

Ex.No:2a

**Basic Commands in UNIX**

Date :

**Aim:**

To study and execute UNIX commands.

**UNIX Commands****1. Cat Command**

It is used to create a file, display the contents of a file and concatenating the files.

<b>\$cat &gt; filename</b>	<b>/for create</b>
<b>\$cat filename</b>	<b>/for display</b>
<b>\$cat file1 file2 &gt;file3</b>	<b>/for concatenate</b>

**2. Date Command**

It is used to display the current date, time, month and year.

<b>\$date +%d</b>	<b>/display date</b>
<b>\$date +%m</b>	<b>/display month</b>
<b>\$date +%h</b>	<b>/display month in words</b>
<b>\$date +%y</b>	<b>/display year</b>
<b>\$date +%R</b>	<b>/display the time with hour and mins</b>
<b>\$date +%T</b>	<b>/display time with hour,mins and sec</b>

**1. Calendar Command**

It is used to display the calendar of the given month and year.

<b>\$cal year</b>	<b>/display the year calendar</b>
<b>\$cal month year</b>	<b>/display the calendar of given month</b>

**2. Who / who am i Command**

It is used to display the data about all the users, who are currently logged into the system.

<b>\$who</b>	<b>/display all users</b>
<b>\$who am I</b>	<b>/display about user</b>

**3. Man command**

It is used to display the description and usage of particular command.

<b>\$man command name</b>	<b>/display the description of the cmd</b>
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**4. Head Command**

It is used to display the text from top of the file content to mentioned line.

<b>\$head – (option) filename</b>	<b>/ display text from top</b>
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**5. Tail command**

It is used to display the text from bottom of the file content to mentioned line.

**\$tail – (option) filename / display text from bottom**

**6. Wc Command**

It is used to count the number of lines, words and characters in the given file.

**\$wc filename /display no of lines, words and characters**

**7. Copy Command**

It is used to copy the content from one file to another file.

**\$cp source destination /copy content from source to destination.**

**8. Move Command**

It is used to rename the file.

**\$mv filename1 filename2 /for renaming**

**9. Compare Command**

It is used to compare two sorted files line by line.

**\$cmp file1 file2 /to compare file1& 2**

**10. Echo Command**

It is used to display whatever **message** we want to display on the screen.

**\$echo message /display the given msg**

**11. Read Command**

It is used to get the user input from keyboard.

**\$read variable name /get input from keyboard**

**12. Write Command**

It is used to send message to any logged in users. It's a two way communications.

**\$write username /send msg**

**13. Link Command**

It is used to link the content from one file to another file. It's same as copy command

**\$ln source destination**

**Or**

**\$link file1 file2 /Link the two files**

**14. Directory Commands**

It is used to making, changing and removing directories.

**\$mkdir dirname /to create directory**

<b>\$cd dirname</b>	<b>/to change working directory</b>
<b>\$rmdir dirname</b>	<b>/to remove the directory</b>
<b>\$cd ..</b>	<b>/to close the working directory</b>

### 15. List Command

It is used to display list of files in the current working directory.

**\$ls -(option)**

**Options  
entries  
format.  
order  
order**

**a- List all directory**

**l- List files in long**

**r- List files in reverse**

**t- List files in recently used**

**s- List no of blocks(memory) used by the file**

### 16. Remove Command

It is used to remove files from a directory.

**\$rm filename**

**Or**

**\$rm -(option) filename      /remove the file**

**Options**

**i- Ask user whether he wants to delete the file or not**

**r- Delete entries / entire content of the file recursively**

**f- Forcing to delete**

### 17. Pwd Command

It is used to display current working directory.

**\$pwd                      /display current directory**

### 18. Print Command

It is used to print the content of file.

**\$lp filename              /print the file**

### 19. Sort Command

It is used to sort the content in the file.

**\$sort filename              /sort the content**

### 20. Tty Command

It is used to know the terminal name that we are using.

**\$tty                      /display the terminal name**

### 21. Bc Command

It is used as an online calculator.

**\$bc                      /open an online calculator**

### 22. Message Command

It is used to avoid message from other users.

**\$mesg**                      **/to avoid the msg**

### 23. Mail Command

It is used as a simple email utility available on UNIX system

**\$mail username**                      **/sends mail**

### 24. Wall Command

It is used to send message to all users, those who are currently logged in.

**\$wall message**                      **/send msg to all users**

### 25. News Command

It is used to permit users to read messages published by the system administrator.

**\$news**                      **/allow to read admin msg.**

### 26. Grep Command (Global Regular Expression and Print)

It is used to search and print specified patterns from a file.

**\$grep text filename**                      **/search and print given text from file**

### 27. Cut Command

It is used to select specified field from a line of text.

**\$cut -c(option) filename**                      **/cut a text**

### 28. Paste Command

It is used to paste back the cut characters.

**\$paste filename**                      **/paste back the text**

### 29. Common Command

It is used to compare two sorted files and compares each line of the first file with its corresponding line in the second file.

**\$comm file1 file2**                      **/to compare the files**

### 30. Difference Command

It is used to display file differences.

**\$diff file1 file2**                      **/find the difference from the two identical files**

### 31. Finger Command

It is used to gather and display the information about users, which includes login name, realname, home directory etc...

**\$finger username**                      **/display user details.**

### 32. Password Command

It is used to change the password.



**\$passwd****/to change password****33. NI Command**

It is used to add line number to file content.

**\$nl filename****/add no to the file content****34. Which Command**

It is used to report the path to the command or the shell alias in use

**\$which****/to display the path****37. Clear Command**

It is used to clear the screen.

**\$tput clear****/to clear the screen****38. Reply Command**

It is used to send reply to the specified user.

**\$reply username****/to send reply****39. More Command**

It is used to scroll your screen when your file content is too large.

**\$more filename****/to scroll the screen****40. Compress Command**

It is used to compress the file and save it as file.z.

**\$compress filename****/to compress****Output:****FILE COMMANDS****1. Cat Command**

```
[examuser1@linux ~]$ cat > file1 hi
```

```
Welcome
```

```
This is my first unix file
```

```
Thank You
```

```
[examuser1@linux ~]$ cat > file2
```

```
This is my second File
```

```
Thank You
```

```
[examuser1@linux ~]$ cat file1
```

```
hi
```

```
Welcome
```

```
This is my first unix file
```

```
Thank You
```

```
[examuser1@linux ~]$ cat file2  
This is my second File  
Thank You
```

```
[examuser1@linux ~]$ cat file1 file2 > file3
```

```
[examuser1@linux ~]$ cat file3  
hi  
Welcome  
This is my first unix file  
Thank You  
This is my second File  
Thank You
```

## 2.Copy Command

```
[examuser1@linux ~]$ cp file1 file4
```

```
[examuser1@linux ~]$ cat file4  
hi  
Welcome  
This is my first unix file  
Thank You
```

## 3.Move Command

```
[examuser1@linux ~]$ mv file4 file5
```

```
[examuser1@linux ~]$ cat file5  
hi  
Welcome  
This is my first unix file  
Thank You
```

## 4.Remove Command

```
[examuser1@linux ~]$ rm file5  
[examuser1@linux ~]$ cat file5  
cat: file5: No such file or directory
```

## 5.WC Command

```
[examuser1@linux ~]$ wc file3  
6 17 81 file3
```

## WORKING WITH DIRECTORIES

### 6. Creating A Directory

```
[examuser1@linux ~]$ mkdir unix
```

### 7. Changing the working Directory

```
[examuser1@linux ~]$ cd unix
```

### 8. Current working Directory

```
[exam1@redhat unix]$ pwd  
/home/exam1/unix
```

```
[exam1@redhat unix]$ cd ..
```

### 9. The Path

```
[examuser1@linux ~]$ echo $HOME  
/home/exam1
```

### 10. Moving files within directories

```
[examuser1@linux ~]$ mv file4 unix  
mv: cannot stat `file4': No such file or directory
```

```
[examuser1@linux ~]$ cat > file6  
hello unix  
world
```

```
[examuser1@linux ~]$ mv file6 unix
```

```
[examuser1@linux ~]$ cd unix
```

```
[exam1@redhat unix]$ cat file6  
hello unix  
world
```

## 11. Removing Directory

```
[examuser1@linux ~]$ cd unix [exam1@redhat
unix]$ rm file6 [exam1@redhat unix]$ cd ..
[examuser1@linux ~]$ rmdir unix
```

## CALENDAR AND DATE COMMANDS

## 12. Calendar command - Year

```
[examuser1@linux ~]$ cal 2010
```

2010

January							February							March							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
					1	2		1	2	3	4	5	6		1	2	3	4	5	6	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27	
24	25	26	27	28	29	30								28	29	30	31				
31																					
April							May							June							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
					1	2							1		1	2	3	4	5		
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30				
							30	31													
July							August							September							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
					1	2	1	2	3	4	5	6	7					1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18	
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25	
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30			
October							November							December							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
					1	2		1	2	3	4	5	6		1	2	3	4			
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	31	



## 13. Calendar command – Month of the Year

```
[examuser1@linux ~]$ cal 5 2012
```

```
May 2012
Su Mo Tu We Th Fr Sa
      1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31
```

## 14. Date Commands

```
[examuser1@linux ~]$ date
Tue Jan 1 00:26:15 IST 2002
[examuser1@linux ~]$ date +%d
01
[examuser1@linux ~]$ date +%m
01
[examuser1@linux ~]$ date +%h
Jan
[examuser1@linux ~]$ date +%y
02
[examuser1@linux ~]$ date +%R
00:26
[examuser1@linux ~]$ date +%T
00:27:03
```

## PIPES

## 15. Pipes in who command

```
[examuser1@linux ~]$ who | wc -l
1
```

## 16. Longway pipeline

```
[examuser1@linux ~]$ ls | sort | wc -l
5
```

## 17. Capturing output while using pipes : tee

```
[examuser1@linux ~]$ cat file3|wc|tee file4
6  17  81
```

```
[examuser1@linux ~]$ cat file4
6  17  81
```

## OTHER BASIC COMMANDS

### 18. Who

```
[examuser1@linux ~]$ who
exam1 pts/1 Jan 1 00:02 (10.0.5.18)
```

### 19.who am i Command

```
[examuser1@linux ~]$ who am I
exam1 pts/1 Jan 1 00:02 (10.0.5.18)
```

### 20.Man command

```
[examuser1@linux ~]$ man cat
man cat
CAT(1)          FSF          CAT(1)
NAME
```

cat - concatenate files and print on the standard output

#### SYNOPSIS

cat [OPTION] [FILE]...

#### DESCRIPTION

Concatenate FILE(s), or standard input, to standard output.

-A, --show-all  
equivalent to -vET

-b, --number-nonblank  
number nonblank output lines

-e equivalent to -vE

-E, --show-ends  
display \$ at end of each line

-n, --number  
number all output lines

### 21.List Command

```
[examuser1@linux ~]$ ls -t
postfix.l file7 file4 file3 file2 file1 new
```

## 22.Print Command

```
[examuser1@linux ~]$ lp file3 lp:
error - scheduler not responding!
```

## 23.Sort Command

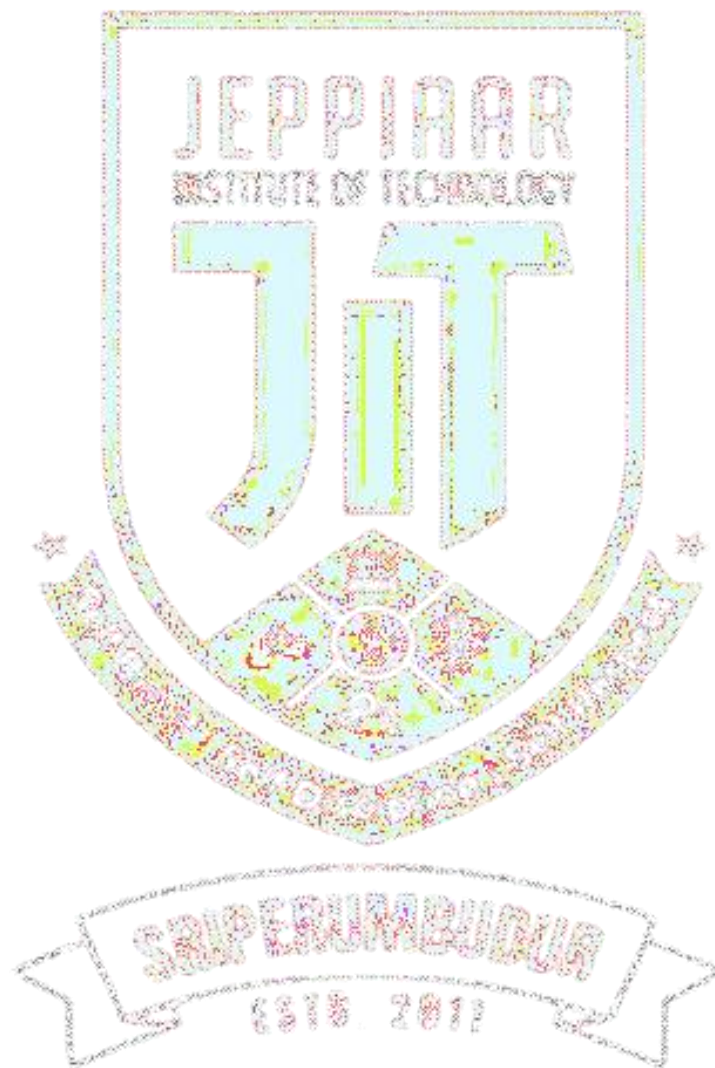
```
[examuser1@linux ~]$ sort file3
hi
Thank You
Thank You
This is my first unix file
This is my second File
Welcome
```

## 24.Password Command

```
[examuser1@linux ~]$ passwd
Changing password for user exam1.
Changing password for exam1
(current) UNIX password:
You must wait longer to change your password
passwd: Authentication token manipulation error
```

## 25. Which Command

```
[examuser1@linux ~]$ which
Usage: /usr/bin/which [options] [--] programname [...]
Options: --version, -[vV] Print version and exit successfully.
--help,      Print this help and exit successfully.
--skip-dot   Skip directories in PATH that start with a dot.
--skip-tilde Skip directories in PATH that start with a tilde.
--show-dot   Don't expand a dot to current directory in output.
--show-tilde Output a tilde for HOME directory for non-root.
--tty-only   Stop processing options on the right if not on tty.
--all, -a    Print all matches in PATH, not just the first
-i Read list of aliases from stdin.
--skip-alias Ignore option --read-alias; don't read stdin.
--read-functions Read shell functions from stdin.
--skip-functions Ignore option --read-functions; don't read stdin.
```

**Result:**

Thus the basic UNIX commands have been studied and executed.