

## ASSIGNMENT - I

### TITLE :

Write a series of BASH shell commands for common system administration tasks, including file management, process control, disk usage monitoring, and system information retrieval.

NAME : Shinde Shubham Dnyandeve,      DIV : SY-B,      ROLL NO : 23107121

### PROGRAM :

#### 1) File Management :

```
shubham@ShubhsPC: ~  
shubham@ShubhsPC:~$ pwd  
/home/shubham  
shubham@ShubhsPC:~$ ls  
a.out      combine2.c  execlp.c  execv.c  execvp.c  subtract  
combine2   execl.c    execv     execvp   fork.c    subtract.c  
shubham@ShubhsPC:~$ touch file.txt  
shubham@ShubhsPC:~$ ls  
a.out      combine2.c  execlp.c  execv.c  execvp.c  fork.c    subtract.c  
combine2   execl.c    execv     execvp   file.txt  subtract  
shubham@ShubhsPC:~$ echo "Pune  
Raigad  
Ratnagiri  
Sangli  
Satara  
Sindhudurg  
Solapur  
Thane  
Wardha  
Washim  
Yavatmal" > file.txt  
shubham@ShubhsPC:~$ cat file.txt  
Pune  
Raigad  
Ratnagiri  
Sangli  
Satara  
Sindhudurg  
Solapur  
Thane  
Wardha  
Washim  
Yavatmal  
shubham@ShubhsPC:~$ mkdir dir  
shubham@ShubhsPC:~$ ls  
a.out      combine2.c  execl.c  execv     execvp     file.txt  subtract  
combine2   dir         execlp.c  execv.c  execvp.c  fork.c    subtract.c  
shubham@ShubhsPC:~$ cd dir  
shubham@ShubhsPC:~/dir$ cd ~  
shubham@ShubhsPC:~$ rmdir dir  
shubham@ShubhsPC:~$ touch file2.txt  
shubham@ShubhsPC:~$ ls
```

```

shubham@ShubhsPC:~$ ls
a.out      combine2.c  execlp.c  execl.c  execlp.c  file2.txt  subtract
combine2  execl.c    execlp.c  execl.c  execlp.c  file.txt   subtract.c
shubham@ShubhsPC:~$ cat file2.txt
shubham@ShubhsPC:~$ cp file.txt file2.txt
shubham@ShubhsPC:~$ cat file2.txt
Pune
Raigad
Ratnagiri
Sangli
Satara
Sindhudurg
Solapur
Thane
Wardha
Washim
Yavatmal
shubham@ShubhsPC:~$ head -n 5 file.txt
Pune
Raigad
Ratnagiri
Sangli
Satara
shubham@ShubhsPC:~$ tail -n 5 file.txt
Solapur
Thane
Wardha
Washim
Yavatmal
shubham@ShubhsPC:~$ mv file.txt sds.txt
shubham@ShubhsPC:~$ ls
a.out      combine2.c  execlp.c  execl.c  execlp.c  fork.c     subtract
combine2  execl.c    execlp.c  execl.c  execlp.c  file2.txt  sds.txt   subtract.c
shubham@ShubhsPC:~$ rm file2.txt
shubham@ShubhsPC:~$ ls
a.out      combine2.c  execlp.c  execl.c  execlp.c  sds.txt    subtract.c
combine2  execl.c    execlp.c  execl.c  execlp.c  fork.c     subtract
shubham@ShubhsPC:~$ |

```

## 2)Process Control :

```

shubham@ShubhsPC: ~
shubham@ShubhsPC:~$ ps
  PID TTY          TIME CMD
  384 pts/0        00:00:00 bash
  449 pts/0        00:00:00 ps
shubham@ShubhsPC:~$ |

```

### 3)Disk usage Monitoring :

```
shubham@ShubhsPC: ~$ df
Filesystem      1K-blocks      Used Available  Use% Mounted on
none            3977228         0   3977228    0% /usr/lib/modules/5.15.167.4-microsoft-standard-WSL2
none            3977228         4   3977224    1% /mnt/wsl
drivers         212435964 65430984 147004980   31% /usr/lib/wsl/drivers
/dev/sdc        1055762868 2477268 999582128    1% /
none            3977228         76   3977152    1% /mnt/wslg
none            3977228         0   3977228    0% /usr/lib/wsl/lib
rootfs          3973816      2208   3971608    1% /init
none            3977228         488   3976740    1% /run
none            3977228         0   3977228    0% /run/lock
none            3977228         0   3977228    0% /run/shm
tmpfs           4096         0     4096    0% /sys/fs/cgroup
none            3977228         76   3977152    1% /mnt/wslg/versions.txt
none            3977228         76   3977152    1% /mnt/wslg/doc
C:\             212435964 65430984 147004980   31% /mnt/c
D:\             153599996 24031900 129568096   16% /mnt/d
E:\             133118972  109832 133009140    1% /mnt/e
tmpfs           795444         16   795428    1% /run/user/1000
shubham@ShubhsPC:~$ lsblk
NAME
MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda   8:0    0 388.4M  1 disk
sdb   8:16   0    2G    0 disk [SWAP]
sdc   8:32   0    1T    0 disk /mnt/wslg/distro
/
```

### 4)System Information Retrivial :

```
shubham@ShubhsPC: ~$ uname
Linux
shubham@ShubhsPC:~$ hostname
ShubhsPC
shubham@ShubhsPC:~$ free
              total        used        free      shared  buff/cache   available
Mem:           7954456      913488      7091752         3036       163388       7040968
Swap:          2097152           0      2097152
shubham@ShubhsPC:~$ uptime
 17:15:55 up 22 min,  1 user,  load average: 0.00, 0.00, 0.00
shubham@ShubhsPC:~$
```