

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.

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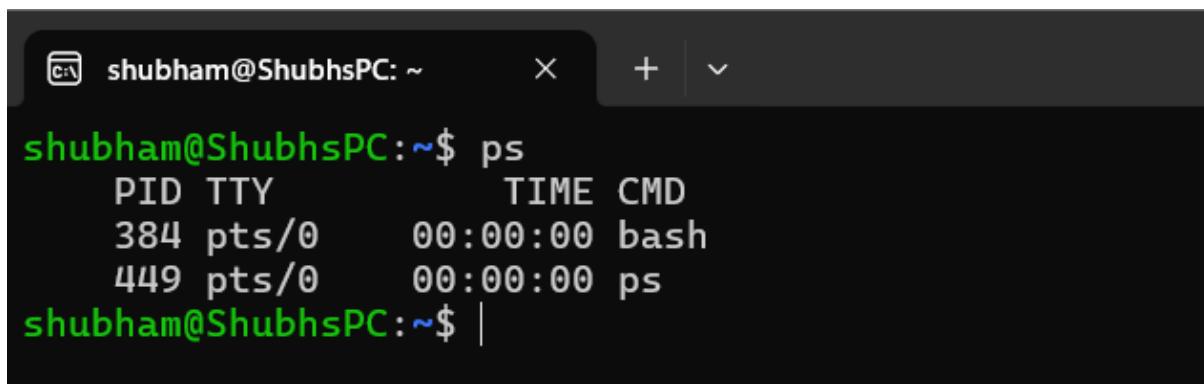
PROGRAM :

1) File Management :

```
shubham@ShubhsPC:~$ pwd
/home/shubham
shubham@ShubhsPC:~$ ls
a.out    combine2.c  execl.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  execl.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        execl.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  execv.c  execvp.c  file2.txt  subtract
combine2  execl.c   execv   execvp   file.txt   fork.c    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  execv.c  execvp.c  fork.c    subtract
combine2  execl.c   execv   execvp   file2.txt  sds.txt  subtract.c
shubham@ShubhsPC:~$ rm file2.txt
shubham@ShubhsPC:~$ ls
a.out    combine2.c  execlp.c  execv.c  execvp.c  sds.txt    subtract.c
combine2  execl.c   execv   execvp   fork.c    subtract
shubham@ShubhsPC:~$ |
```

2)Process Control :



A screenshot of a terminal window titled "shubham@ShubhsPC: ~". The window shows the output of the "ps" command:

```
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
                                /
shubham@ShubhsPC:~$ |
```

4)System Information Retrieval :

```
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:~$ |
```