Assignment 1: Basic Commands in Unix Operating System.

1) Write the commands to create the following directory hirarchy:

-> DOS_Regdno ->DOSass1->dir1

```
aryan@Aryan: ~/DOS_224101!    ✕    +    ∨

aryan@Aryan:~$ mkdir -p DOS_2241019403/DOSass1/dir1
```

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

```
aryan@Aryan:~$ cd DOS_2241019403/DOSass1
aryan@Aryan:~/DOS_2241019403/DOSass1$ mkdir dir2
aryan@Aryan:~/DOS_2241019403/DOSass1$ cd dir2
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1$ rmdir dir2
```

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.

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat >file
Name-Aryan Sharma
Regd-2241019403
Sem-5th
Sec-29
Serial no -62
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat >file2
Sem1-8.3
Sem2-7.9
Sem3-7.5
Sem4-7.9
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat file file2 >file3
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat file3
Name-Aryan Sharma
Regd-2241019403
Sem-5th
Sec-29
Serial no -62
Sem1-8.3
Sem2-7.9
Sem3-7.5
Sem4-7.9
```

7) Write the command to rename file2 as markinfo.

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ mv file2 markinfo
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat markinfo
Sem1-8.3
Sem2-7.9
Sem3-7.5
Sem4-7.9
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cp file reginfo
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ ls -i
29561 file   29566 file3   29565 markinfo   29567 reginfo
```

10) Write the command to delete file1.

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ rm file
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ ls
file3  markinfo  reginfo
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ wc markinfo
 4  4 36 markinfo
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat >Personalinfo
Name- Aryan Sharma
Regd no-2241019403
Sec-29
Sem-5th
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ tac markinfo
Sem4-7.9
Sem3-7.5
Sem2-7.9
Sem1-8.3
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cmp reginfo Personalinfo
reginfo Personalinfo differ: byte 6, line 1
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ diff reginfo Personalinfo
1,3c1,2
< Name-Aryan Sharma
< Regd-2241019403
< Sem-5th
---
> Name- Aryan Sharma
> Regd no-2241019403
5c4
< Serial no -62
---
> Sem-5th
```

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ ls -1 | 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.

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ ls -1 | grep -v 'filelist'>filelist
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ cat filelist
Personalinfo
file3
markinfo
reginfo
```

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

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

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

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ chmod a+w reginfo
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ chmod g-w reginfo
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ chmod a+rwx reginfo
```


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

1. date; pwd
- **date : Displays the current system date and time.**
- **pwd : Displays the current working directory**

2. date; pwd | wc -l

- **date : Displays the current system date and time.**
- **pwd | wc -l :**
  - **- pwd displays the current working directory.**
  - **- wc -l counts the number of lines output by pwd .**

Output:
Monday, September 25, 2023 10:00:00 AM
1.
3. (date; pwd) | wc -l

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'

```
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo *
Personalinfo file3 filelist markinfo reginfo
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo ***
Personalinfo file3 filelist markinfo reginfo
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo '***'
***
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo \***
***
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo \*\*\*
***
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo */*
*/*
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo Don't do this
> dont do this
> don't do this
Dont do this
dont do this
dont do this
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo "Don't do this"
> dont do this
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo Hello # world
Hello
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo " Hello # world"
" Hello
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo ' Hello # world'
 Hello # world
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo date
date
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo 'date'
date
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo "date"
"date"
aryan@Aryan:~/DOS_2241019403/DOSass1/dir1$ echo `date`
Sun Sep 29 19:08:12 IST 2024
```