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## BIG DATA

### HOMEWORK 1

Q 1: Open the file /var/log/messages in the vi editor and delete line number 150.

\$vi /var/log/messages used to open a message file.

:set number used to set specific line of the line inside the file. :150 d representation of particular line to be delete

:wq command used to exit and save from a file.

Q 2: Write a shell script to add two numbers?

```
#!/bin/bash
```

```
# Calculate the sum of two integers with pre initialize values
```

```
# in a shell script a=40
```

```
b=40 sum=$(( $a + $b ))
```

```
echo "Sum : $sum"
```

output : Sum : 80

Q 3:User root wants to copy /etc, including all subdirectories and files to /tmp.

How will you achieve this task?

below command can we achieve copy /etc, including all subdirectories and files to /tmp. sudo cd /etc cp -r /etc tmp

Q 4:Create a file that contains only the username and the user id of all the user present on the server.

```
$cat /etc/passwd
```

By this unix command can we create a file that contains only the username and the user id of all the user present on the server.

Q 5:How will you provide a count of all users on the system except for adm user?

```
$ who
```

above command we can count a all users on the system except for adm user.

Q 6:How will you list all files in /tmp in increasing order of their size?

"\$ ls -laShr" Using this command we can list the files in increasing order. To list all files and sort them by size, use the -S.

By default, it displays output in descending order (biggest to smallest in size). -l

flag means long listing and -a tells ls to list all files including (.) or hidden files.

human-readable format by adding the -h

And to sort in reverse order, add the -r flag.

Q 7:What command is used to clear history on the Linux server? Removing history

to delete a particular command, enter history -d <line number> . To clear the entire contents of the history file, execute history -c .

Q 8:Explain "Big Data" and what are five V's of Big Data BigData.

Big data is a collection of data from many different sources and is often describe by five characteristics:

Volume.

Variety.

Velocity.

Veracity.

Value.

Q 9: What is Hadoop and its components?

Apache Hadoop is **an open source framework that is used to efficiently store and process large datasets ranging in size from gigabytes to petabytes of data.**

1. Hadoop HDFS - Hadoop Distributed File System (HDFS) is the storage unit.
2. Hadoop MapReduce - Hadoop MapReduce is the processing unit.
3. Hadoop YARN - Yet Another Resource Negotiator (YARN) is a resource management unit.