

ITC Infotech Interview Question- Written Test (09-Sep-2017) – Gangadhar Reddy

Jenkins

1)What is the difference between Continuous Delivery and Continuous Deployment in Jenkins?

Ans)

Continuous Integration is a development practice where developers integrate their code into a shared remote repository frequently, preferably several times a day. Each integration is verified by an automated build (including test) to detect integration errors as quickly as possible.

One of the key benefits of this approach is to significantly reduced integration problems and allows a developer team to develop cohesive software more rapidly.

Continuous Delivery (CD) is a practice of automating the entire software release process. The idea is to do CI, *plus* automatically prepare and track a release to production. The desired outcome is that anyone with sufficient privileges to deploy a new release can do so at any time in one or a few clicks. By eliminating nearly all manual tasks, developers become more productive.

The continuous delivery process typically includes at least one manual step of approving and initiating a deploy to production. In complex systems with multiple dependencies, the continuous delivery pipeline may include additional steps, which are either manual or automatic.

Continuous Delivery doesn't mean every change is deployed to production ASAP. It means every change is proven to be deployable at any time

Continuous Deployment: The practicing of automatically deploying every successful build directly into production without any manual steps known as Continuous deployment.

How can you use Jenkins CLI?

Ans) Jenkins has a built-in command line interface (CLI) that allows users and administrators to access Jenkins from a script or shell environment. This can be convenient for scripting of routine tasks, bulk updates, troubleshooting, and more.

Advantages of Jenkins CLI:

- Easier
- Faster
- Memory management
- Automation tasks.

Which plugin is used for code coverage in Jenkins?

Ans) JaCoCo plugin

Python

1) What is the largest value in Integer type in Python 2.7?

Ans)

```
sys.maxsize  
9223372036854775807  
type(sys.maxsize)  
<type 'int'>
```

```
type(sys.maxsize+1)
<type 'long'>

[>>> sys.maxsize
9223372036854775807
[>>> type(sys.maxsize)
<type 'int'>
[>>> type(sys.maxsize+1)
<type 'long'>
>>> ]
```

Explanation

For integers we have
maxint and maxsize:

The maximum value of an int can be found in Python 2.x with sys.maxint. It was removed in Python 3, but sys.maxsize can often be used instead.

Python 3 does not have upper or lower limits on integers.

Float max value

```
>>> sys.float_info
sys.float_info(max=1.7976931348623157e+308,
min=2.2250738585072014e-308, min_exp=-1021, max_exp=1024, max_10_exp=308,
epsilon=2.220446049250313e-16, radix=2, rounds=1)
>>>
```

Specifically, sys.float_info.max

```
>>> sys.float_info.max
>>> sys.float_info.max
1.7976931348623157e+308
>>>
```

```
>>> sys.float_info
sys.float_info(max=1.7976931348623157e+308, max_exp=1024, max_10_exp=308, min=2.2250738585072014e-308, min_exp=-1021, min_10_exp=-307, dig=15, mant_dig=53,
ant_dig=53, epsilon=2.220446049250313e-16, radix=2, rounds=1)
>>> sys.float_info.max
1.7976931348623157e+308
>>> sys.float_info.min
2.2250738585072014e-308
>>> ]
```

2) How documenting a function in python 2.7?

Ans) The pydoc module automatically generates documentation from Python modules. The documentation can be presented as pages of text on the console, served to a Web browser, or saved to HTML files.

For modules, classes, functions and methods, the displayed documentation is derived from the docstring (i.e. the `__doc__` attribute) of the object, and recursively of its documentable members. If there is no docstring, pydoc tries to obtain a description from the block of comment lines just above the definition of the class, function or method in the source file, or at the top of the module (see `inspect.getcomments()`).

3) Lambda

4) Regular Expression

5) Find the output of the below program.

x,y=1,1

```
def f();  
global x;  
y=0;  
for l in (10,20,30);  
x+=1;  
y+=l;  
f();  
print x,y;
```

Output:

Linux and Cloud

Infosys Interview Questions- F2F (14-Sep-2017) – Gangadhar Reddy Batch 1

- 1) As a DevOps Engineer, what are your day2day activities?
- 2) Explain how can you installed plugins and customized plugins?
- 3) Explain DevOps workflow?
- 4) What is Distributed Version Control System?
- 5) How can you do Security Management in Jenkins?
- 6) Is Jenkins a standalone or master-slave?
- 7) Are you created any pipeline jobs?
- 8) How can you install customized plugins?
- 9) Explain any branching strategies you've followed in GitHub?
- 10) How can you work on UCD like configurations and all?
- 11) Explain your roles and responsibilities in Tomcat?

Ans) Tomcat 7 onwards, the roles required to use the manager application were changed from the single manager role to the following four roles. You will need to assign the role(s) required for the functionality you wish to access.

manager-gui - allows access to the HTML GUI and the status pages

manager-script - allows access to the text interface and the status pages

manager-jmx - allows access to the JMX proxy and the status pages

manager-status - allows access to the status pages only

If you provide add below line in tomcat-users.xml, we will get the access for below apps(Buttons)
<user username="admin" password="passw0rd" roles="**manager-gui**">

Server Status

<http://localhost:8083/manager/status>

Manager App

<http://localhost:8083/manager/html>

If you provide add below line in tomcat-users.xml, we will get the access for below apps(Buttons)
<user username="admin" password="passw0rd" roles="**admin-gui**">

Host Manager

<http://localhost:8083/host-manager/html>

- 12) Explain how can you deploy an application into Bluemix?
- 13) How can you debug logs in case of build failure?
- 14) What is the difference between Regions and Availability zones?
- 15) Is it mandatory to use GitHub? Why can I use Git instead of other VCS?
- 16) Is can you use any special mechanisms for Testing?
- 17) How can you write and use JUnit test cases?
- 18) Can you perform any pre-build actions?
- 19) How can you change Jenkins port number?
- 20) What is the difference between Git Pull and Git Push?
- 21) Write Shell Script for below scenario?

One directory having a file. Check the status of the file, if it is available then moves it to target directory and print as "File Moved". If it is not available then create new file?

- 22) I have script file called Helloworld.sh and I can execute like

#bash Helloworld.sh

Helloworld.sh

Which one is correct?

Ans) Both are correct.

```
[[bhaskar@devpcpdgdst02 shellscript]$ ./Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ sh Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ . Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ bash Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ tcsh Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ dash Helloworld.sh
Hello, welcome to ShellScripting...
[[bhaskar@devpcpdgdst02 shellscript]$ ksh Helloworld.sh
Hello, welcome to ShellScripting...
```

Use the below command to check how many types of shell will support that server.

#cat /etc/shells

```
[bhaskar@devpcpdgst02 shellscript]$ cat /etc/shells
/bin/sh
/bin/bash
/sbin/nologin
/bin/tcsh
/bin/csh
/bin/dash
/bin/ksh
[bhaskar@devpcpdgst02 shellscript]$ ]
```

23) Interviewer gives scenario like

I used Git on my Laptop. Suddenly it got crashed then I want to recover my data back. How can you do backup?

24) Interviewer gives scenario like

I have installed Jenkins master in Unix environment and Jenkins slaves on different environments like some slaves in windows and some slaves in Linux. How can you connect from Jenkins master to slaves?

ITC Infotech Interview Question- Telephonic (18-Sep-2017) – Gangadhar Reddy Batch 1

1) Tell me about yourself?

2) Have you created the Master and Slave configuration in Jenkins?

3) What is the difference between ANT and Maven?

Ans) Ant and Maven both are build tools provided by Apache. The main purpose of these technologies is to ease the build process of a project.

There are many differences between ant and maven that are given below:

Ant	Maven
Ant doesn't has formal conventions , so we need to provide information of the project structure in build.xml file.	Maven has a convention to place source code, compiled code etc. So we don't need to provide information about the project structure in pom.xml file.
Ant is procedural , you need to provide information about what to do and when to do through code. You need to provide order.	Maven is declarative , everything you define in the pom.xml file.
There is no life cycle in Ant.	There is life cycle in Maven.
It is a tool box.	It is a framework .
It is mainly a build tool .	It is mainly a project management tool .

The ant scripts are not reusable .	The maven plugins are reusable .
It is less preferred than Maven.	It is more preferred than Ant.

- 4) I see you have configured Jenkins with Artifactory repository. How are you making configurations in maven folder?
- 5) Have you worked on Python?
- 6) In Chef how to know the status of slaves from Master?
- 7) Have you worked on Ubuntu?
- 8) In Ubuntu server I have fired a command “cat /etc/lsb-release”, what it will gives me?

Ans) Below is the output for cat /etc/lsb-release

No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 15.10
Release: 15.10
Codename: wily

LSB: Linux Standard Base tools

- 9) The command uname –a what it will gives me?
Ans) uname command will print the system information like kernel, hardware, operation system info...etc
Linux ubuntu 4.2.0-19-generic #23-Ubuntu SMP Wed Nov 11 11:39:30 UTC 2015 x86_64 x86_64 GNU/Linux
- 10) You have used IBM cloud, is it public cloud or Private cloud?
Ans) I said it's a Public cloud.
- 11) Next question is how do you know it is public cloud? (How do you define weather it is public cloud or private cloud?)
Ans)
- 12) What is the difference between public cloud and private cloud?
Ans)
- 13) I got a chef server with 100 nodes, I want to know how many chef nodes are accessing by chef server?

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SkyHigh Networks Interview Question Telephonic(20-Sep-2017) – Gangadhar Reddy Batch 1

Job Description

Mandatory skills:

Any one deployment automation tools such as Jenkins, Glu, Salt, Puppet, Chef, Ansible
Experience with any open source technologies (Kafka, Memcached, Redis, Hadoop, HBase, Zookeeper, Oozie)
Extensive scripting experience in any - Shell, Python or Ruby
Experience in AWS platform in linux environment.
Experience with SQL

Linux

1) Let say that I have one shell script, I wanted to be executed whenever the system boot time, it should not be executing at any other time, it exacted only boot time. In this scenario what will do?

Ans)

2) What is the difference between bash_profile and bashrc file in user home directory?

Ans)

http://www.joshstaiger.org/archives/2005/07/bash_profile_vs.html

3) What is Login Shell and Non Login shell

4) Can you explain me the contents in /etc/shadow file?

- The /etc/shadow file stores user account information. Like username, password, last password changes etc.
- Password is stored in encrypted format.
- All fields are separated by a colon (:) symbol.

#cat /etc/shadow

```
root@e763009607d9:/# cat /etc/shadow
root:$6$tnhB/Tvd$fMlnDf3TzX8zQ0NpgCXPLYtw2TxaXTN0k.BBiKuh1rWf10ZemgTW3glRGDrbcNC9RSCKsijRUUHhQH5jm1iu.:17434:0:99999:7:::
daemon:*:17357:0:99999:7:::
bin:*:17357:0:99999:7:::
sys:*:17357:0:99999:7:::
sync:*:17357:0:99999:7:::
games:*:17357:0:99999:7:::
man:*:17357:0:99999:7:::
lp:*:17357:0:99999:7:::
mail:*:17357:0:99999:7:::
news:*:17357:0:99999:7:::
uucp:*:17357:0:99999:7:::
proxy:**:17357:0:99999:7:::
www-data:**:17357:0:99999:7:::
backup:**:17357:0:99999:7:::
listi:**:17357:0:99999:7:::
irc:**:17357:0:99999:7:::
gnats:**:17357:0:99999:7:::
nobody:**:17357:0:99999:7:::
systemd-timesync:**:17357:0:99999:7:::
systemd-network:**:17357:0:99999:7:::
systemd-resolve:**:17357:0:99999:7:::
systemd-bus-proxy:**:17357:0:99999:7:::
apt:**:17357:0:99999:7:::
devops:S6$V.WfL9xy$P1W1lkWhn5HNReFyCALQxT20IxUullD/Fubq3mWQGtowSCF2A.WogFF6xu/niCtG1tHE3u/aYJsF4Hej.8tno:17434:2:99:7:::
root@e763009607d9:/#
```

5) How is your knowledge on Linux File System?

Ans)

6) Have you worked on /srv directory?

Ans)

7) What is the difference between /bin and /sbin directory?

Ans)

8) What configuration we have to set to do for normal user and root user differentiation?

9) There is some settings which makes doesn't show some advanced commands to normal user? What are those settings?

Ans)

/etc/profile we have do some settings.

10) What is PATH and what does it do?

Ans)

We have 4k 8gb ram server?

Which lang u prefer?

Ans) bash

Difference between \$* and \$@

Ans) The collection of arguments in \$* is treated as one text string, whereas the collection of arguments in \$@ is treated as separate strings.

In linux, I have lot of .txt files, I want to rename the .txt to .html?

Ex: Bangalore.txt ---> Bangalore.html

India.txt ---> India.html

Harman Connected Services Interview Questions- F2F(23-Sep-2017) – Gangadhar Reddy Batch 1

1st Round Test:

- 1) What is the first line in Shell Scripting? Explain in detail?
- 2) What is the first line in Perl Scripting? Explain in detail?
- 3) Write a Shell/Perl/Python script to print “CONNECT” string in reverse by using loop or array?
- 4) Write to make a file or Ant script or Maven Script to execute only two files?
- 5) What is Merge Conflict? How to resolve it?

2nd Round Technical Discussion:

- 1) Roles and Responsibilities?
- 2) Which strategy you have followed in Git?
- 3) Explain DevOps Workflow?
- 4) What is Git fetch and Git pull? Explain in detail?
- 5) How can you add new module to your project? Explain step by step?
- 6) In which situation you have configured Hooks & Services? What is the purpose of it?
- 7) What is Git remote?

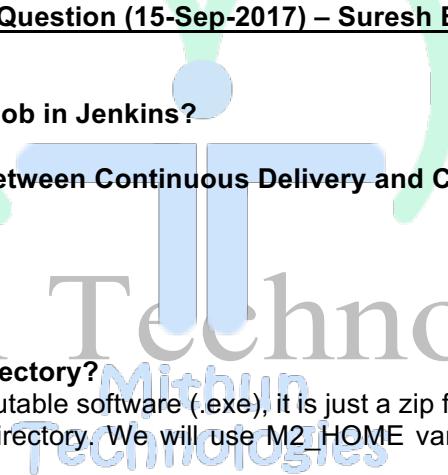
- 8) **What is manifest file?**
 - 9) **Tell me the command to create public branch and private branch in Git?**
 - 10) **What is git merge?**
 - 11) **What is git rebase? What is the golden rule of rebase?**
 - 12) **What is difference between Release Engineer and DevOps Engineer?**
 - 13) **Write a script to deploy war file into application sever?**
 - 14) **First connect to Linux server and assume there is one source directory having a file and one destination directory. I want to copy the file from source to destination before deploying war files to Tomcat server? Write a script for entire scenario?**
 - 15) **I want to trigger a job for every 2 hours. How you can configure your job?**
 - 16) **Explain about Cron Job?**
 - 17) **What is difference between build and nightly builds?**
 - 18) **How can you create and configure job?**
 - 19) **Why you can choose free-style job. Why can't you go for another one?**
 - 20) **Why you select 'invoke ant' or 'top level maven targets'? What is the difference between Ant and Maven?**
-

Interview Question (15-Sep-2017) – Suresh Batch 1

Jenkins

- 1) **How you will create the job in Jenkins?**
Ans)
- 2) **What is the difference between Continuous Delivery and Continuous Deployment?**
Ans)

Maven



Mithun Technologies

- 1) **What is maven home directory?**
Ans) Maven is not a executable software (.exe), it is just a zip file, extract it into one directory. That is called as home directory. We will use M2_HOME variable for setting maven home directory.
- 2) **What are folders available in Maven home directory?**
Ans) Below directories are available in maven home directory.
 - a) bin :
 - b) boot :
 - c) conf :
 - d) lib :
- 3) **In which directory setting.xml available?**
Ans) M2_HOME/conf
- 4) **What is the use of settings.xml?**
Ans)
- 5) **Explain about settings.xml?**
Ans)
- 6) **What is profile?**
Ans)
- 7) **How to skip the test cases?**
Ans) You can skip the tests via command line by executing the following command:

```
mvn install -DskipTests  
(OR)  
mvn install -Dmaven.test.skip=true
```

8) What you have written in pom.xml?

Ans)

GitHub

1) Which strategy you are used in git?

Ans)

MERGE STRATEGIES

The merge mechanism (`git merge` and `git pull` commands) allows the backend 'merge strategies' to be chosen with `-s` option. Some strategies can also take their own options, which can be passed by giving `-X<option>` arguments to `git merge` and/or `git pull`.

resolve

This can only resolve two heads (i.e. the current branch and another branch you pulled from) using a 3-way merge algorithm. It tries to carefully detect criss-cross merge ambiguities and is considered generally safe and fast.

recursive

This can only resolve two heads using a 3-way merge algorithm. When there is more than one common ancestor that can be used for 3-way merge, it creates a merged tree of the common ancestors and uses that as the reference tree for the 3-way merge. This has been reported to result in fewer merge conflicts without causing mismerges by tests done on actual merge commits taken from Linux 2.6 kernel development history. Additionally this can detect and handle merges involving renames. This is the default merge strategy when pulling or merging one branch.

The 'recursive' strategy can take the following options:

ours

This option forces conflicting hunks to be auto-resolved cleanly by favoring 'our' version. Changes from the other tree that do not conflict with our side are reflected to the merge result. For a binary file, the entire contents are taken from our side.

This should not be confused with the 'ours' merge strategy, which does not even look at what the other tree contains at all. It discards everything the other tree did, declaring 'our' history contains all that happened in it.

theirs

This is the opposite of 'ours'.

patience

With this option, 'merge-recursive' spends a little extra time to avoid mismerges that sometimes occur due to unimportant matching lines (e.g., braces from distinct functions). Use this when the branches to be merged have diverged wildly. See also [git-diff\[1\]](#) `--patience`.

diff-algorithm=[patience|minimal|histogram|myers]

Tells 'merge-recursive' to use a different diff algorithm, which can help avoid mismerges that occur due to unimportant matching lines (such as braces from distinct functions). See also [git-diff\[1\]](#) `--diff-algorithm`.

ignore-space-change

ignore-all-space

ignore-space-at-eol

Treats lines with the indicated type of whitespace change as unchanged for the sake of a three-way merge. Whitespace changes mixed with other changes to a line are not ignored. See also [git-diff\[1\]](#) `-b`, `-w`, and `--ignore-space-at-eol`.

- If 'their' version only introduces whitespace changes to a line, 'our' version is used;
- If 'our' version introduces whitespace changes but 'their' version includes a substantial change, 'their' version is used;
- Otherwise, the merge proceeds in the usual way.



This runs a virtual check-out and check-in of all three stages of a file when resolving a three-way merge. This option is meant to be used when merging branches with different clean filters or end-of-line normalization rules. See "Merging branches with differing checkin/checkout attributes" in [gitattributes\[5\]](#) for details.

no-renormalize

Disables the `renormalize` option. This overrides the `merge.renormalize` configuration variable.

no-renames

Turn off rename detection. See also [git-diff\[1\]](#) `--no-renames`.

find-renames[=<n>]

Turn on rename detection, optionally setting the similarity threshold. This is the default. See also [git-diff\[1\]](#) `--find-renames`.

rename-threshold=<n>

Deprecated synonym for `find-renames=<n>`.

subtree[=<path>]

This option is a more advanced form of 'subtree' strategy, where the strategy makes a guess on how two trees must be shifted to match with each other when merging. Instead, the specified path is prefixed (or stripped from the beginning) to make the shape of two trees to match.

octopus

This resolves cases with more than two heads, but refuses to do a complex merge that needs manual resolution. It is primarily meant to be used for bundling topic branch heads together. This is the default merge strategy when pulling or merging more than one branch.

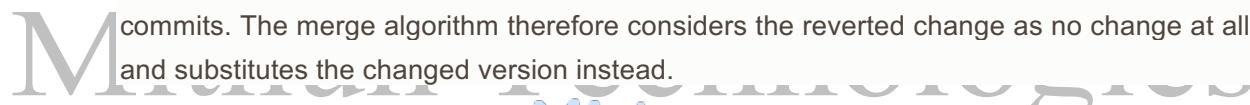
ours

This resolves any number of heads, but the resulting tree of the merge is always that of the current branch head, effectively ignoring all changes from all other branches. It is meant to be used to supersede old development history of side branches. Note that this is different from the -Xours option to the 'recursive' merge strategy.

subtree

This is a modified recursive strategy. When merging trees A and B, if B corresponds to a subtree of A, B is first adjusted to match the tree structure of A, instead of reading the trees at the same level. This adjustment is also done to the common ancestor tree.

With the strategies that use 3-way merge (including the default, 'recursive'), if a change is made on both branches, but later reverted on one of the branches, that change will be present in the merged result; some people find this behavior confusing. It occurs because only the heads and the merge base are considered when performing a merge, not the individual commits. The merge algorithm therefore considers the reverted change as no change at all, and substitutes the changed version instead.



Source :

<https://git-scm.com/docs/merge-strategies>

<https://git-scm.com/docs/git-merge>

2) How you will do Unit Testing?

Ans) Developers will write the Junit test cases, will configure in build script, for every build Junit test cases will execute.

3) How you will do Integration Testing?

Ans) Automation Test engineer will write the selenium test cases to do integration test.

4) How you will run Selenium Test cases?

Ans)

Linux

1) How to check one software where is installed in Linux machine? Suppose take Jenkins.

Ans) Using whereis command.

```
[bhaskar@bhaskar-OptiPlex-5090 ~]$ whereis jenkins
jenkins: /etc/jenkins /usr/lib/jenkins
```

How to set the path which is accessible by the all the users?

Ans) With below command

#vim **~/.bash_profile** we can set the environment variables in user level
With #vim **/etc/bashrc** , we can set the environment variables in system level.

Tomcat

- 1) How you will deploy to apache tomcat?
Ans)
- 2) In tomcat what is server.xml?
Ans)
- 3) How to set memory limits?
Ans)
- 4) How to set database details in server.xml?
Ans)

Configuration Management tool

- 1) How to deploy app into App server?

Interview Question- Written Test (23-Sep-2017) – Ashok Reddy Batch 1

- 1)what is devops ?
- 2)what is docker ?
- 3)how to create docker file ?
what is dockerfile used for ?
- 4)why are using devops?
- 5)explain about docker structure?
- 6)what is cloud technology?why are use cloud ?
- 7)explain about ibm cloud?
- 8)what is difference between docker and virutal machines ?
- 9)explain about permissions in linux ?permission componets?
- 10)what is kubernets?
- 11)tell me some networking commands?
- 12)explain below commands?
run, cmd,
- 13?how to replace with rohit to ashok using linux command?
- 14)how you have used Docker in your past position?
- 15)I lose my data when the Docker container exits?
- 16)which format jenkins data saved?
- 17)how many ways to use docker?
- 18)how to setup passwordless ssh between two instances?
- 19)What is the use of master and slave in Jenkins?
- 20)explain about cloud infrastucture?

Sapient GM Interview Questions- Skype Round (13-Oct-2017) – Nagarjuna Reddy

Linux

What is nice command?

Ans)

With the help of Nice command in Linux you can set process priority. If you give a process a higher priority, then Kernel will allocate more cpu time to that process.

By default when a programme is launched in Linux, it gets launched with the priority of '0'. However you can change the priority of your programmes by either of the following methods.

- 1) You can launch a programme with your required priority.
- 2) Or you can also change the priority of an already running process.

With help of below command we can see all the process priority.

ps -eal

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
4	S	0	1	0	0	80	0	-	4838	poll_s	?	00:03:25	init
1	S	0	2	0	0	80	0	-	0	kthrea	?	00:00:00	kthreadd
1	S	0	3	2	0	-40	-	-	0	migrat	?	00:00:12	migration/0
1	S	0	4	2	0	80	0	-	0	ksofti	?	00:00:05	ksoftirqd/0
1	S	0	5	2	0	-40	-	-	0	cpu_st	?	00:00:00	stopper/0
5	S	0	6	2	0	-40	-	-	0	watchd	?	00:00:01	watchdog/0
1	S	0	7	2	0	-40	-	-	0	migrat	?	00:00:12	migration/1
1	S	0	8	2	0	-40	-	-	0	cpu_st	?	00:00:00	stopper/1
1	S	0	9	2	0	80	0	-	0	ksofti	?	00:00:05	ksoftirqd/1
5	S	0	10	2	0	-40	-	-	0	watchd	?	00:00:01	watchdog/1
1	S	0	11	2	0	-40	-	-	0	migrat	?	00:00:12	migration/2
1	S	0	12	2	0	-40	-	-	0	cpu_st	?	00:00:00	stopper/2
1	S	0	13	2	0	80	0	-	0	ksofti	?	00:00:05	ksoftirqd/2
5	S	0	14	2	0	-40	-	-	0	watchd	?	00:00:01	watchdog/2
1	S	0	15	2	0	-40	-	-	0	migrat	?	00:00:13	migration/3
1	S	0	16	2	0	-40	-	-	0	cpu_st	?	00:00:00	stopper/3
1	S	0	17	2	0	80	0	-	0	ksofti	?	00:00:04	ksoftirqd/3
5	S	0	18	2	0	-40	-	-	0	watchd	?	00:00:01	watchdog/3
1	S	0	19	2	0	80	0	-	0	worker	?	00:01:05	events/0
1	S	0	20	2	0	80	0	-	0	worker	?	00:01:05	events/1

1 S 0 751	2 0 80	0 - 0 kaudit ?	00:00:00 kauditd
4 S 0 754	1 2 80	0 - 250257 futex_ ?	10:05:36 newrelic-infra
0 S 0 769	1 0 80	0 - 1015 pipe_w ?	00:00:45 logger
5 S 0 1014	1 0 76	-4 - 6899 ep_pol ?	00:00:01 auditd
5 S 0 1038	1 0 80	0 - 1540 poll_s ?	00:00:00 portreserve
5 S 0 1048	1 0 80	0 - 62273 poll_s ?	00:02:14 rsyslogd
5 S 0 1071	1 0 80	0 - 4561 hrtime ?	00:01:26 irqbalance
0 S 0 1090	1 0 80	0 - 3025 wait ?	00:00:57 xe-daemon
5 S 81 1178	1 0 80	0 - 5395 poll_s ?	00:00:00 dbus-daemon
0 S 0 1257	1 0 80	0 - 10240 poll_s ?	00:00:19 tlmagent.bin
4 S 0 1284	1 0 80	0 - 47271 ep_pol ?	00:00:00 cupsd
5 S 68 1330	1 0 80	0 - 9428 poll_s ?	00:00:00 haldd
0 S 0 1331	1330 0 80	0 - 5100 poll_s ?	00:00:00 haldd-runner
1 S 0 1617	1 0 80	0 - 27081 wait ?	00:00:00 jacclient
0 S 0 1645	1617 0 95	15 - 252014 futex_ ?	00:09:05 java
5 S 0 1752	1 0 80	0 - 16563 poll_s ?	00:00:00 sshd
4 S 0 1785	1 0 80	0 - 27080 wait ?	00:00:00 mysqld_safe
0 S 0 1917	1090 0 80	0 - 1018 hrtime ?	00:00:00 sleep
4 S 27 1985	1785 0 80	0 - 288905 poll_s ?	00:17:41 mysqld
0 R 504 2078	31694 0 80	0 - 27030 - pts/0	00:00:00 ps
4 S 0 2119	1 0 80	0 - 20238 ep_pol ?	00:00:06 master
4 S 89 2130	2119 0 80	0 - 20301 ep_pol ?	00:00:01 qmgr

The column that starts with "NI" shows the nice value(priority of the process). You can clearly see that most of them has got a '0' priority.

With help of **top** command also we can see nice value for all process as follows.

```
Tasks: 165 total, 1 running, 164 sleeping, 0 stopped, 0 zombie
Cpu(s): 1.7%us, 1.8%sy, 0.0%ni, 96.5%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 16269236k total, 5931868k used, 10337368k free, 675424k buffers
Swap: 2096444k total, 0k used, 2096444k free, 3561608k cached
```

PID	USER	PR	NI	VIRT	RES	SHR	S %CPU	%MEM	TIME+	COMMAND
754	root	20	0	977m	18m	6044 S	3.7	0.1	605:42.20	newrelic-infra
1645	root	35	15	984m	23m	2996 S	0.3	0.1	9:05.94	java
1985	mysql	20	0	1128m	445m	6256 S	0.3	2.8	17:41.27	mysqld
2180	mongod	20	0	455m	29m	4448 S	0.3	0.2	74:51.64	mongod
2926	bhaskar	20	0	15032	1344	984 R	0.3	0.0	0:00.10	top
3256	db2inst1	20	0	1390m	79m	63m S	0.3	0.5	11:10.51	db2sysc
26989	db2inst2	20	0	4739m	1.6g	1.5g S	0.3	10.1	60:59.04	db2sysc
1	root	20	0	19352	1576	1248 S	0.0	0.0	3:25.40	init
2	root	20	0	0	0	0 S	0.0	0.0	0:00.00	kthreadd
3	root	RT	0	0	0	0 S	0.0	0.0	0:12.34	migration/0
4	root	20	0	0	0	0 S	0.0	0.0	0:05.20	ksoftirqd/0
5	root	RT	0	0	0	0 S	0.0	0.0	0:00.00	stopper/0
6	root	RT	0	0	0	0 S	0.0	0.0	0:01.86	watchdog/0
7	root	RT	0	0	0	0 S	0.0	0.0	0:12.81	migration/1
8	root	RT	0	0	0	0 S	0.0	0.0	0:00.00	stopper/1
9	root	20	0	0	0	0 S	0.0	0.0	0:05.00	ksoftirqd/1
10	root	RT	0	0	0	0 S	0.0	0.0	0:01.74	watchdog/1

Niceness values range from -20 (most favourable to the process) to 19 (least favourable to the process).

A process with a lower niceness value is given higher priority and more CPU time. A process with a higher niceness value (a "nicer" process) is given a lower priority and less CPU time, freeing up resources for processes that are more demanding.

nice command without options will display the default niceness level of new processes.
This is commonly zero, so the output would probably look like this:

```
[bhaskar@... ~]$ nice  
0
```

Instead of launching the script with the default priority, you can use nice command to launch the process with a specific priority.

In this example, date.sh is launched with a nice value of 12.

nice -12 sh date.sh

nice --12 sh date.sh

https://www.thegeekstuff.com/2013/08/nice-renice-command-examples/?utm_source=tuicool

What is sed command?

Ans)

What is the difference between su root and su -root commands?

Ans)

If you type only **su** without a dash(-) in that case the session is switched to root without applying any of the environment variable of the root user.

If you **su -**, switching user to the root user and asking the system to change all the environment variables applicable to root and take me to the root's home directory

Using **su -** is same as logging into a fresh session on a terminal.

```
[bhaskarreddyl@localhost ~]$ echo $PATH  
/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/bhaskarreddyl/  
local/bin:/home/bhaskarreddyl/bin  
[bhaskarreddyl@localhost ~]$ su  
Password:  
[root@localhost bhaskarreddyl]# echo $PATH  
/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/bhaskarreddyl/  
local/bin:/home/bhaskarreddyl/bin  
[root@localhost bhaskarreddyl]# su bhaskarreddyl  
[bhaskarreddyl@localhost ~]$ su -  
Password:  
Last login: Thu Jan 18 16:29:30 IST 2018 on pts/0  
[root@localhost ~]# echo $PATH  
/usr/local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin:/root/bin  
[root@localhost ~]#
```

Git

How to check the particular branch from github?

Ans) git clone -b development git@github.com:devopstrainingblr/Maven-Web-Project.git

(OR)

git clone -b development --single-branch [git@github.com: devopstrainingblr/Maven-Web-Project.git](https://github.com/devopstrainingblr/Maven-Web-Project.git)

Maven

What is the difference between Snapshot and real image?

Ans)

In terms of version, when maven has downloaded a dependency project version 1.0, it will not download again the latest version of 1.0 while building the project. To facilitate the latest version the dependent project need to do upgrades it's version to 1.1.

In case of SNAPSHOT, Maven will automatically download the latest SNAPSHOT (:1.0-SNAPSHOT) of the dependency project everytime the project is built.

A snapshot version in Maven is one that has not been released.

What is profile?

Ans)

How to run the particular profile?

Ans) Using -P option we can run the particular profile as follows.

mvn clean install -P production ,Here production is one profile.
=====

Coviam Interview Questions- Skype Round -1 (16-Oct-2017) – Ashok Reddy

Opening www.wikipedia.com in browser. What will happen in background?

Ans)

Follow below url for more information.

<http://igoro.com/archive/what-really-happens-when-you-navigate-to-a-url/>

What is the difference between Application server and Web server?
Ans)

Linux

How to create the user?

Ans) useradd <<User Name>>
useradd mithun

Here mithun is the username.

How to create the group?

Ans) groupadd <<Group Name>>
groupadd devopsteam

How to add user to group?

Ans) usermod -g <<Group Name>> <<User Name>>

How to check CPU utilization?

Ans) We can check the cpu utilization using **top** command or **mpstat** command.

What is load average?

Ans)

What is the difference between load average and cpu load?

Ans)

Shell Script

Take x as input print FIZZ number is divisible by 3, print BUZZ if the number is divisible by 5, print FIZZBUZZ if it is divisible by both else print the number.

Ans)

```
#!/bin/bash
echo Enter one number
read x;
if [[ 0 -eq "($x%3) + ($x%5)" ]]
then
    echo "FIZZBUZZ"
elif [[ 0 -eq "($x%5)" ]]
then
    echo "BUZZ"
elif [[ 0 -eq "($x%3)" ]]
then
    echo "FIZZ"
else
    echo "$x"
fi
```

Output:

Enter one number
15
fizz buzz

Cloud Tools

What is NewRelic?

What is Bluemix?

What is the difference between Virtual Box and Docker?

Coviam Interview Questions- Skype Round -2 (16-Oct-2017) – Ashok Reddy

Linux

What is load average?

Ans)

Below commands will give the load average values.

#cat /proc/loadavg

#w

#uptime

#top

load average 3.00 in prod server, but things are running fine? What is this?

Ans) On multi-processor system, the load is relative to the number of processor cores available. The "100% utilization" mark is 1.00 on a single-core system, 2.00, on a dual-core, 4.00 on a quad-core, etc.

A load of 1.00 is 100% CPU utilization on single-core box. On a dual-core box, a load of 2.00 is 100% CPU utilization.

What is Inode?

Ans) Inode is a data structure that contains information of a file.

The inode contains a list of all the blocks in which a file is stored, the owner information for that file, permissions, and all other attributes that are set for the file. In a sense, you could say that a file really *is* the inode, and names are attached to these inodes to make it easier for humans to work with them.

To find inode number of any file or directory use -i option along with ls command.

ls -li devops.txt : It will display the inode number of devops.txt file.

```
[devops@mithuntechnologies tmp]$ ls -li devops.txt
4203075 -rwxrwxrwt. 1 devops devops 0 Dec 18 15:55 devops.txt
[devops@mithuntechnologies tmp]$
```

Sticky bit?

Ans) A Sticky bit is a permission bit that is set on a file or a directory that lets only the owner of the file/directory or the root user to delete or rename the file. No other user is given privileges to delete the file created by some other user.

To set the sticky bit for file or directory will follow like below.

chmod +o file/directory

example:

```
chmod o+devops.txt  
chmod 1777 devops.txt
```

```
[devops@mithuntechnologies tmp]$ ls -l  
total 0  
-rw-r--r--. 1 devops devops 0 Dec 18 15:55 devops.txt  
[devops@mithuntechnologies tmp]$ chmod o+t devops.txt  
[devops@mithuntechnologies tmp]$ ls -l  
total 0  
-rw-r--r-T. 1 devops devops 0 Dec 18 15:55 devops.txt  
[devops@mithuntechnologies tmp]$ chmod 1777 devops.txt  
[devops@mithuntechnologies tmp]$ ls -l  
total 0  
-rwxrwxrwt. 1 devops devops 0 Dec 18 15:55 devops.txt  
[devops@mithuntechnologies tmp]$ █
```

S

After setting Sticky Bit to a file/folder, if you see "T" in the file permission area that indicates the file/folder does not have executable permissions for others on that particular file/folder.

Technologies

How to check process is in waiting state or not?

Ans) In Linux a process can be in any of the below states.

- R running or runnable (on run queue)
- D uninterruptible sleep (usually IO)
- S interruptible sleep (waiting for an event to complete)
- Z defunct/zombie, terminated but not reaped by its parent
- T stopped, either by a job control signal or because it is being traced
- W paging (not valid since the 2.6.xx kernel)
- X dead (should never be seen)

A process starts its life in an R "running" state and finishes after its parent reaps it from the Z "zombie" state.

With help of **top** or **ps** command we can find the process is in which state.

```
[devops@mithuntechnologies tmp]$ top
top - 16:46:04 up 6 days, 23:15, 2 users, load average: 0.00, 0.02, 0.05
Tasks: 199 total, 2 running, 197 sleeping, 0 stopped, 0 zombie
%Cpu(s): 18.2 us, 13.6 sy, 0.0 ni, 68.2 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1016232 total, 79852 free, 561716 used, 374664 buff/cache
KiB Swap: 839676 total, 476488 free, 363188 used. 237392 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1718	bhaskar+	20	0	1980424	229748	15884	S	8.0	22.6	17:25.78	gnome-shell
1	root	20	0	193700	4340	2484	S	0.0	0.4	0:46.55	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.30	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:06.02	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:11.10	rcu_sched

```
[devops@mithuntechnologies tmp]$ ps -o state,pid,command
```

```
S PID COMMAND
```

```
S 7211 bash
S 7463 bash
S 7806 bash
S 8037 bash
S 8213 bash
R 9202 ps -o state,pid,command
S 31903 bash
```

```
[devops@mithuntechnologies tmp]$ █
```

What is process?

Ans) A process is an executing (i.e., running) instance of a program. Processes are also frequently referred to as tasks. OR A process is the execution context of a running program.

<http://www.differencebetween.info/difference-between-process-and-thread>

What is thread?

Ans) Threads are "light weight processes" (LWPs).

What is the difference between process and thread?

Ans) Thread and Process are two closely related terms in multi-threading. The main difference between the two terms is that the threads are a part of a process, i.e. a process may contain one or more threads, but a thread cannot contain a process.

Ansible

What is jinja template?

Ans)

Tomcat Server

I have deleted the log file unexpectedly, without restarting the apache server how to get it back?

Ans)

Follow the below url

<https://rbgeek.wordpress.com/2012/08/24/how-to-recover-deleted-apache-log/>

Interview Questions- Telephonic Round (18-Oct-2017) – Nagarjuna Reddy - Praveen

About crontab.

How to see is cronjob is running or not?

What is CI and Continuous Deployment?

Accenture Interview Questions- Telephonic Round (20-Oct-2017) – Suresh

Linux

How to find the empty directories in the current directory and need to delete?

Ans) find . -type d -empty -delete

How to find the empty files in current directory?

Ans) find . -type f -empty

How to find the empty lines in particular file and need to remove?

Ans)

```
[mithuntechno@localhost ~]$ cat mithun_technologies.txt
```

Hi Guys,

My Name is Mithun Reddy L, working in IBM Bangalore.

I would like to work on DevOps

```
[mithuntechno@localhost ~]$ sed '/^s*$/d' mithun_technologies.txt
```

Hi Guys,

My Name is Mithun Reddy L, working in IBM Bangalore.

I would like to work on DevOps

```
[mithuntechno@localhost ~]$ cat mithun_technologies.txt
```

Hi Guys,

My Name is Mithun Reddy L, working in IBM Bangalore.

I would like to work on DevOps

```
[mithuntechno@localhost ~]$
```

To save the changes back to the file use the -i option:

```
[mithuntechno@localhost ~]$ sed -i '/^s*$/d' mithun_technologies.txt
```

```
[mithuntechno@localhost ~]$ cat mithun_technologies.txt
```

Hi Guys,

My Name is Mithun Reddy L, working in IBM Bangalore.

I would like to work on DevOps

```
[mithuntechno@localhost ~]$
```

Jenkins

In my company one new joinee had done some mistakes, so not able to login. How to recover?

Ans) Disable security in conf.xml as follows

```
<<Jenkins Home Dir>/config.xml file.  
<useSecurity>true</useSecurity>
```

Then restart Jenkins, go to admin panel and set everything once again.

How to give the access for a particular project to particular user?

Ans) Use Project Based Matrix strategy.

Is it possible to change the repo url in Jenkins?

Ans) Yes

Society General Interview - Telephonic Round – Asha (30-Oct-2017) – Ashok Reddy

Jenkins

In Jenkins JaCoCo plugin got installed, but code coverage is not reporting, what parameters you will check and how you will debug? (After configuring JaCoCo correctly your not getting coverage report, how you will debug?)

Are you taking care for any pom.xml changes for pom.xml?

Ans)

How do you enable git pull request analysis in Jenkins?

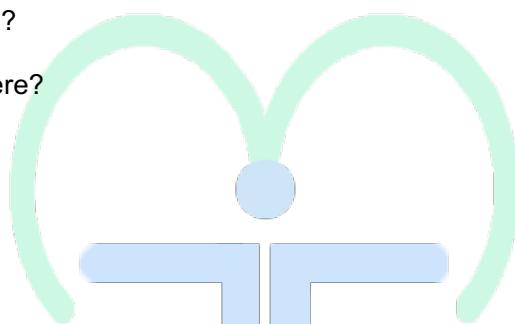
Ans)

What is the build trigger here?

Here I don't want poll scm here?

GitHub

SonarQube



Mithun Technologies

Interview - Telephonic Round –Ankit (07-Nov-2017) – Nagarjuna Reddy Gade

Requirement: Scala, Maven, Power Shell, MSBuild, Github, Bitbucket, AWS, Docker NodeJs

Can you brief me about yourself?

What is Maven build Life cycle?

What is the difference between SVN and Github?

What is git stash?

Have you configured the Jenkins automatic backup?

Have you worked on Windows servers?

Have you worked on Docker? Can you differentiate the Docker container and Docker image?

Have you setup Nagios?

NewRelci questions

Will it monitor server status as well?

Questions on AWS

=====

Neo Rays Software Solutions Pvt Ltd - Chennai

What is the umask?

What is max value of giving to umask?

Ans) UMASK (User Mask) is the default permission given when a new file or directory is created on a Linux machine. At the point when user create a file or directory under Linux or UNIX, It create with a default set of permissions. Most of the Linux distros give **022 (0022)** as default UMASK. In other words, it is a system default permissions for newly created files/folders in the machine.

- The minimum and maximum UMASK value for a folder is **000** and **777**
- The minimum and maximum UMASK value for a file is **000** and **666**

<https://www.linuxnix.com/umask-define-linuxunix/>

What is chmod?

Ans) chmod (change mode) is used to set the permissions for files and directories.

how to check ports in linux

what is the default permissions to a file

what is tricky bit.

Ansible

how to check variables in a particular host

how run a playbook in particular host

how to see list of tasks in a playbook

how to write tasks based on conditions

tell me some modules

what is the difference b/w command and shell module

AWS

what is ec2 , s3, route53, AMI.

how to access file in s3.

what is REST API

=====

Phoenix Consultants & Genisys Group

1. Do you have experience in managing applications over Production Linux servers?

2 Expand the following protocols abbreviations with port numbers. HTTPS, SNMP, LDAP, DNS. (At least 3 should be answered).

HTTPS:

LDAP:

SMTP:

SNMP:

3.What is the default port DNS server listens on and what protocol is uses(TCP/UDP)?

4 Which OSI Layer a network switch belongs to.

5 How would you find exit status of a shell script

6 What is the default SMTP port?

7. In Ansible, what is an inventory?

8 What command you will use to check if the remote server is responding to port 587?

9 What command you will use to perform network packet capture from a Linux server?

10 What is S3 & AMI in AWS?

1) You receive a call from a customer complaining that their test job has been running for 10x longer than is typical. They tell you which machine the test job is running on. What steps would you take to debug this problem?

2) How would you find a list of running processes on a Linux machine, and which one is consuming the most resources

3) How would you find a list of running processes on a Windows machine, and which one is consuming the most resources?

4) Write a GNU 'find' expression to find all files over a week old.

5) Write a script to use the 'find' expression from the previous question to delete any file returned by the 'find', unless that file is read-only.

6) Write a cron job to run 'our_backup.sh` nightly at 3AM (server time) and redirect output to a log file.

7) How would you change a system configuration setting across a group of Linux servers?

8) How do you keep track of your system configuration files?

9) How large was the last environment that you managed (or currently manage)?

10) How long did it take you to finish these exercises?

Nvizion Solutions Interview - Telephonic Round 1–Chandrasekhar (07-Dec-2017) – Ashok

1) Tell me about yourself?

2) could you please explain about the thing like what purpose we are using these applications tools for example softtools like git and jenkins and sonarqube ?

3) how tp configure all these things scartch & maintaining thing ?

4) in jenkins what are modules these available plugins will be available if you want to Declare on to tomact plugin which use in jenkins ?

5) how about linux incase some problem on server let me give example on problem how you will resolve for example network connectivity issues due to that application is not acceptable how you will resolve what are things you verified on how will you resolve it ?

6) their is network issue i asked you how you will debug that application so communicate ?

7) how will you know weather port is open or not? localhost we are not able to access that application from outside of end-user?

8) we need automate some job it will keep on 100 times of job you need to read and each file you need to container and prepare file with summarize how you will write shell script ?

9) about shell scripting we have scenario like we have some 100 files we need to read and each file some summarize you content you need put some another file ?

10) for example there is a string any value including Mithun we need collect all the information regarding that reporting to one file in that file how you put into file ?

Ans) find / -type f -exec grep -H 'Mithun' {} \;

11) we have compressed file what he will do how you write a shell script ?
12) their challenge 50 gb disk space compressed files occupying around 25 gb 100 files occupying 25 gb of space if you extract each file if it is becoming 5 gb how you able to avoid of fullfill limit stage ?

13) what is difference between Ant and Maven?

14) **What is the difference between tomcat and jboss?**

Tomcat is just a servlet container, i.e. it implements only the servlets and Jsp specification. Tomcat is from Apache Software Foundation.

Boss are full Java EE servers (including stuff like EJB, JMS, ...). JBoss is from RedHat.

What is the plugin you have installed to deploy application in Tomcat?

In case some problem occurred in Linux? Due to some connectivity issue

How to check weather port is opened or not?

#netstat -an | grep 80 | grep LISTEN

tcp46 0 0 *.8080 *.* LISTEN

15) what is meant by enterprise application?

Ans) An enterprise application (EA) is a large software system platform designed to operate in a corporate environment such as business or government.

16) why we required war or ear files?

17) in devops what type tools used commonly?

18) explain about LDAP server?

19) what about jfrog ?

20) are you familiar with ZENDEF and docker?

Nvizion Solutions Interview - Telephonic Round 2-Benenjia (11-Dec-2017) – Ashok

Do you know how to create the Virtual machine in IBM cloud?

Ans)

How to clone the Virtual Machine?

Do you have knowledge on Load balancer?

Yes, I know.

Load balancing is the process of distributing workloads and computing resources across one or more servers. This kind of distribution ensures maximum throughput in minimum response time. The workload is segregated among two or more servers, hard drives, network interfaces or other computing resources, enabling better resource utilization and system response time.

Cloud providers like **Amazon Web Services (AWS)**, **Microsoft Azure** and Google offer cloud load balancing to facilitate easy distribution of workloads. For ex: AWS offers **Elastic Load balancing (ELB)** technology to distribute traffic among EC2 instances. Most of the AWS powered applications have ELBs installed as key architectural component.

Similarly, **Azure's Traffic Manager** allocates its cloud servers' traffic across multiple data centers.

Different companies may use different load balancers and multiple load balancing algorithms like static and dynamic load balancing. One of the most commonly used methods is Round-robin load balancing.

It forwards client request to each connected server in turn. On reaching the end, the load balancer loops back and repeats the list again. The major benefit is its ease of implementation. The load balancers check the system heartbeats during set time intervals to verify whether each node is performing well or not.

What is Kernel?

Ans) The *kernel* is a program that constitutes the central core of a computer operating system.

The kernel is the first part of the operating system to load into memory during *booting* (i.e., system startup).

How you can create the partitions in Hard disk?

Ans)

Is it possible to create the partitions with in a current hard drive?

Ans)

Suppose you have 500GB hard disk in that allocate 200 GB to one of the user, Is it possible?

Ans)

What is the command for giving the execute permissions for a shell script?

Ans)

chmod u+rx clargs.sh

Suppose if you don't give read permission, it will not execute, give Permissions denied error. So along with execute permissions, you have to give read permissions as well.

Somebody have read and execute permissions for one file. Is it possible to update that file?

Ans) No

Somebody have write and execute permissions for one file. Is it possible to read that file?

Ans) No

```
Bhaskars-MacBook-Air:~ bhaskarreddyl$ ls -l mithun.txt
--wx----- 1 bhaskarreddyl staff 40 Dec 11 16:47 mithun.txt
Bhaskars-MacBook-Air:~ bhaskarreddyl$ cat mithun.txt
cat: mithun.txt: Permission denied
Bhaskars-MacBook-Air:~ bhaskarreddyl$ chmod u+r mithun.txt
Bhaskars-MacBook-Air:~ bhaskarreddyl$ cat mithun.txt
Hi Guys,
Welcome to DevOps Training..
Bhaskars-MacBook-Air:~ bhaskarreddyl$ chmod u-w mithun.txt
Bhaskars-MacBook-Air:~ bhaskarreddyl$ cat mithun.txt
Hi Guys,
Welcome to DevOps Training..
Bhaskars-MacBook-Air:~ bhaskarreddyl$ ls -l mithun.txt
-r-x----- 1 bhaskarreddyl staff 40 Dec 11 16:47 mithun.txt
Bhaskars-MacBook-Air:~ bhaskarreddyl$
```

What is meant by Group in linux?

Ans) Linux is a multi user operating system. In Linux a group is a collection of users. It is used to organise the users.

Assigning users to groups makes it easier to manage permissions. For example, you can set permissions to ensure that files are accessible to people in a particular group like development, devops, etc.

Whenever a user is created, by default, they are added to a new group with the same name as the username. This is called the primary group of the user.

Below is the default values for group ids and system ids.

```
#cat /etc/login.defs
#
# Min/max values for automatic gid selection in groupadd
#
GID_MIN          1000
GID_MAX          60000
#
# System accounts
SYS_GID_MIN      201
SYS_GID_MAX      999
```

All the group names are saved in the /etc/group file.

#cat /etc/group: It will display the all the group names.

#cat /etc/group | grep mithuntechnologies

```
[root@localhost mithuntechnologies]# cat /etc/group | grep mithuntechnologies
mithuntechnologies:x:1002:
[root@localhost mithuntechnologies]#
```

The first part is the name of the group.
x is a placeholder for password.
The next part is the group ID.
The last part is a comma-separated list of usernames that belong to that group.

How to create the user in group?

Ans)

Once you create the user in Linux, Where the entry will be made?

Ans)

When we run 'useradd' command in Linux terminal, it performs following major things:

It edits /etc/passwd, /etc/shadow, /etc/group and /etc/gshadow files for the newly created User account.
Creates and populate a home directory for the new user.
Sets permissions and ownerships to home directory.

What is the service name for Apache HTTP server?

Ans) httpd

What is the service name for Tomcat?

Ans) tomcat6 for Tomcat 6X

tomcat7 for Tomcat 7x version

How to Lock User Accounts on Linux System?

Ans)

1st Option

usermod <<User Name>> -L

This just changes the shadow file and adds "!" in front of the user password:

Below screenshot is took before executing the usermod <<User Name>> -L command.

```
mithuntechnologies:$6$w/2ZtDTm$S8V1Yw.Exh2WmgijJVCHjuLS255ifDk/Zwudvbn0rJ5y0xfkXBrjNvNsUeuGFVLY/tzs
dq2pz/ZCeQecnB0zw0:17511:0:99999:7:::
```

usermod mithuntechnologies -L

```
mithuntechnologies:$6$w/2ZtDTm$S8V1Yw.Exh2WmgijJVCHjuLS255ifDk7Zwudvbn0rJ5y0xfkXBrjNvNsUeuGFVLY/tzs
tdq2pz/ZCeQecnB0zw0:17511:0:99999:7:::
```

2nd Option:

#passwd -l <User Name>

```
[root@localhost mithuntechnologies]# passwd -l mithunreddy
Locking password for user mithunreddy.
passwd: Success
[root@localhost mithuntechnologies]#
```

Once you execute the above command, it will add two '!' marks in the password field in /etc/shadow file.

```
[root@localhost mithuntechnologies]# cat /etc/shadow | grep mithunreddy
mithunreddy:$!$6$nlgT2Zt8$vcQxj8B8hFgmCP8yGt8hfK/o63lttWA5sP3LgQw/V4rIe6hJj9Nd0V4iFpcZ6ggVsAU99U8LxvqVcagKvhSaq1
:17513:0:99999:7:::
[root@localhost mithuntechnologies]#
```

How to enable the user?

Ans)

1st Option

```
usermod mithuntechnologies -U
```

2nd Option

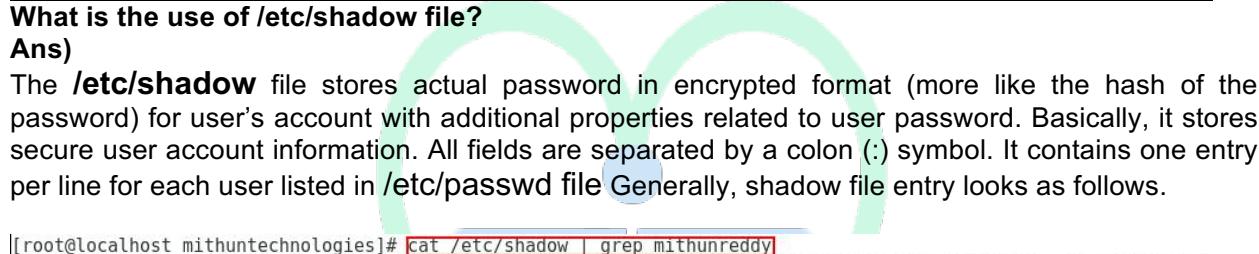
```
[root@localhost mithuntechnologies]# passwd -u mithunreddy
Unlocking password for user mithunreddy.
passwd: Success
[root@localhost mithuntechnologies]#
```

What is the use of /etc/shadow file?

Ans)

The **/etc/shadow** file stores actual password in encrypted format (more like the hash of the password) for user's account with additional properties related to user password. Basically, it stores secure user account information. All fields are separated by a colon (:) symbol. It contains one entry per line for each user listed in **/etc/passwd** file. Generally, shadow file entry looks as follows.

```
[root@localhost mithuntechnologies]# cat /etc/shadow | grep mithunreddy
mithunreddy:$!$6$nlgT2Zt8$vcQxj8B8hFgmCP8yGt8hfK/o63lttWA5sP3LgQw/V4rIe6hJj9Nd0V4iFpcZ6ggVsAU99U8LxvqVcagKvhSaq1:1
7513:0:99999:7:::
[root@localhost mithuntechnologies]#
```

- 
1. **Username** : It is your login name.
 2. **Password** : It is your encrypted password. The password should be minimum 8-12 characters long including special characters, digits, lower case alphabetic and more. Usually password format is set to \$id\$salt\$hashed, The \$id is the algorithm used On GNU/Linux as follows:
 1. **\$1\$** is MD5
 2. **\$2a\$** is Blowfish
 3. **\$2y\$** is Blowfish
 4. **\$5\$** is SHA-256
 5. **\$6\$** is SHA-512
 3. **Last password change (lastchanged)** : Days since Jan 1, 1970 that password was last changed
 4. **Minimum** : The minimum number of days required between password changes i.e. the number of days left before the user is allowed to change his/her password
 5. **Maximum** : The maximum number of days the password is valid (after that user is forced to change his/her password)
 6. **Warn** : The number of days before password is to expire that user is warned that his/her password must be changed
 7. **Inactive** : The number of days after password expires that account is disabled
 8. **Expire** : days since Jan 1, 1970 that account is disabled i.e. an absolute date specifying when the login may no longer be used.

How to find out which process is listening upon a port?

Ans) Use of the below commands

```
netstat -a
```

(OR)

lsof

Examples:

lsof -i :80

netstat -an | grep 80 (netstat -an | grep LISTEN | grep 80)

and also see all services in **/etc/services** file

How to configure HTTP server?

Ans)

How to create the SSL certificates?

Ans)

How to enable the SSL in httpd?

Ans)

LoadModule ssl_module modules/mod_ssl.so

Listen 443

```
<VirtualHost *:443>
    ServerName www.example.com
    SSLEngine on
    SSLCertificateFile "/path/to/www.example.com.cert"
    SSLCertificateKeyFile "/path/to/www.example.com.key"
</VirtualHost>
```

How to write rewrite rules in apache?

Ans)

<https://httpd.apache.org/docs/2.4/rewrite/remapping.html>

mod rewrite

```
RewriteEngine on

RewriteRule      "^.+/.html$"      "/bar.html" [PT]

//For Redirecting

Redirect "/foo.html" "/bar.html"

#With RedirectMatch

RedirectMatch "^.+/docs/(.*)" "http://new.example.com/docs/$1"

#With Redirect

Redirect "/docs/" "http://new.example.com/docs/"
```

Character Meaning	Example
.	Matches any single character c.t will match cat, cot, cut, etc.
+	Repeats the previous match one or more times a+ matches a, aa, aaa, etc
*	Repeats the previous match zero or more times. a* matches all the same things a+matches, but will also match an empty string.
?	Makes the match optional. colou?r will match color and colour.
^	Called an anchor, matches the beginning of the string ^a matches a string that begins with a
\$	The other anchor, this matches the end of the string. a\$ matches a string that ends with a.
()	Groups several characters into a single unit, and captures a match for use in a backreference. (ab)+ matches ababab - that is, the + applies to the group. For more on backreferences see below .
[]	A character class - matches one of the characters c[uoa]t matches cut, cot or cat.
[^]	Negative character class - matches any character not specified

[RewriteRule](#) consists of three arguments separated by spaces.

The arguments are

1. *Pattern:* which incoming URLs should be affected by the rule;

2. *Substitution*: where should the matching requests be sent;
3. *[flags]*: options affecting the rewritten request.

Is it possible to deploy the Hot fixes in Tomcat?

Ans) Yes we can deploy, but after deployment have to restart the application.

Exilant Technologies – Interview Questions (F2F) – 09/12/17 Gangadhar Reddy

1) Write a shell script for adding two numbers ?

Ans)

`#!/bin/bash`

`#Author: Mithun Reddy L`

`#Purpose: Addition Demo`

`echo "Enter the 2 numbers"`

`read numb1 numb2`

`echo The addition of 2 numbers is : `expr $numb1 + $numb2``

Note: If you don't give space between \$numb1 and \$numb2, it will not do addition.

``expr $numb1+$numb2` ---> Wrong`

``expr $numb1 + $numb2` ---> Correct approach`

2) What is ps command ?

Ans) Refer my notes.

3) What is the command to display only 500 as o/p ?

`file.txt`

Hi., I have 500 rupees note.

4) What is shebang ?

5) What is C & B permissions for a file?

6) In maven, how can you deploy artifacts to remote repo ? Here lets assume, remote repo like nexus..etc. In that I don't want to use remote repo url & credentials every time. How can achieve it?

7) Explain what is Jfrog repo? How can you deploy artifacts to jfrog?

- 8) **Scenario:** In Jenkins, I have 100 jobs. Each job having 20 builds. But I need to save only 3 builds for particular job. How can you do?
- 9) For the above scenario, how can you configure Jenkins need to save only 3 builds for all 100 jobs in single shot?
- 10) What is web hooks and services and how it works?
- 11) What is poll scm?
- 12) What is inventory file and default path of it?
- 13) How can you use customized inventory file. Write adhoc command for it?
- 14) In ansible, there are master with some nodes. how can you know which nodes are up & down?
- 15) In inventory file, I have configured nodes as

[dbservers]

A 10.2.0.1

B 10.3.0.2

C 10.2.0.3

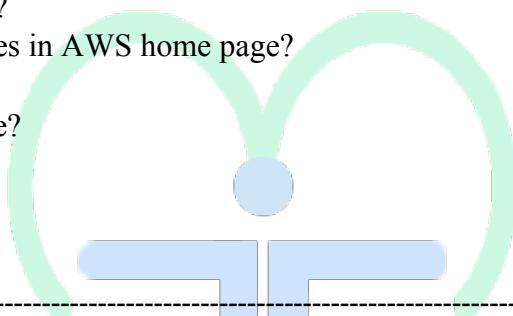
Write a command to know the status of server B only?

- 16) How can you connect from ansible master to other nodes?
- 17) Explain password less communication in ansible?
- 18) In password less communication, where you can copy ssh-keys in nodes?
- 19) How can you find out, on which port your server/application is running?
- 20) Write script(ansible) to know the status of other nodes, means which nodes are running and which are not?
- 21) What is jar/war/ear?
- 22) What is the difference between Application server and Web server?
- 23) Can you deploy artifacts into Web server . If yes, how?
- 24) What is Docker . why we need to use it?
- 25) Write a Docker file to install apache tomcat server?
- 26) **Scenario:** After successful deployment of an Application , it having one url. At the time of using it, I got error no:401 . what is it? How can you debug it?
- 27) For the above scenario, what is error no: 500? How can you debug it?
- 28) After successful deployment of an Application into server, suddenly it got some errors (i.e. application not working properly), but server is up. How can you debug it?

Harman ITPL interview F2F -16-12-2017 Venkat

- 1) Tell me about your self?
- 2) Tell me some Linux commands?

- 3) Tell me about filesystem in Linux?
- 4) How to know which process running in Linux?
- 5) Use of netstat command in Linux ?
- 6) How to create jobs in Jenkins?
- 7) Some plugins in Jenkins?
- 8) In shell script mean of /bin/bash/ ?
- 9) Write a shell script use if, else?
- 10) Tell me about docker?
- 11) What is Dockerfile?
- 12) Why use Ansible?
- 13) Write some playbook?
- 14) Tell me about AWS?
- 15) Tell me some features in AWS home page?
- 16) What is maven?
- 17) Use of POM.xml file?
- 18) What is git clone?
- 19) What is git fetch?
- 20) Use of SSH?



Nvizion Solutions Interview - Telephonic Round 1–Chandrasekhar (13-Dec-2017) – Gangadhar.

Mithun Technologies

How to install Apache HTTP server?

**Mithun
Technologies**

#!/bin/bash

```
if [[ $# -eq 3 ]]
then
echo "you have passed the $# args"
else
echo "Pass at least 3 command line args"
fi
```

Nvizion Solutions Interview - Telephonic Round 2–Benenjian (20-Dec-2017) – Gangadhar

Nvizion Solutions Interview - Telephonic Round 3– COO (Chief Operating Officer)Manoj Bubna(22-Dec-2017) – Gangadhar

Oracle - Telephonic Round 1–Gokul (20-Dec-2017) – Saida Reddy

<https://stackoverflow.com/questions/16205778/what-are-maven-goals-and-phases-and-what-is-their-difference>

Oracle - Telephonic Round 2 –Srinivas –from US (20-Dec-2017) – Saida Reddy

Oracle - Telephonic Round 3 –Kesav from US (20-Dec-2017) – Saida Reddy

Virtusa - Telephonic Round 1 (20-Dec-2017) – Konda Reddy

Poshmark – Skype Round 1 (04-Jan-2018) – Saida Reddy

What is EBS?

What is AMR?

What are the states in EC2 instance?

Informatica – Telephonic Round 1 (12-Dec-2017) – Sreekanth Reddy

Refer Audio

Informatica – Telephonic Round 1 - Narendra Sr Director of QA - (04-Jan-2018) – Sreekanth Reddy

opentext EGL Bangalore - Telephonic Round 1 (05-Jan-2018) – Sreekanth Reddy

How to call target of another build file from other build file?

Ans) **File Name:** build.xml

```
<project name="Test" default="FirstTarget">
<include file="build2.xml" as="otherFile"/>
<target name="FirstTarget">
    <antcall target="otherFile.SecondTarget" />
    <echo message="First Target Finished.." />
</target>
</project>
```

File Name: build2.xml

```
<project name="SecondProject">
<target name="SecondTarget" depends="ThirdTarget">
    <echo message="Second Target called..." />
```

```
</target>  
<target name="ThirdTarget">  
    <echo message="Third Target called..."/>  
</target>  
</project>
```

How to invoke the particular target in build.xml?

Ans) ant -f <Build file name>
ant -f build2.xml ThirdTarget

How to run the particular profile in pom.xml

What is the difference between parent pom.xml and child pom.xml?

What is settings.xml?

What is plugin management tag in pom.xml?

What is the difference between mvn install and mvn deploy?

Suppose in maven build took 5 hours and stopped due to some issues, again now I want to run from there it self where it failed not from starting how to do?

Jenkins
What is master and slave in Jenkins?
Can we have more than 1 master in Jenkins?
What are the launch methods in while creating slaves?

Github

What are the merge strategies ?

What is branch?

What is the difference between branch and tag?

Docker

What is Dockerfile?

How to create docker image?

How to pull any image?

How to save an image into docker hub?

What is the command to write in docker file for getting ubuntu base image?

After downloading Ubuntu image where it will save?

How to see all docker images?

How to see all docker container?

How to connect to container?

How to login into dockerhub?

opentext EGL Bangalore – F2F Round 2 (08-Jan-2018) – Sreekanth Reddy

Linux

- 1.what is the use of find command?
- 2.i want to kill one process running as java ? How to kill?
- 3.how to give permissions
- 4.In chmod 777 what is happening in background
- 5.what is the use of ssh?

Maven

- 1.How to call targets in pom.xml?
- 2.what is settings.xml
- 3.pom.xml structure?
- 4.lifecycle of maven?
- 5.how to run maven pom.xml in command prompt?
- 6.maven workflow to take the backup in nexus?
- 7.Difference b/w snapshot and release?

Ant

- 1.Ant installation process
- 2.where you can set the java path
- 3.what type build fail issues you faced in ant and how you solve.
- 4.what is dependency target?

Git

- 1.what type of tasks you did in git?

Svn

- 1.why we create branches
- 2.what is the use of tags

Docker

- 1.What is docker image?
- 2.what is docker container?
- 3.Diff b/w docker image and docker file?

Tomcat

1.how to run an application in Tomcat web server?

Jenkins

- 1.what is pipeline
- 2.How to run multiple jobs at a time
- 3.How to get a notification if scheduled build is failed
- 4.what is clean install deploy

SBSC – Telephonic Round 1 (08-Jan-2018) – Ashok Reddy

1)what was responsibilities in your company ?what is the day to day activities daily?

2)how to create docker image?

3)why we use creating the base image in docker file?

4)**What is the difference between git & GitHub?**

Ans) Git is a distributed version control system that allows developers to track changes in their computer files and work in collaboration with other developers.

Github is a web-based Git repository hosting service, where you can put source code.

Github and Bitbucket is developed on top of Git.

5)Can we use YAML or JSON format in docker?

Ans)

6)**What is the difference between virtual and docker?**

Ans)

7)How to integrate Jenkins with SonarQube?

Ans)

8)Are you working with Jira user or admin?

9)Why we use extra nodes in Jenkins? Jenkins backup, Jenkins pipeline,

10)How to create playbooks in Ansible? did use the script in ansible?

11)**How to check in Linux server swap space? What is swap space?**

Ans) You can use **free -h** command, **top**, **cat /proc/swaps** or **swapon -s** command to display/see swap information on your system.

#free

```
[devops@mithuntechnologies ~]$ free
              total        used        free      shared  buff/cache   available
Mem:       1016232      566348     115100      26608      334784      217524
Swap:      839676      363060     476616
[devops@mithuntechnologies ~]$
```

#top

```
top - 05:55:20 up 6 days, 12:25, 2 users, load average: 0.01, 0.06, 0.05
Tasks: 173 total, 1 running, 172 sleeping, 0 stopped, 0 zombie
%CPU(s): 0.7 us, 0.3 sy, 0.0 ni, 99.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1016232 total, 117024 free, 564424 used, 334784 buff/cache
KiB Swap: 839676 total, 476616 free, 363060 used. 219448 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1718	bhaskar+	20	0	1978440	242868	25780	S	0.7	23.9	15:47.35	gnome-shell
1080	root	20	0	323996	28316	3676	S	0.3	2.8	5:39.06	X
1	root	20	0	193700	4380	2524	S	0.0	0.4	0:43.88	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.29	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:05.77	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:10.43	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:05.57	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.01	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.35	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:09.82	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:01.85	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf

#cat /proc/swaps

```
[devops@mithuntechnologies ~]$ cat /proc/swaps
Filename                                Type      Size    Used   Priority
/dev/dm-1                                 partition 839676  363060  -1
```

[devops@mithuntechnologies ~]\$ █

#swapon -s:

```
[devops@mithuntechnologies ~]$ swapon -s
Filename                                Type      Size    Used   Priority
/dev/dm-1                                 partition 839676  363060  -1
```

Swap space is a restricted amount of physical memory that is allocated for use by the operating system when available memory (RAM) has been fully utilized.

SBSC – Skype Round 2 – Vijay Misra - (11-Jan-2018) – Ashok Reddy

SBSC – Telephonic Round 3 – - (12-Jan-2018) – Ashok Reddy

Accenture – Telephonic Round 1 - (23-Jan-2018) – Rajasekhar

git-cherry-pick

Git branch strategy

<http://nvie.com/posts/a-successful-git-branching-model/>

How to commit one branch code to another branch?

How to revert after coming into repository?

Sapient – Skype Round 1 - (24-Jan-2018) – Venkatesh (Surewin)

What is the difference between ANT and Maven?

git practices

Test Before You Commit

Write Good Commit Messages

Don't Commit Half-Done Work

Do you know about gitlab?

Gerrit is a web based code review system, facilitating online code reviews for projects using the Git version control system.

KPIT through HP – Telephonic Round 1 - (07-Feb-2018) – Venkatesh (Surewin)

AWS

What is EC2?

How to start the EC2 instance?

What is S3?

What is Cloud Watch?

How to connect to Data center?

How to convert Public IP to Private for EC2 instance?

What are the EC2 states?

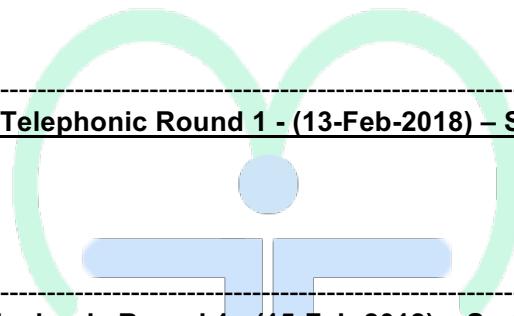
What is Availability?

Git

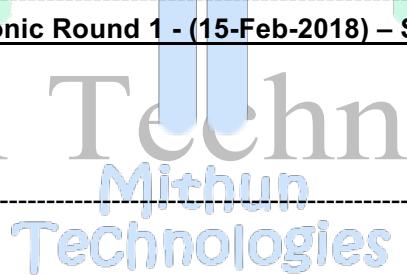
How to revert the code already pushed to code?

Can you tell me about branching strategy?

Qualcomm – Telephonic Round 1 - (12-Feb-2018) – Gangadhar (Scela)



NagraVision – Telephonic Round 1 - (13-Feb-2018) – Sarfarz (Surewin)



Mirafra – Telephonic Round 1 - (15-Feb-2018) – Sarfarz (Surewin)

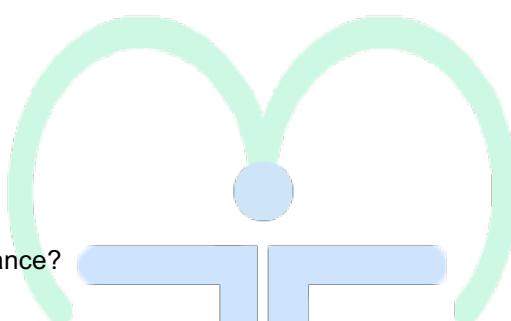


AWS Questions

1. What is AWS (Amazon Web Service)?

2. What are the key components of AWS(Amazon Web Service)?

3. What is IAM service?
4. What is AWS Certificate Manager?
5. What is S3?
6. What is AMI (Amazon Machine Image)?
7. Mention what is the relation between an instance and AMI?
8. What is Redshift?
9. What Is Amazon EC2?
10. What Is Amazon EC2 instance?
11. Exmplain some features of Amazon EC2?
12. Mention what are the differences between Amazon S3 and EC2?
13. How many buckets can you create in AWS by default?
14. What is T2 instances?
15. What is C4 instances?
16. Explain how the buffer is used in Amazon web services?
17. What is DynamoDB?
18. What is ElastiCache?
19. What is the AWS Key Management Service?
20. What is AWS WAF? What are the potential benefits of using WAF?



Mithun Technologies

**Mithun
Technologies**

21. What is Amazon EMR?
22. What is AWS Data Pipeline? and what are the components of AWS Data Pipeline?
23. What is Amazon Kinesis Firehose?
24. What Is Amazon CloudSearch and its features?
25. What is Regions and Endpoints in AWS?
26. How to find your regions and Availability Zones using the Amazon EC2 CLI?
27. What is Amazon AppStream and advantage of using AppStreaming?
28. Which AWS responsible for managed email and calendaring?
29. What are the benefits of EBS vs. instance-store?
30. How you will find out the instance id from within an ec2 machine?
31. How do you pass custom environment variable on Amazon Elastic Beanstalk (AWS EBS)?
32. Is it possible to use AWS as a web host? What are the way of using AWS as a web host?
33. How step you follow to make 10,000 files as public in S3?
34. How do you see how much disk space is using by S3 bucket?
35. What happens when I reboot an EC2 instance?
36. Write down the command you will use to copy all files from one S3 bucket to another with s3cmd?
37. How you will change the root EBS device of my amazon EC2 instance?
38. What is the difference between Amazon SNS and Amazon SQS?

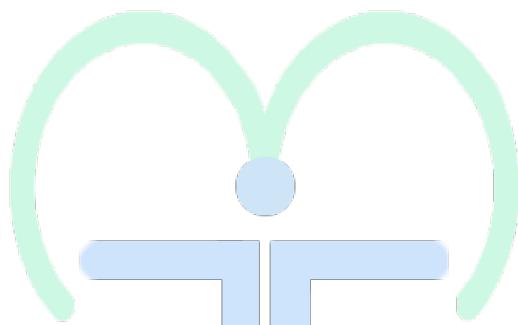
39. How many objects you can put in a S3 bucket? is there a limit to the number of objects I can put in an S3 bucket?

40. How to delete files recursively from an S3 bucket?

41. How to access/ping a server located on AWS?

Using UI:

42. What is the maximum length of a file-name in S3



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