OSOC INDUCTIONS TASK

**Q1. Command for searching pattern line by line in any document with an example.**

Ans:- ‘grep’ is the command for searching a pattern line by line in a document.

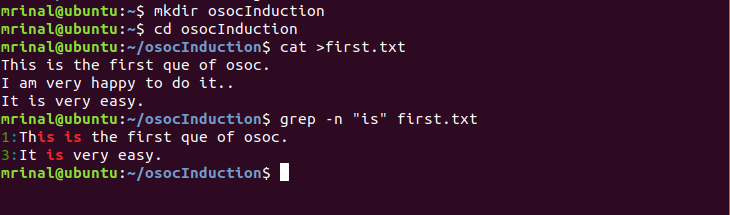
Syntax: grep [options] pattern document

Eg:- **grep -n “is” first.txt**

Here **‘–n’** is the option for checking pattern line by line

**“is”** is the pattern specifying line must have “is”

**‘first.txt’** is the file name



**Q2. What all permissions are there in Linux? State all permissions and different way of changing permissions with example**.

Ans:- There are three types of permissions

**Read (r) :-** to enable users to read the file

**Write(w)** :- to enable the users to write or make changes to file

**Execute(x)** :- to enable the users to execute the file

There are three types of users

**User**:- owner of the file

**Group**:- group of the user

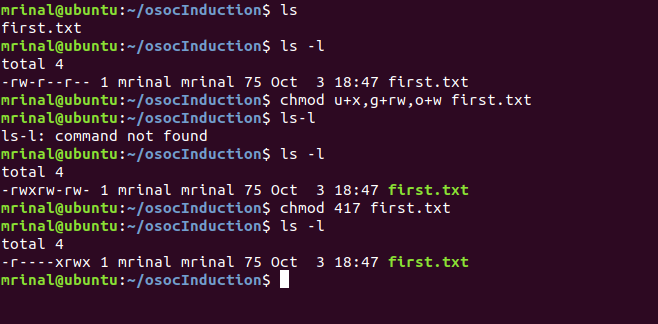
**Others**:- all the others

Ways to change the permissions

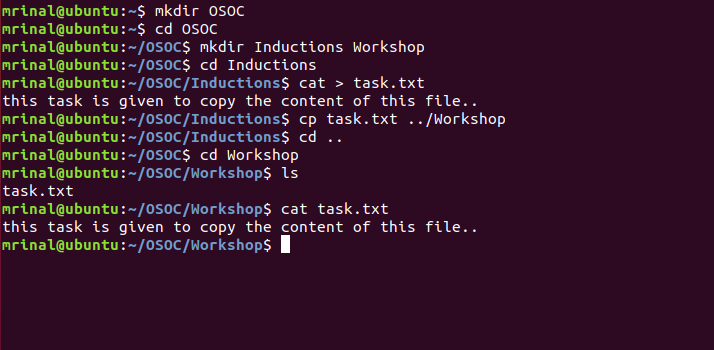
We can change the permission using ‘chmod’ command, ‘+ ’ is used for adding the permission, ’-’ is used for removing the permission and ‘=’ is used for assigning the permission sequence.

1.using 9 character long sequence of r,w,x.

2.using octal no.



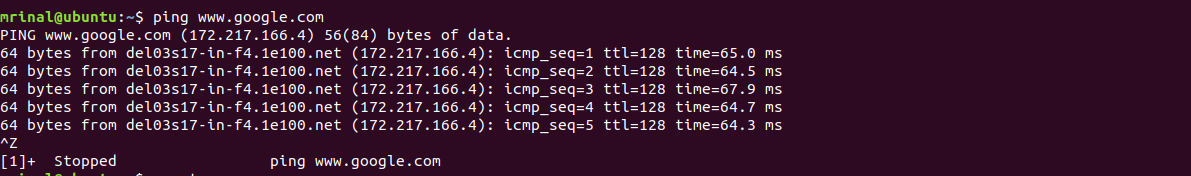
**Q3. Create a folder OSOC and inside that another folder Inductions and now create a file task.txt inside Inductions with some content now copy this file into another folder Workshop in OSOC.**

Ans:- 

**Q4. I want to check whether my system is connected to any network or not, please suggest appropriate command for this.**

Ans:- ping command can be used to check whether system is connected or not

Syntax: ping website\_name



**Q5. I want to change password of another user how will I do that?**

Ans:- passwd username or sudo passwd username.

Eg:- passwd abc



**Q6. Using shell scripting write program for sort an Array. Input should be taken from user**.

Ans:- #!/bin/bash

echo "Enter the no of elements"

read n

echo "Enter the elements"

for((i=0;i<n;i++))

do

read a[$i]

done

for((i=0;i<n-1;i++))

do

for((j=i+1;j<n;j++))

do

if((a[i] > a[j]))

then

temp=${a[i]}

a[$i]=${a[j]}

a[$j]=$temp

fi

done

done

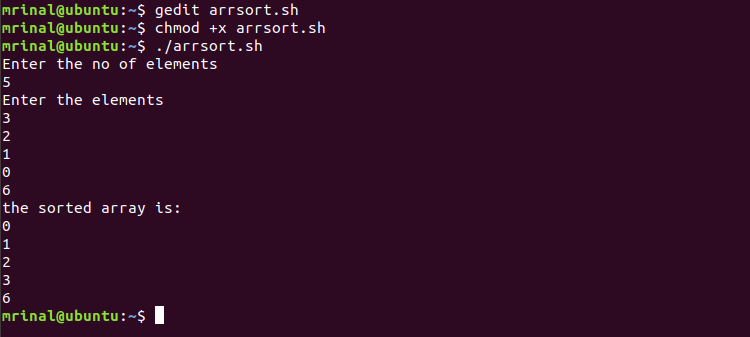
echo "the sorted array is:"

for((i=0;i<n;i++))

do

echo ${a[i]}

done



**Q7. Using Shell scripting write a program to reverse a string. Input should be taken from user.**

Ans:- #!/bin/bash

echo "Enter the string you want to reverse"

read str

len=`echo $str | wc -c`

len=`expr $len - 1`

rev=""

while test $len -gt 0

do

rev1=`echo $str | cut -c$len`

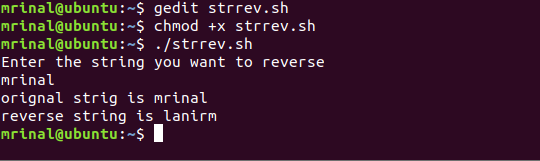
rev=$rev$rev1

len=`expr $len - 1`

done

echo orignal strig is $str

echo reverse string is $rev



**Q8. What is the concept of Branching? How it is useful? Explain with working example.**

Ans:- Branches in Git are nothing but pointers to a specific commit. Git generally prefers to keep its branches as lightweight as possible.

There are basically two types of branches viz. ***local branches*** and ***remote tracking branches***.

A local branch is just another path of your working tree. On the other hand, remote tracking branches have special purposes. Some of them are:

* They link your work from the local repository to the work on central repository.
* They automatically detect which remote branches to get changes from, when you use **git pull**.



**Q9. What is Push, Pull and Commit? Explain with example**.

Ans:- **Push** :- The git push command is used to transfer or push the commit, which is made on a local branch in your computer to a remote repository like GitHub.

git push 'remote\_name' 'branch\_name'

**Pull:-**  If you make a change in a repository, GIT PULL can allow others to view the changes. It is used to acknowledge the change that you've made to the repository that you're working on. Or also called a target repository.

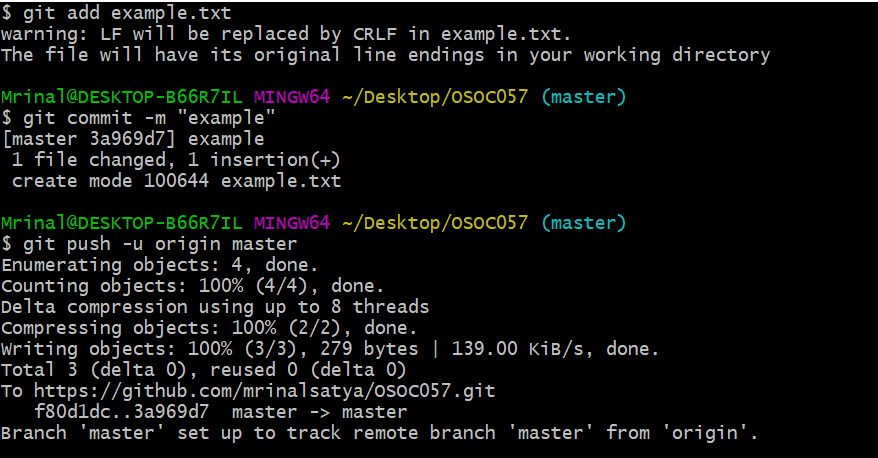
The simple command to PULL from a branch is:

git pull 'remote\_name' 'branch\_name'

**Commit:-** The "commit" command is used to save your changes to the local repository.

Syntax:git commit –m file name

-m: **Sets the commit's message.**



**Q10. Explain how we can restore a file after a commit with an Example.**

Ans:- we can restore a file to previous commits by using ‘checkout’, ’revert’ command

Syntax: git checkout <commit\_ID> path/to/the/file.txt

git revert <commit\_ID>

**Q11. How to preview the changes you have made before applying merging command? (write optimized command).**

Ans:- We can first update our local repository by using command

$git fetch

And after that we can

**Q12. How to apply any commits of current branch ahead of specified one? (write command with screenshot of command line).**

Ans:-Branches are pointers to a specific commit.

Branches are of two types: Local Branches,Remote-tracking branches. There is always a master branch which contains all the codes. Suppose we want some changes but not sure to add to master branch or not, then we make another branch. Once we are sure to add those code we merge the local branch into master branch.

**Q13. what is stash stack? How to write working from top of stash stack? (write answer and show screenshot of command on command line).**

Ans:- Stashing : git stash temporarily shelves (or stashes) changes you've made to your working copy so you can work on something else, and then come back and re-apply them later on. Stashing is handy if you need to quickly switch context and work on something else, but you're mid-way through a code change and aren't quite ready to commit.

Command: git stash “filename”

**Q14. How to show the commits on ex (branch Ankur) that are not on ex (branch Ruchita )? (write command with screenshot of command line).**

Ans:-