systems

Orchestrating workflows

Q15) What are the requirements of the Ansible server?

Answer: For the window users, there is a need for the virtual machine in which the Linux should be installed. Otherwise, the Ansible requires Python 2.6 version or the higher one.

Q16) Is it possible to create own modules with Ansible?

Answer: Yes, the Ansible allows us to create the modules within it. As it is an open-source tool that majorly runs on Python. This means anyone who has little bit knowledge of programming can create their own modules without any problem within Ansible.

Q17) What is the best way to generate crypto password module?

Answer: The availability of mkpassword utility in Linux is the best option for generating the crypto passwords. For the OS X users who don't have this utility installed on y generate crypto passwords by using Python.

Q18) Name the different components of Ansible.

Answer: Ansible automation is consist of the following elements:

Inventories

Modules

APIs

Host

Playbooks

Cloud

•

Networking

Q19) How can we make content redistributable and reusable?

Answer: In Ansible there are three major ways to reuse files in playbooks which include import and roles.

•

Q20) Explain the way to access shell environment variables in Ansible.

Answer: For accessing shell environment variables in Ansible users need plugin. There are some codes that you have to write for this. The codes are mentioned below:

python # &

vars :

Q21) Is it possible to keep secret data in the playbook?

Answer: Yes, it is possible to keep secret data in your Ansible content with the use of Vault in playbooks. With V mode you have to use some commands to hide sensitive data from others.

Q22) Explain ad-hoc commands.

Answer: The ad-hocs are used to take action on the hosts without writing the playbooks. So, if you have to reboot the hosts in a specific group then there are two ways to do that. You can either create a new playbook or you can simply use the one-off ad-hoc command.

Q23) Explain the term fact in Ansible.

Answer: In the Ansible environment, fact is the most commonly address used by Ansible to get information about the host and store. The Ansible runs the setup modules to generate these facts.

Q24) What is the right way to copy files recursively onto a target host?

Answer: This copy module of Ansible has recursive parameters. You can synchronize modules if you need to perform more efficient for a huge number of files. It is important to use commands with synchronize modules.

Q25) Explain the meaning of Ansible tasks.

Answer: The Ansible tasks are majorly used to break up bits of configuration policy in little files. These small blocks of code that are used to automate any process.

Q26) Explain the Ansible role and what makes it different from the playbooks?

Answer: The Ansible role is completely another level of abstraction. These are used to organize playbooks. It provides an independent structure and a reusable collection of various things. It includes templates, files, variables, tasks, etc.

Q27) Why Ansible vaults are used?

Answer: The Ansible vaults are used to keep all your secret data safe. It facilitates the encryption of sensitive data but also integrates them into your playbooks. The files can either be entirely encrypted or unencrypted, the vault is implemented with file-level granularity. The Ansible vaults are very user-friendly.

Q28) Explain the features of the Ansible tower.

Answer: The Ansible towers display everything happening in the Ansible environment like inventory status, hosts and other recent activities. It also integrates the notifications about all the necessary updates. The multi-playbook workflow feature of Ansible tower makes it easier to chain all the playbooks. It is also useful for scheduling Ansible jobs.

Q29) How can you connect other devices within Ansible?

Answer: After installing Ansible on the controlling systems, one inventory file is created which particularly explains the connection between other nodes. The SSH protocol can be used to make a connection. If you want to check its connection, then you can use the ping module. The command to check this connection is: `ansible -m ping all`

Q30) Does Ansible support AWS?

Answer: There are hundreds of modules present in Ansible that support AWS. It includes:

- Autoscaling groups

- CloudFormation

- Virtual Private Cloud (VPC)

- Security Groups

- Relational Database Service (RDS)

- CloudTrail

- Elastic Cloud Compute (EC2)

Q 31) Which one is not a valid value of state argument module?

- file

2. absent
3. folder
4. link

Answer: Folder

Q32) Which module can be utilized to copy files from a remote machine to a control machine?

1. ping
2. fetch
3. copy
4. move

Answer: fetch

Q33) If you do not need any facts from the host, what command would you use?

1. gather_facts: no
2. gather_facts: False
3. both gather_facts: no or gather_facts: False
4. gather_facts: y

Answer: gather_facts: no

Q34)Where is Inventory file located by default?

1. /etc/ansible/hosts

2. /etc/inventory
3. /etc/configurations
4. /etc/ansible

Answer: /etc/ansible/hosts

Q35) What is the default location for Ansible?

Answer: Default location for Ansible modules is /usr/share/ansible

Q36) What module can be utilized to stop a playbook execution for a specific period?

1. Sleep
2. Pause
3. Stop
4. Suspend

Answer: Pause

Q37) Which module will you utilize to create a directory?

1. File
2. template
3. fetch
4. copy

Answer: File

Q38) Which module can be used to force a handler to run in between

two tasks?

1. Flush
2. None of the options
3. assest
4. meta

Answer: meta

Q39) Which Ansible module is utilized for managing docker services and containers?

1. docker_service
2. docker_login
3. docker_image
4. docker

Answer: docker_service

Q40) Ansible has two types of servers. Select the appropriate answer from the given options.

1. only node
2. controlling machines and nodes

Answer: controlling machines and nodes

Q41) How to define the number of parallel processes while communicating to remote hosts?

1. pipelining
2. Forks
3. become_method
4. become

Answer: Forks

Q42) What is the default forks value in configuration file?

1. 1
2. 5
3. 7
4. depends upon hosts in the inventory

Answer: 5

Q43) How can you reduce the number of SSH connections required?

1. accelerate port
2. pipelining
3. forks
4. become_method

Answer: pipelining

Q44) Which configuration management is agentless

Ansible

Puppet

chef

CFEngine

Answer: Ansible

Q45) Ansible is generally referred to as what?

Infrastructure as code

Orchestration Engine

Configuration management

All the options

Answer: All the options

Q46) How would you write comments on Jinja2:

1. `{{}}`

2. `{##}`

3. `{%%}`

Answer: `{##}`

Q47) What is the web-based interface used to access projects, inventories, job templates and jobs Ansible?

Answer: Ansible Tower Interface

Q48) How to Install Ansible in the Redhat Linux operating system?

Answer:

```
yum install ansible
```

Once the installation is completed, check the ansible version :

```
python ansible version
```

If ansible package is not available in the default yum repositories, we need to manually download.

Q49) How to set SSH-based access from Controller to Managed Nodes which is recommended by Ansible?

Answer: It provides passwordless auth to access the managed servers

In Control Server.

Step 1: Create user for ansible `useradd -d /home/gangboard -m gangboard passwd gangboard`

Step 2: Switch to ansible user

Step 3: `python su gangboard`

Step 4: Generate ssh key `ssh-keygen -t rsa`

Step 5: `/home/gangboard/.ssh/id_rsa.pub` => Public Key is in this file which needs to be copied to nodes `~/.ssh/authorized_keys`

Q50) Perform the following setps on all Managed nodes.

Answer:

Step 1: Create user for ansible `useradd -d /home/tadmin -m tadmin passwd tadmin`

Step 2: `python Switch to ansible user su tadmin`

Step 3: Create .ssh directory mkdir .ssh

Step 4: Change permission to 700 for .ssh chmod 700 .ssh/

Step 5: Change Ownership to tadmin for .ssh chown tadmin:tadmin .ssh/

Step 6: create an authorized_keys file under .ssh and paste the public key from controller and save it

Step 7: cd .ssh/ , vi authorized_keys

Step 8: Copy & paste the public key from the Controller server to this file
[/home/tadmin/.ssh/id_rsa.pub]

Now you able to access the server without a password.

Q51) What is inventory in Ansible and how to update it?

Answer:

The inventory files contain a host list of managed nodes, when ansible accessing the client it look into inventory.

The default inventory file for Ansible is located under /etc/ansible/hosts

This default inventory lookup can be overridden using -i option providing the custom inventory file

Example: ansible -i cmdb.inv main.yml Update default Inventory file /etc/ansible/hosts (as root user) [clients]

node1

node2

Q52) How to run ansible command? Briefly explain?

Answer:

Running ansible command #ansible all -m ping

ansible => Ansible command

all => Specifies the target to run the command. The target could be an individual node or group (mentioned in inventory file) or all (all the nodes in the inventory file). In this case all is used, which means that the command will be executed on all the nodes.

-m is the option that indicates that a module needs to be executed on remote nodes

ping is the name of a module. This module checks the ping status of the remote node. It has no attribute parameter (-a)

Q53) Explain the below output?

Answer:

Expected Outcome of the first command for 4 QUE

```
node1 | SUCCESS => { "changed": false, "ping": "pong" } node2 |  
SUCCESS => { "changed": false, "ping": "pong" }  
Let's understand on how to interpret the output
```

Explanation:

node1 This identified the node on which the task is done

SUCCESS - Give a confirmation that the module was run successfully

changed : false ping module doesn't do any modification on the remote node ON status. This is the reason the changed status is false

ping : pong - This is a way ping module confirms the ping reply as pong

Note: The output varies from module to module depending on how the module is

Q54) What is ansible-playbook?

Answer: The playbook is a .yml file that contains a piece of code called a module. You can have multiple tasks in a playbook and these tasks would be executed by Ansible. Playbooks have a list of remote hosts, user variables, tasks, handlers inside it.

Q55) How to write playbook, give example?

Answer: Below is the sample playbook:

```
name: Install Docker and restart service hosts: webapp become:
true tasks: name: Install Docker yum: name: docker state:
latest name: Restart Docker Service service: name: docker
state: restarted
```

Q56) which command is used to run an ansible playbook?

Answer: command to run a playbook

\$ ansible-playbook -i hosts main4.yml

-i- This is an option to specify to ansible to override the default inventory file and the inventory file specified.

main.yml: This is the playbook file

Q57) What is the use of list-task in ansible?

Answer: list-task: List all the tasks that will be executed when you run a playbook.

Q 58) what is the use of start-at-task in ansible?

Answer: start-at-task option, will start executing the task you specify and subsequent tasks are executed. The tasks above are skipped.

Q59) What is ansible variables?

Answer:

Variables are used to store values that can be later used in the playbook.

Vars: is the tag to define a variable.

Q60) How are nodes,managed by a controlling machine over?

1. They are managed by SSH and also the location of nodes are specified by controlling machine through inventory.
2. You can use ansible-vault to store sensitive information.
3. True
4. False

Answer: True

Q61) Why handlers are used in the playbook?

Answer:

Handlers are similar to tasks in executing modules. The only difference is that the handlers need to be called explicitly.

Handlers will be called only on successful change of the state i.e. when the task has done some changes on remote nodes aka. state: changed

Within tasks, handlers will be called using notify tag. Name given in as in the -name tag inside handlers

Q62) How to define handler in ansible playbook?

Answer:

•

```
handlers: name: Restart Docker Service service: name: docker
state: restarted
```

Q63) What is ansible roles?

Answer: Ansible roles consists of many playbooks. Roles are a way to group multiple tasks together into one container. These are reusable scripts.

Q64) How to create Ansible roles?

Answer: By using the following command we can create ansible roles

Ansible-galaxy init <rolename>

Q65) What are the key things required for the playbook?

Answer: Playbook may contains

Hosts

Variables (Optional)

Tasks

Q66) What are the advantages of Ansible?

py Answer: Ansible is agentless which means it doesn't require any node m
uses YAML to create playbooks which is easy to understand.

Q67) Explain about handlers in Ansible?

Answer: If we want to execute tasks whenever something changed in the configuration files then
py we need to use notify in the playbook. For example if we want to resta
configuration file changes.

Q68) What is inventory in ansible?

Answer: /etc/ansible/hosts file called as inventory. It contains the group of the server name or IP s .

Q69) Explain about ansible modules?

Answer: Ansible modules are building blocks of ansible that are reusable scripts that are used by ansible playbooks.

Q70) How will start the services using ansible?

Answer: `ansible -m service -a name= httpd state=stopped become`

Q71) What is configuration management?

Answer: Configuration management is a process of continuous deployment and continuous delivery and continuous monitoring of the many servers in less period of time to achieve deliverables.

Q72) How to execute the created roles?

Answer :

hosts: true

role:

`ansible -m apache <rolename>`

Q73) How to use existing tasks in Ansible?

Answer: by using `import_tasks`:

Q74) How to use ansible-galaxy to download roles?

Answer: `ansible-galaxy install username.rolename`

Q75) What is ansible jinja2 templates?

Answer: It is a file that contains all dynamic configurations parameters which will be having .j2 extension.

Q76) How to do role duplication and execution?

Answer: using `allow_duplicates: true`

Q77) What are the role dependencies?

Answer: Role default variables allow you to set the default variables for included or dependencies

Dependencies:

Role: tire

Role: brake

Q78) How to secure Ansible playbooks?

Answer: We have concept called ansible-vault .which encrypts the YAML files.

Q79) How to encrypt and decrypt Ansible playbooks?

Answer: Using `ansible-vault encrypt` and `ansible-vault decrypt`

Q80) How to change the existing password for ansible vault?

Answer: `ansible-vault rekey`

Q81) How to install Ansible on Linux?

Answer: First we need to install epel repo and then install ansible

Yum install epel-repo

Yum install ansible

Q82) Which module copies a dynamically generated file from control machine to target

1. template
2. file
3. fetch
4. copy

Answer: Template

Q83) How do you define ansible in the configuration management perspective?

Answer: Anything can be deployed/configured/installed by using ansible in the list of servers without even touching the server which actually doesn't need any client on the server since it operates in ssh mode. That's why it is called an agentless configuration management service

Q83) Do u know how to illustrate the working of Ansible ?

Answer: Yes, Ansible should be setup on a dedicated server which contains modules, inventories configured. Inventory contains the list of the target host which we want to connect/deploy/install/configure. That is simply a yaml file contained group name, server details. Modules are predefined in ansible which has the actual implementation definition on the ansible libraries. Host machines i.e target machines are connected via ssh and executes using python interpreter since all the definitions converted into python.

Q84) How do you define ansible is useful in the automation paradigm?

Answer: Automation is a sequence of operation which is done manually by the admin which is not possible over a thousands of server but that has to be managed from some place so ansible server is needed and all the server need not to be configured with some agent which takes operational headache all these can be overcome by the Ansible configuration management.

Q84) Do you know any API reference for Ansible ?

Answer: Yes, Ansible works on Rest API call which can be achieved by using ansible tower. It gives an option to use RBAC which is secured to access the secured ssh credentials

Q85) Will you be able to restart the target machines with Ansible?

Answer: Yes, we can restart the machines since it is OS operations, we have reboot module that has to be added in the tasks of the playbook to restart the machine

Q86) Do you know what are all the features of Ansible beyond automation?

Answer: Yes, It is not only for task automation, we can also perform beyond that. Cloud infrastructure automation can be performed using that, you can deploy the application to servers by using ansible, you can perform configuration management which is the main feature, and you can orchestrate multiple IT environment

Q87) How ansible is executing just by YAML script?

Answer: Actually Ansible is not written in YAML, it has written in python programming and Powershell. So, YAML is getting converted to it that's how it works

Q88) Do you know ansible cannot be considered as opensource?

Answer: That is completely wrong, Ansible is opensource whereas Redhat Ansible is customized by Redhat

Q89) Server requirement for Ansible how will it look like ?

Answer: Here Ansible server should have linux installed and python version should be 2.6 or higher.

Q90) So do you have an option to customize your own ansible modules?

Answer: Yes, Since it is an opensource tool, you have an option to customize it. But the clear requirement is you should be a good programmer so that you can get started to develop your own module for Ansible. You don't need any extraordinary prior experience to develop a module.

Q91) Do you know the other way around to perform ansible operations without writing playbooks?

Answer: We have an option to write our single task and execute it without even writing a playbook that is called ad-hoc commands. Which is like normal Ansible CLI commands which passes required modules and arguments for the modules, and the targeted host groups in a single command.

Q92) Do you know how do we parameterize the arguments required for the module?

Answer: This can be done in the playbook or roles when you write it, you have to use variables and its value under vars section in a playbook. If it is roles, it has to be in the vars folder and main.yaml file.

Example:

vars:

myvar1: value

myvar2: value

Q93) Will you be able to see the host machine all variables using

ansible?

Answer: Yes we have a module called debug module. Either you can write playbook or adhoc commands, both the way it can be achieved. Pass the arguments as

```
py var=hostvars[inventory_hostname] localhost this gets the variables of
```

Q94) Could you differentiate Roles and Playbooks?

Answer: Roles are written as a collection which contains tasks, vars, default vars, metadata information, handlers, files all separated in different folder whereas in playbook which contains all in a single file. Roles can be shared with ansible galaxy so that others can easily pull it without any dependency

Q95) Differentiate ask_pass and ask_sudo_pass

Answer: Yes Ask_pass default value is actually no, if you want it to enable explicitly you can set it as True. This enables option to ask password whereas ask_sudo_pass will be prompted when sudo password is required to entered by the user.

Q96) Do you know how do we make use of our ansible script reusable or redistributable ?

Answer: Yes roles is the only way we can use this. Roles ensures that can be distributed or redistributed with the updated content . This contains document which says how to use the roles.

Q97) Do we hav option to copy a file from my ansible server to all server ?

Answer: Yes, we have option to copy files from ansible servers to all the servers. We have file module which does that. You can also copy files with changing or without changing permissions, owners, groups etc.

Q98) How can u encrypt ansible passwords or any data ?

Answer: We have ansible vault which protects all the confidential information which is needs to

be protected from the end user.

Q99) How will you ensure the targeted server connection is established ?

Answer: We can use ping module which tries to ping all the servers in the inventory files. This will give pong as response if the server is pingable. The ad-hoc commands whether the servers are reachable with ansible server or not. The syntax of the commands is

```
ansible -m ping <groupname>
```

Q100) What are playbooks in ansible ?

Answer: Playbooks are the scripts that we use in Ansible. They are used as building blocks that you can use to execute on remote machine. The scripts will contain the instructions that needs to be executed on the remote machines. This script follows a yaml format so you have to very careful with the indentation.

Q101) What are ad-hoc commands ?

Answer: Ad-hoc commands in ansible is another way of executing commands on remote machines. They are your one time commands that will not be saved for future use. The other way that you can execute commands on remote machines is by writing a playbook.

Q102) What is an inventory file ?

Answer: Inventory file is the file that will be used by the playbooks to identify the IP addresses of the remote machines to execute the playbooks. This file is also known as the host file and will be available in `/etc/ansible/hosts` location. Whenever you want to execute to provide the IP addresses in the inventory file.

Q103) What is ansible tower ?

Answer: Ansible tower is the UI version of Ansible. Ansible tower provides an web user interface that you can use to execute the playbooks. Ansible tower makes it easier to use ansible for all the

IT needs.

Q104) What are roles in ansible ?

Answer: Roles are the advanced way to execute your playbooks on remote machines. Instead of writing one large playbook and making it very complicated, you can divide the playbook as per their section (Target, variables, tasks, handlers) by using roles and make the executing easier. By using roles, it becomes easier to manage very large playbooks. Roles will be present in

`~/.ansible/roles` location. You can use `ansible-galaxy` tool to create roles.

Q105) What is your understanding about Ansible ?

Answer: Ansible is a widely used IT configuration management tool . The best part of ansible is it is Open source so License is required and second one is it is Agent less , means we not need to Install any software on client machine to manage it .

Q106) What is Ansible Host and Node ?

Answer: Ansible has two part one is called Node machine and one is called Host Machine. The Node machine is here the ansible Server is installed and Host Machine is which is managed by Ansible Node.

Q107) How Ansible Communicate with its host Machine?

Answer: Ansible communicates with all its host machine using SSH key. We need to create an SSH Key using `ssh-keygen` command on Ansible Node machine and copy to all host machines.

Q108) What is Ansible Tower?

Answer: Ansible tower is commercial products from Redhat . It is used to simplify the job of ansible automation. We can also has lot of options like monitoring

Q109) What is Configuration Management (CM) Practices?

Answer: Configuration Management is the practice of managing the complete Infrastructure as a

code (IAC), it helps to automate the provisioning, deprovision, update, manage, deprovisioning of infrastructure which include OS, Application, update as an code. The organization is using Ansible , Terraform likes tool for their CM.

Q110) What are the basic terminologies used in Ansible.

Answer: The most basic terminology used in Ansible are

Controller Machine: It is the main controller machine, which manages all the host

Playbook: An YAML script, which contains the tasks

Task: Task is the single piece of work like install http

Inventory: The server can be gopura together know as inventory

Module: It is an executable set of tasks.

Role: An Ansible role is a pre-configured way forgetting organize the playbooks

Q111) Please define what is Ansible Galaxy?

Answer: Ansible Galaxy is the website , where we can share all the ansible roles

Q112) How can you install Ansible on Amazon EC2 instance?

Answer: Ansible can be installed on Amazon EC2 Instance using the Yum Install command.

Q113) How can you install Ansible on Amazon EC2 instance?

Answer: Ansible can be installed on Amazon EC2 Instance using sudo pip Install ansible command.

Q114) How can you take backup of configuration in Ansible?

Answer: Use copy module in Ansible we can backup the file to remote locations

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