

## Part 1: Outputs of Commands

### 1. pwd

The `pwd` command displays the present working directory.

```
$ pwd
/home/user
```

### 2. cd

The `cd` command is used to change directories.

```
$ cd Documents/
$ pwd
/home/user/Documents
```

### 3. ls

The `ls` command lists the files and directories in the current directory.

```
$ ls
file1.txt  file2.txt  Documents  Downloads
```

### 4. mkdir

The `mkdir` command is used to create a new directory.

```
$ mkdir NewFolder
$ ls
NewFolder  file1.txt  file2.txt
```

### 5. rm

The `rm` command is used to remove a file.

```
$ rm file1.txt
$ ls
file2.txt  NewFolder
```

### 6. touch

The touch command creates a new empty file.

```
$ touch newfile.txt
$ ls
newfile.txt  file2.txt  NewFolder
```

## **7. hostname**

The hostname command displays the system's hostname.

```
$ hostname
my-laptop
```

## **8. cat**

The cat command is used to view the contents of a file.

```
$ cat newfile.txt
Hello, this is a test file.
```

## **9. chmod**

The chmod command changes file permissions.

```
$ chmod 777 newfile.txt
```

## **10. echo**

The echo command prints a message to the terminal.

```
$ echo "Hello, World!"
Hello, World!
```

## **11. grep**

The grep command searches for a pattern in a file.

```
$ grep "Hello" newfile.txt
Hello, this is a test file.
```

## **12. fgrep**

The `fgrep` command searches for a fixed string in a file.

```
$ fgrep "Hello" newfile.txt
Hello, this is a test file.
```

### **13. mv**

The `mv` command moves or renames a file.

```
$ mv newfile.txt oldfile.txt
$ ls
oldfile.txt
```

### **14. cp**

The `cp` command copies a file.

```
$ cp oldfile.txt copyfile.txt
$ ls
oldfile.txt  copyfile.txt
```

### **15. more**

The `more` command displays file content page by page.

```
$ more largefile.txt
```

### **16. less**

The `less` command is similar to `more`, allowing backward navigation.

```
$ less largefile.txt
```

### **17. wc**

The `wc` command counts words, lines, and characters in a file.

```
$ wc oldfile.txt
5  10  50 oldfile.txt
```

### **18. awk**

The `awk` command is used for pattern scanning and processing.

```
$ awk '{print $1}' oldfile.txt
```

### **19. sed**

The `sed` command is used for stream editing.

```
$ sed 's/Hello/Hi/' oldfile.txt
```

### **20. tail**

The `tail` command shows the last lines of a file.

```
$ tail -n 5 oldfile.txt
```

---

## **Part 2: Answering Questions with Commands**

### **1. Navigate to a Specific Directory:**

```
cd /path/to/directory
```

### **2. See detailed information about files and directories using `ls`:**

```
ls -l
```

### **3. Create multiple directories using `mkdir`:**

```
mkdir dir1 dir2 dir3
```

### **4. Remove multiple files at once:**

```
rm file1.txt file2.txt file3.txt
```

### **5. Delete directories using `rm`:**

```
rm -r directory_name
```

#### **6. Copy files and directories:**

```
cp file1.txt /destination/path/  
cp -r directory_name /destination/path/
```

#### **7. Rename a file using mv:**

```
mv oldname.txt newname.txt
```

#### **8. Move multiple files using mv:**

```
mv file1.txt file2.txt /destination/path/
```

#### **9. Create multiple empty files using touch:**

```
touch file1 file2 file3
```

#### **10. View content of multiple files:**

```
cat file1.txt file2.txt
```

#### **11. Create a file and add content using cat:**

```
cat > newfile.txt  
Hello, this is new content.  
(Ctrl+D to save)
```

#### **12. Append contents of one file to another:**

```
cat file1.txt >> file2.txt
```

### **13.View large files with cat and paging:**

```
cat largefile.txt | less
```

### **14.Merge multiple files using cat:**

```
cat file1.txt file2.txt > merged.txt
```

### **15.Append to an existing file using cat:**

```
Cat >> existingfile.txt  
Additional content here.  
(Ctrl+D to save)
```

### **16.Explanation of chmod commands:**

- `chmod 777` – Gives full permissions (read, write, execute to all users).
- `chmod 755` – Owner has full permissions, others have read and execute.
- `chmod +x` – Adds execute permission to a file.

### **17.Find the number of lines matching a pattern:**

```
grep -c "pattern" filename.txt
```

### **18.Display files containing a specific string:**

```
grep -l "pattern" *.txt
```

### **19.Show line numbers of matched lines:**

```
grep -n "pattern" filename.txt
```

**20.Match lines starting with a string:**

```
grep "^pattern" filename.txt
```

**21.Sort files in descending order:**

```
sort -r filename.txt
```

**22.Sort a file based on a specific column:**

```
sort -k 2 filename.txt
```

---

PRADUMAN PRAJAPATI 24/4096