# Assignment - 1
## Part 1: Linux Commands

## Linux Directory Commands

pwd -  to display the location of the current working directory
mkdir - to create a new directory under any directory
rmdir -  to remove a directory
isCommand - to display the list of content of a directory
cd - to change the current directory


## Linux File Commands

touch - to create a empty directory.(can create multiple directory by executing it once)
cat - to create a file, display content of the file, copy the content of one file to another.
rm - to remove a file
cp- to copy a file or directory
mv - to move a file or directory from one location to another.
rename - to rename files.(useful while renaming large group of files)


## Linux File Content Commands

head - to display the first 10 lines of a file
tail - to display the last 10 lines of a file
tac - to display the file content in reverse order(from the last line)(reverse of cat)
more -  to display screenful output at a time.(incase of large file)
less - more command cuts the output in the width of the terminal.

## Linux User Command

su - provides administrative access to another user.(allows Linux access
id - to display the user ID (UID) and group ID (GID).
useradd - to add or remove a user on a Linux server.
passwd -  to create and change the password for a user.
groupadd - to create a user group.


## Linux Filter Commands

cat - cat command is used to filter using the pipes.
cut - to select a specific column of a file.
grep - for searching the content from a file.
comm - to compare two files or streams.
sed - to edit files using regular expression(changes persist temporarily.. does not affect the actual file content)
tee - puts standard input on standard output and also write them into a file.
tr - to translate file content from lower case to upper case.
uniq - to form a sorted list(unique list.. no duplicates)
wc - to count lines, words, characters in files

od - to display the content of a file in different formats (hexadecimal, octal, and ASCII characters).
sort - sorts file content in alphabetical order
gzip - to truncate the file size(compressing tool - compresses the original file by compressed file having .gz extension)
gunzip - to decompress the file.

## Linux Utility Commands
find -  to find a particular file within a directory.(find -by type, by date, etc)(searches files in file systm)
locate - to search a file by file name.(searches files in file database)
date -  to display date, time, time zone, and more.
cal - to display the current month's calendar with the current date highlighted.
sleep - to hold the terminal by the specified amount of time.( By default, it takes time in seconds).
time - to display the time to execute a command.
zcat - to display the compressed files.
df - to display the disk space used in the file system.(output - number of used blocks, available blocks, and the mounted directory.)
mount -  to connect an external device file system to the system's file system.
exit - to exit from the current shell.( It takes a parameter as a number and exits the shell with a return of status number.)
clear - to clear the terminal screen.

## Linux Networking Commands
ip - to assign an IP address, initialize an interface, disable an interface.(updated version of the ipconfig command).
ssh - to create a remote connection through the ssh protocol.
mail - o send emails from the command line.
ping - to check the connectivity between two nodes, that is whether the server is connected.(full form - Packet Internet Groper)
host - to display the IP address for a given domain name and vice versa. It performs the DNS lookups for the DNS Query.

## Linux Users
whoami - about the system's username.
who - information about the users logged on to the system.
who am i - displays the information about the current user only.
w - users who are logged in and what are they doing.
id - user id, primary group id, and a list of groups that belongs to you.

# List of commands executed:

```
prarthana1305@Prarthana:~$ echo "User: $(whoami), Hostname: $(hostname)" && history | tail -n 50
User: prarthana1305, Hostname: Prarthana
  235  zcat marks.txt
  236  df
  237  ip
  238  mail -s "Hello World" prarthana130503@gmail.com
  239  sudo apt install mailutils
  240  mail -s "Hello World" prarthana130503@gmail.com
  241  sudo apt install mailutils
  242  ping javatpoint.com
  243  host javatpoint.com
  244  sudo apt install bind9-host
  245  whoami
  246  who
  247  who am i
  248  w
  249  id
  250  netstat
  251  hostname
  252  ssh
  253  ifconfig
  254  ping
  255  ping 0.0.0.0
  256  ls -l
  257  ls -a
  258  ls -F
  259  ls -lR
  260  ls -lH
  261  ls -lt
  262  head -n 2 marks.txt
  263  head -n 2 marksheet.txt
  264  head -n 2 gardecard.txt
  265  head -n 2 gradecard.txt
  266  mkdir subdir1/subdir2
  267  mkdir -p subdir1/subdir2
  268  rmdir java-file.txt
  269  rmdir java-file
  270  ls
  271  mv marks.txt subdir1
  272  cat > assignment.txt
  273  mv assignment.txt subdir1
  274  rmdir subdir1
  275  rmdir -rf subdir1
  276  rm -rf subdir1
  277  nano greetings.txt
  278  ls -l
  279  ls -l js-directory
  280  ls -ld js-directory
  281  echo "User: $(whoami), Hostname: $(hostname)" && history | tail -n 40
  282  echo "User: $(whoami), Hostname: $(hostname)" && history | head -n 40
```

```
prarthana1305@Prarthana:~$ echo "User: $(whoami), Hostname: $(hostname)" && history | tail -n 50
User: prarthana1305, Hostname: Prarthana
```