1) Write the commands to create the following directory hirarchy: -> DOS_Regdno -> DOSass1-> dir1

```
student@iteradmin-Vostro-3268:~$ mkdir DOS_2241013204
student@iteradmin-Vostro-3268:~$ cd DOS_2241013204/
student@iteradmin-Vostro-3268:~/DOS_2241013204$ mkdir DOSass1
student@iteradmin-Vostro-3268:~/DOS_2241013204$ cd DOSass1/
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1$ mkdir dir1
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1$ cd dir1/
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ pwd
/home/student/DOS_2241013204/DOSass1/dir1
```

2) Write the commands to create another directory with name dir2 in directory DOSass1 and make dir2 as the current working directory.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cd ..
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1$ mkdir dir2
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1$ cd dir2
```

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir2$ pwd
/home/student/DOS_2241013204/DOSass1/dir2
```

3) Write the command to delete the directory dir2, when DOS_Regdno will be the current working directory

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir2$ cd ..
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1$ cd ..
student@iteradmin-Vostro-3268:~/DOS_2241013204$ pwd
/home/student/DOS_2241013204
student@iteradmin-Vostro-3268:~/DOS_2241013204$ rmdir ./DOSass1/dir2/
student@iteradmin-Vostro-3268:~/DOS_2241013204$ ls
DOSass1
```

4) Write the command to create a file named as file1 using cat command inside dir1. Write your name, regdno, branch, semester and section in file1. Then display the content of the file.

```
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ cat > file1.txt
Name: Abhigyan Mohanta
Regd No. 2241013204
Branch: CSE
Sem: 5th
Sec: 29^C
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ cat file1.txt
Name: Abhigyan Mohanta
Regd No. 2241013204
Branch: CSE
Sem: 5th
Sem: Sth
```

5) Write the command to create a file named as file2 using cat command inside dir1. Write your semester wise SGPA in file2.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat > file2.txt
1st: 9.4
2nd: 9.2
3rd: 9.3
4th: 9.5
^C
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat file2.txt
1st: 9.4
2nd: 9.2
3rd: 9.3
4th: 9.2
4th: 9.2
4th: 9.5
```

6) Create a file named as file3 storing content of file1 merged with content of file2.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat file1.txt file2.txt > file3.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat file3.txt
Name: Abhigyan Mohanta
Regd No. 2241013204
Branch: CSE
Sem: 5th
1st: 9.4
2nd: 9.2
3rd: 9.3
4th: 9.5
```

7) Write the command to rename file2 as markinfo.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ mv file2.txt markinfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls
file1.txt file3.txt markinfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat markinfo.txt
1st: 9.4
2nd: 9.2
3rd: 9.3
4th: 9.5
```

8) Write the command to copy the content of file1 to reginfo

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cp file1.txt reginfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat reginfo.txt
Name: Abhigyan Mohanta
Regd No. 2241013204
Branch: CSE
Sem: 5th
```

9) Write the command to display the inode values of file1, markinfo, reginfo.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls -i file1.txt
27135394 file1.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls -i markinfo.txt
27135400 markinfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls -i reginfo.txt
27135412 reginfo.txt
```

10) Write the command to delete file1.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ rm file1.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls
file3.txt markinfo.txt reginfo.txt
```

11) Write the command to count the number of lines, words, characters in markinfo

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ wc -l markinfo.txt
4 markinfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ wc -w markinfo.txt
8 markinfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ wc -c markinfo.txt
36 markinfo.txt
```

12) Write the command to create a file named as Personalinfo inside dir1. Write your name, regdno, address in the file.

```
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ cat > PersonalInfo.txt
Name: Abhigyan Mohanta
Regd no: 2241013204
Address: Link Road, Ward no.15, Rairangpur, Mayurbhanj, Odisha. Pin: 757043
^C
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ cat PersonalInfo.txt
Name: Abhigyan Mohanta
Regd no: 2241013204
Address: Link Road, Ward no.15, Rairangpur, Mayurbhanj, Odisha. Pin: 757043
```

13) Write the command to display the content of markinfo in reverse order.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ tac markinfo.txt
4th: 9.5
3rd: 9.3
2nd: 9.2
1st: 9.4
```

14) Check the output of the following command: cmp reginfo personalinfo diff reginfo personalinfo

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cmp reginfo.txt PersonalInfo.txt
reginfo.txt PersonalInfo.txt differ: byte 29, line 2
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ diff reginfo.txt PersonalInfo.txt
2,4c2,3
< Regd No. 2241013204
< Branch: CSE
< Sem: 5th
---
> Regd no: 2241013204
> Address: Link Road, Ward no.15, Rairangpur, Mayurbhanj, Odisha. Pin: 757043
```

15) Write a command to count the number of files in the current working directory and display that number.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls -l | grep '^-' | wc -l 4
```

16) Write a command to include all the file names present in a current working directory in a file named as filelist without causing filelist to be included in the names.

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls >> filelist.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ cat filelist.txt
file3.txt
filelist.txt
markinfo.txt
PersonalInfo.txt
reginfo.txt
```

17) Write a command to give write permission to all the users of file reginfo.

```
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ chmod 222 reginfo.txt
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ ls -l
total 20
-rw-rw-r-- 1 student student 100 Sep 16 17:34 file3.txt
-rw-rw-r-- 1 student student 65 Sep 16 17:56 filelist.txt
-rw-rw-r-- 1 student student 36 Sep 16 17:29 markinfo.txt
-rw-rw-r-- 1 student student 19 Sep 16 17:47 PersonalInfo.txt
--w--w---- 1 student student 64 Sep 16 17:36 reginfo.txt
```

18) Write a command to discard write permission from group users group users of file reginfo.

```
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ chmod g-w reginfo.txt
student@iteradmin-Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ ls -l
total 20
-fw-rw-r-- 1 student student 100 Sep 16 17:34 file3.txt
-fw-rw-r-- 1 student student 65 Sep 16 17:56 filelist.txt
-rw-rw-r-- 1 student student 36 Sep 16 17:29 markinfo.txt
-fw-rw-r-- 1 student student 36 Sep 16 17:47 PersonalInfo.txt
-rw-rw-r-- 1 student student 119 Sep 16 17:36 reginfo.txt
-rw-r--rw- 1 student student 64 Sep 16 17:36 reginfo.txt
```

19) Write the command to set rwx permissions for all the users of file reginfo

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ chmod 777 reginfo.txt
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ ls -l
total 20
-rw-rw-r-- 1 student student 100 Sep 16 17:34 file3.txt
-rw-rw-r-- 1 student student 65 Sep 16 17:56 filelist.txt
-rw-rw-r-- 1 student student 36 Sep 16 17:29 markinfo.txt
-rw-rw-r-- 1 student student 119 Sep 16 17:47 PersonalInfo.txt
-rwxrwxrwx 1 student student 64 Sep 16 17:36 reginfo.txt
```

20) Differentiate between following commands: date; pwd date; pwd | wc -l (date; pwd) | wc -l

```
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ date; pwd
Monday 16 September 2024 06:04:22 PM IST
/home/student/DOS_2241013204/DOSass1/dir1
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ date; pwd | wc -l
Monday 16 September 2024 06:04:33 PM IST
1
student@iteradmin-Vostro-3268:~/DOS_2241013204/DOSass1/dir1$ (date; pwd) | wc -l
2
```

21) Interpret the output of the following commmands:

```
echo **
echo ***
echo '***
echo '***
echo \*'\*
echo \*/*
echo Don't do this echo "Don't do this" (Quotes of one kind protect quotes of other kind)
echo Hello # world
echo "Hello # world"
echo ' Hello # world'
echo date
echo 'date'
echo "date"
echo 'date'
```

```
tudent@iteradmin.Vostro-3268:-/DOS_2241013204/DOSass1/dir1$ echo *file3.txt filelist.txt markinfo.txt PersonalInfo.txt reginfo.txt student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo ***
file3.txt filelist.txt markinfo.txt PersonalInfo.txt reginfo.txt student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo '***
***
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo \***

***
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo \***

***
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo */*

*/*
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo Don't do this

> ^C
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo "Don't do this"

Don't do this
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo "Don't do this"

Don't do this
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo "Hello # world

Hello # World
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo 'Hello # World'

Hello # World
student@iteradmin.Vostro-3268:-/DOS_224103204/DOSass1/dir1$ echo 'date'

date
s
```