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Roll No. : 2021A1R047

Subject : Operating Systems Lab

Subject Code : COM-312

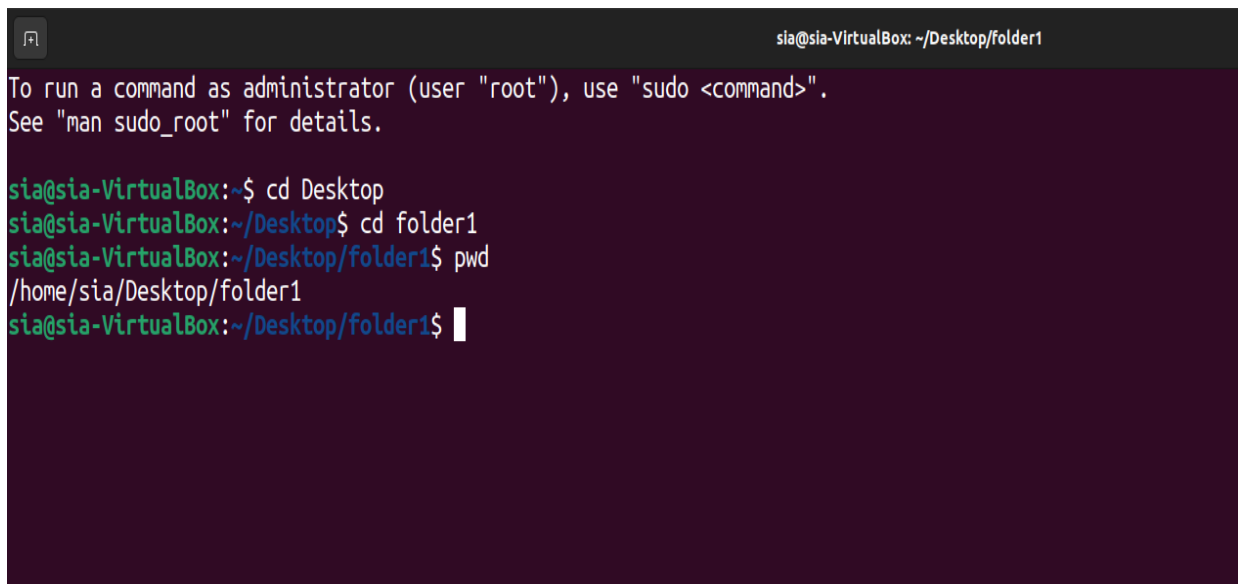
Semester : 3rd (IInd Year)

Branch : CSE

Section : A1, G2

Command 1

pwd : Displays present working directory

A terminal window with a dark background. The title bar shows a window icon and the text 'sia@sia-VirtualBox: ~/Desktop/folder1'. The terminal content includes a message about running commands as administrator, followed by a series of commands and their outputs: 'cd Desktop', 'cd folder1', and 'pwd' which outputs '/home/sia/Desktop/folder1'.

```
sia@sia-VirtualBox: ~/Desktop/folder1
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

sia@sia-VirtualBox:~$ cd Desktop
sia@sia-VirtualBox:~/Desktop$ cd folder1
sia@sia-VirtualBox:~/Desktop/folder1$ pwd
/home/sia/Desktop/folder1
sia@sia-VirtualBox:~/Desktop/folder1$
```

cd : change directory

Command 2

mkdir : Make directory

syntax : mkdir <directory>

Variants :

1. mkdir -v : Displays a message for every directory created.
2. mkdir -version : Displays the version number.
3. mkdir -n : Doesn't allow to copy the source file to destination file.
4. mkdir -p : Creates Sub-directories of a directory.
5. mkdir -b : Creates Back-up files.

```

sia@sia-VirtualBox: ~/Desktop/folder1
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

sia@sia-VirtualBox:~$ cd Desktop
sia@sia-VirtualBox:~/Desktop$ cd folder1
sia@sia-VirtualBox:~/Desktop/folder1$ pwd
/home/sia/Desktop/folder1
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt first fl6.txt fl7.txt fl9.txt new.txt
sia@sia-VirtualBox:~/Desktop/folder1$ rm first new.txt
rm: cannot remove 'first': Is a directory
rm: cannot remove 'new.txt': Is a directory
sia@sia-VirtualBox:~/Desktop/folder1$ rm -r first
sia@sia-VirtualBox:~/Desktop/folder1$ rm -r new.txt
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt
sia@sia-VirtualBox:~/Desktop/folder1$ mkdir -v folder2
mkdir: created directory 'folder2'
sia@sia-VirtualBox:~/Desktop/folder1$ rm -r folder2
sia@sia-VirtualBox:~/Desktop/folder1$ mkdir -v folder2 folder3
mkdir: created directory 'folder2'
mkdir: created directory 'folder3'
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt folder2 folder3
sia@sia-VirtualBox:~/Desktop/folder1$ mkdir -p folder0/folder4/folder3
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt folder0 folder2 folder3
sia@sia-VirtualBox:~/Desktop/folder1$
```

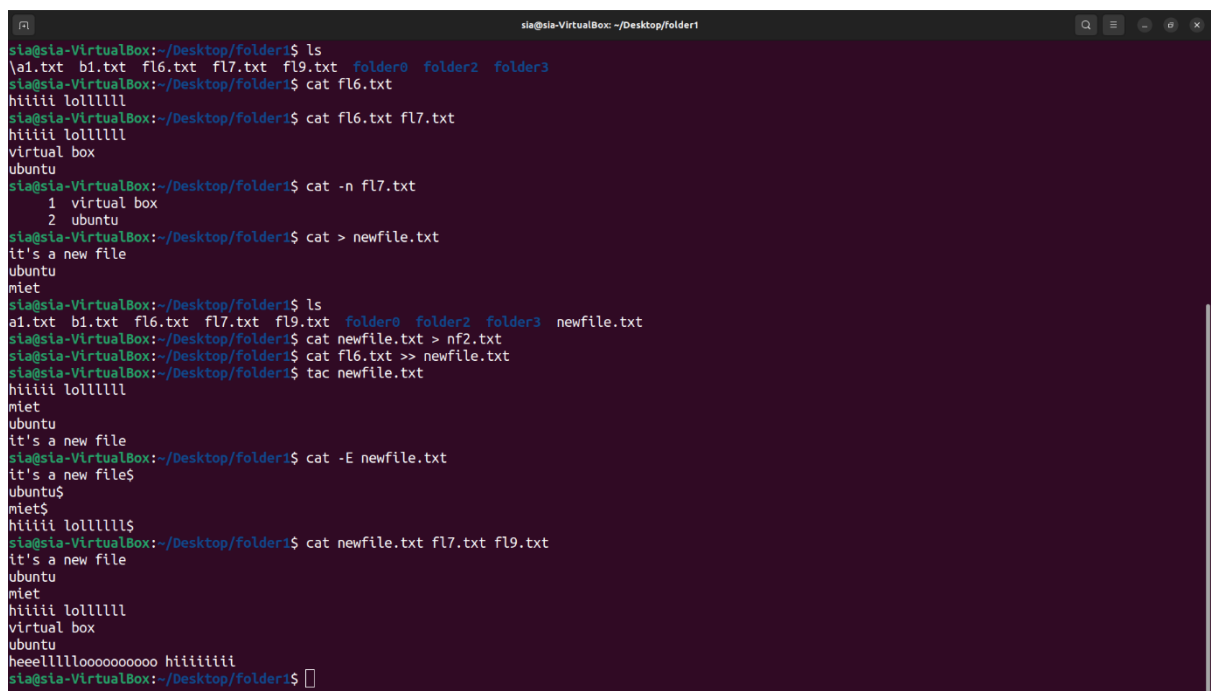
Command 3

cat : Reads data from the files and gives their content as output.

Syntax : cat filename.txt

Variants :

1. cat -n a.txt : Displays line number in front of each line.
2. cat -e a.txt : Displays a '\$' at the end of every line.
3. cat -t a.txt : Puts '^I' wherever there are tabs.
4. cat > b.txt : Creates a new file.
5. cat a.txt > b.txt : To copy content from older file to new non existing file.
6. cat a.txt >> b.txt : Append the contents of one file to the end of another file.



```
sia@sia-VirtualBox: ~/Desktop/folder1
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt folder0 folder2 folder3
sia@sia-VirtualBox:~/Desktop/folder1$ cat fl6.txt
hiiii lollllll
sia@sia-VirtualBox:~/Desktop/folder1$ cat fl6.txt fl7.txt
hiiii lollllll
virtual box
ubuntu
sia@sia-VirtualBox:~/Desktop/folder1$ cat -n fl7.txt
 1 virtual box
 2 ubuntu
sia@sia-VirtualBox:~/Desktop/folder1$ cat > newfile.txt
it's a new file
ubuntu
miet
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt folder0 folder2 folder3 newfile.txt
sia@sia-VirtualBox:~/Desktop/folder1$ cat newfile.txt > nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$ cat fl6.txt >> newfile.txt
sia@sia-VirtualBox:~/Desktop/folder1$ tac newfile.txt
hiiii lollllll
miet
ubuntu
it's a new file
sia@sia-VirtualBox:~/Desktop/folder1$ cat -E newfile.txt
it's a new file$
ubuntu$
miet$
hiiii lollllll$
sia@sia-VirtualBox:~/Desktop/folder1$ cat newfile.txt fl7.txt fl9.txt
it's a new file
ubuntu
miet
hiiii lollllll
virtual box
ubuntu
heeeellllloooooooooo hiiiiiii
sia@sia-VirtualBox:~/Desktop/folder1$
```

Command 4

rm : Used to remove file or directory.

Syntax : rm filename.txt

Variants :

1. rmdir : To remove empty directories.
2. rm a.txt b.txt : To remove single or multiple files.
3. rm -i : (Interactive deletion) Asks user for confirmation before removing each file.
4. rm -r : To remove directories having files.
5. rm *.ext : Removes all files of same extension in a folder.

```
sia@sia-VirtualBox:~/Desktop/folder1$ ls
a1.txt b1.txt fl6.txt fl7.txt fl9.txt folder0 folder2 folder3 newfile.txt nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$ rm a1.txt b1.txt
sia@sia-VirtualBox:~/Desktop/folder1$ ls
fl6.txt fl7.txt fl9.txt folder0 folder2 folder3 newfile.txt nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$ rm -i fl6.txt
rm: remove regular file 'fl6.txt'? y
sia@sia-VirtualBox:~/Desktop/folder1$ ls
fl7.txt fl9.txt folder0 folder2 folder3 newfile.txt nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$ cd folder2
sia@sia-VirtualBox:~/Desktop/folder1/folder2$ touch nf.txt
sia@sia-VirtualBox:~/Desktop/folder1/folder2$ touch nf3.txt
sia@sia-VirtualBox:~/Desktop/folder1/folder2$ cd
sia@sia-VirtualBox:~/Desktop$ cd Desktop
sia@sia-VirtualBox:~/Desktop$ cd folder1
sia@sia-VirtualBox:~/Desktop/folder1$ rm -r folder2
sia@sia-VirtualBox:~/Desktop/folder1$ ls
fl7.txt fl9.txt folder0 folder3 newfile.txt nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$ rmdir folder3
sia@sia-VirtualBox:~/Desktop/folder1$ ls
fl7.txt fl9.txt folder0 newfile.txt nf2.txt
sia@sia-VirtualBox:~/Desktop/folder1$
```