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1. Linux Commands
2. Shell Scripting

**Linux Commands:**

1. Ifconfig: checks whether the communication is taking place between the operating systems.
2. Ls -l: lists all the properties and permission of a file
3. Ls -lrth: lists all the properties of file and permission of file sorted acc to time
4. Ls -lth: properties are listed and sorted reverse of time
5. Ls -a: shows all hidden file
6. Vi: opens text editor on linux
7. Vi file\_name: opens text editor with corresponding filename on vim
8. Tail: output the last part of files
9. Tail -f file\_name: shows all the live changes made in a file
10. Tail -1f file\_name: shows the latest change made to the file
11. Less file\_name : shows all the live changes made in a file
12. Grep “ abc” file\_name | wc -l : searches for char “abc” and returns the count of the char
13. Grep “ abc” -i file\_name | wc -l : searches for char “abc” and returns the count of the char but case insensitive
14. Ps -ef: shows all the processes
15. Mv script.sh script1.sh : change file name of script.sh to script1.sh
16. Df -a: different file systems, how much file systems are occupied
17. Df -h: different file systems, how much file systems are occupied (h=human readable format)
18. Pwd: shows current directory
19. Clear: clear the screen
20. Uname: type of os
21. Uname -r: version of os (-r = recursive)
22. Uname -a: all details of os (a =all)
23. History: check the history of commands
24. Echo “content” >> file\_name : adds the content in file\_name
25. Echo “content” >file\_name: changes the content in file\_name
26. Cat file\_name: print the contents of the file
27. Ls: all the files in current directory. (Ls = list)
28. Cd : (change directory)
29. Touch file\_name: creates the file
30. Rm file\_name: removes the file
31. Mkdir folder\_name: make directory
32. Rmdir folder\_name: removes the directory
33. Cp file\_name /location: copy the file to new directory.

**Shell Scripting**

**Problem 1:** How to use variable in Linux?

**Code:**

#!/bin/bash

name=chirag

age=21

echo my name is $name and age is $age

host=$(hostname)

echo my host name is $host

**Output:**

my name is chirag and age is 21

my host name is training.sailpoint.com

**Problem 2:** How to take user input in Linux?

**Code**:

echo please enter your name:

read name

echo my name is $name

**Output:**

please enter your name:

chirag

my name is chirag

**Problem 3:** How to use if-else statement in Linux?

**Code:**

#!/bin/bash

echo Hello user

echo Please enter your age

read age

if [ $age -ge 18 ]

then

echo You are eligible to vote

else

echo You are not eligible to vote

fi

**Output:**

Hello user

Please enter your age

23

You are eligible to vote

**Problem 4:** How to use for loop in Linux?

**Code:**

!/bin/bash

for num in 1 2 3

do

echo Number is $num

done

for task in Read Write Vlog EAt sleep

do

echo my task is $task

done

**Output:**

Number is 1

Number is 2

Number is 3

my task is Read

my task is Write

my task is Vlog

my task is EAt

my task is sleep