



<b>Subject:</b>	<b>Unix Lab(SE ITL402)</b>		
<b>Class:</b>	<b>SE IT / Semester – IV (CBCGS) / Academic year: 2017-18</b>		
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<b>Roll No:</b>	<b>28</b>	<b>Date of performance (DOP) :</b>	
<b>Assignment/Experiment No:</b>	<b>02</b>	<b>Date of checking (DOC) :</b>	
<b>Title:</b> To Study and implement UNIX general purpose commands			
<b>Marks:</b>		<b>Teacher's Signature:</b>	

**1. Aim:** To study and implement UNIX general purpose utility command.

**2. Prerequisites:**

C Programming Language and Operating System

**3. Hardware Requirements:**

- PC with minimum 2GB RAM

**4. Software Requirements:**

- Fedora installed.

**5. Learning Objectives:**

To introduce basic UNIX general purpose commands.

**6.Course Objectives Applicable: LO1**

**7. Program Outcomes Applicable: PO1**

**8. Program Education Objectives Applicable: PEO1**

## 9. Theory:

*List of commands:*

*1.date*

*Description: It shows current date and time.*

*Syntax: date*

*Output:*

*[students@localhost ~]\$ date*

*Thu Jan 11 11:40:17 IST 2018*

*2.calender*

*Description:Shows calender.*

*Syntax: cal*

*OUTPUT:*

*[students@localhost ~]\$ cal*

*January 2018*

*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*

*3.calender*

*Description:Shows calender.*

*Syntax: cal moth\_number year*

*OUTPUT:*

*[students@localhost ~]\$ cal 9 1998*

*September 1998*

*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*

#### 4.echo

*Description: Prints String*

*Syntax: echo "string"*

*OUTPUT:*

```
[students@localhost ~]$ echo "Jawwad"
```

Jawwad

#### 5.calculator

*Description: Single math operation*

*Syntax: bc*

*OUTPUT:*

```
[students@localhost ~]$ bc
```

bc 1.06.95

10+2

12

4\*5

20

#### 6.calculator

*Description: Multiple math operations*

*Syntax: bc*

*OUTPUT:*

```
[students@localhost ~]$ bc
```

bc 1.06.95

4\*5;2+3;9/3

20

5

3

#### 7.who

*Description: Show who is logged in*

*syntax: who*

*OUTPUT:*

```
[students@localhost ~]$ who
```

students tty2 2018-01-11 11:34 (:0)

### 8.whoami

Description: Shows who logged in

Syntax: whoami

OUTPUT:

```
[students@localhost ~]$ whoami
students
```

### 9.ls

Description: It shows directory

Syntax: ls

OUTPUT:

```
[students@localhost ~]$ ls
ab      demo    FAMT.doc  mongodb-linux-x86_64-3.4.7  OS.txt    p5.sh      receive.py  sonu.txt    Templates
ABC     demo.bin FAMTOS    mongodb-linux-x86_64-3.4.7.tgz  pl_client.c  pass-students.awk  report.awk  studentd.marks.txt  test
abc.txt Desktop  fedora26.pem  Music      p1.sh      Pictures    send.py     student-marks.awk  test1
add.sh  Documents ham1.txt     new.jpg    p2.sh      present.awk  shilpa     student_marks.txt  test.txt
anki.txt Downloads ham.txt      newone     p3.sh      prog.sh     shilpa.odt  student-marks-utl.txt  Videos
check.awk failed.awk mongodb      ost.txt    p4.sh      Public      shilpa.txt  students-marks.txt
```

### 10.clear

Description: It clears the screen

Syntax: clear

OUTPUT:

```
File Edit View Search Terminal Help
[students@localhost ~]$
```

### 11.make directory

Description: Creates new directory

Syntax: mkdir folder\_name

OUTPUT:

```
[students@localhost ~]$ mkdir FAMT
```

```
[students@localhost ~]$ mkdir FMT
[students@localhost ~]$ ls
ab Desktop ham1.txt newone p5.sh send.py student-marks-utl.txt
ABC Documents ham.txt ost.txt pass-students.awk shilpa students-marks.txt
abc.txt Downloads Jawwad 05.txt Pictures present.awk shilpa.odt Templates
add.sh failed.awk mongod sonu.txt prog.sh studentd.marks.txt test
anki.txt FMT mongod-linux-x86_64-3.4.7 p1.sh Public student-marks.awk test1
check.awk FMT.doc mongod-linux-x86_64-3.4.7.tgz p2.sh receive.py student_marks.txt test.txt
demo demo bin fedora26.pem new.jpg p3.sh report.awk Videos
demo.bin fedora26.pem new.jpg p4.sh
```

```
[students@localhost ~]$
```

## 12.change directory

*Description: Changes the directory*

*Syntax: cd foldername*

*OUTPUT:*

```
[students@localhost ~]$ cd FMT
```

```
[students@localhost FMT]$
```

## 13.create a file

*Description: Creating file*

*Syntax: cat>filename.extension*

*OUTPUT:*

```
[students@localhost ~]$ cat>jk.doc
```

*Hi, this is a test message.*

*Welcome to Unix Lab.*

*This file has been created at FMT.*

*Nice to meet you.*

*Best of Luck.^Z*

```
[2]+ Stopped cat > jk.doc
```

```
[students@localhost ~]$ cat jk.doc
```

*Hi, this is a test message.*

*Welcome to Unix Lab.*

*This file has been created at FMT.*

*Nice to meet you.*

## 14.No of lines from head

*Description: Shows no of lines in the file from head*

*Syntax: head -n filename.extension*

#### *OUTPUT:*

```
[students@localhost ~]$ head -2 jk.doc
```

*Hi, this is a test message.*

*Welcome to Unix Lab.*

#### *15.No of lines from tail*

*Description: Shows no of lines in the file from bottom*

*Syntax: tail -n filename.extension*

#### *OUTPUT:*

```
[students@localhost ~]$ tail -2 jk.doc
```

*This file has been created at FAMT.*

*Nice to meet you.*

#### *16.Move*

*Description: Moves the file*

*Syntax: mv filename foldername*

#### *OUTPUT:*

```
[students@localhost ~]$ mv jk.doc FAMT
```

```
[students@localhost ~]$ cd FAMT
```

```
[students@localhost FAMT]$ ls
```

*jk.doc*

#### *17.Move contents of one file to other*

*Description: It moves all the contents of file1 to file2*

*Syntax: mv file1 file2*

#### *OUTPUT:*

```
[students@localhost FAMT]$ mv jk.doc famt.doc
```

```
[students@localhost FAMT]$ cat famt.doc
```

*Hi, this is a test message.*

*Welcome to Unix Lab.*

*This file has been created at FAMT.*

*Nice to meet you.*

#### *18.print working directory*

*Description: it prints current working directory*

*Syntax:pwd*

OUTPUT:

```
[students@localhost FAMT]$ pwd  
/home/students/FAMT
```

### 19·Remove folder(empty)

Description: Removes folder which is empty.

Syntax: rm foldername  
rmdir foldername

OUTPUT:

```
[students@localhost ~]$ ls  
ab Desktop ham1.txt newone p5.sh send.py student-marks-utl.txt  
ABC Documents ham.txt ost.txt pass-students.awk shilpa students-marks.txt  
abc.txt Downloads Jawwad OS.txt Pictures shilpa.odt Templates  
add.sh failed.awk mongodb pl_client.c present.awk shilpa.txt test  
anki.txt FAMT mongodb-linux-x86_64-3.4.7 p1.sh prog.sh sonu.txt test1  
check.awk FAMT.doc mongodb-linux-x86_64-3.4.7.tgz p2.sh Public studentd.marks.txt test.txt  
demo FAMTOS Music p3.sh receive.py student-marks.awk Videos  
demo.bin fedora26.pem new.jpg p4.sh report.awk student_marks.txt  
[students@localhost ~]$ rmdir Jawwad  
[students@localhost ~]$ ls  
ab demo.bin FAMTOS Music p2.sh prog.sh shilpa.txt Templates  
ABC Desktop fedora26.pem new.jpg p3.sh Public sonu.txt test  
abc.txt Documents ham1.txt newone p4.sh receive.py studentd.marks.txt test1  
add.sh Downloads ham.txt ost.txt p5.sh report.awk student-marks.awk test.txt  
anki.txt failed.awk mongodb OS.txt pass-students.awk send.py student_marks.txt Videos  
check.awk FAMT mongodb-linux-x86_64-3.4.7 p1_client.c Pictures shilpa student-marks-utl.txt  
check.awk FAMT.doc mongodb-linux-x86_64-3.4.7.tgz pl.sh present.awk shilpa.odt students-marks.txt  
[students@localhost ~]$
```

### 20·Remove folder(non-empty)

Description: Removes folder which is non-empty.

Syntax: rm -rf foldername

OUTPUT:

```
[students@localhost ~]$ rm -rf FAMT  
[students@localhost ~]$ ls  
ab demo FAMT.doc mongodb-linux-x86_64-3.4.7 OS.txt p5.sh receive.py sonu.txt Templates  
ABC demo.bin FAMTOS mongodb-linux-x86_64-3.4.7.tgz p1_client.c pass-students.awk report.awk studentd.marks.txt test  
abc.txt Desktop fedora26.pem Music p2.sh Pictures shilpa student-marks.awk test1  
add.sh Documents ham1.txt new.jpg p3.sh present.awk shilpa student_marks.txt test.txt  
anki.txt Downloads ham.txt newone p4.sh prog.sh shilpa.odt student-marks-utl.txt Videos  
check.awk failed.awk mongodb ost.txt p5.sh Public shilpa.txt students-marks.txt  
[students@localhost ~]$
```

### 21·Change Password

Description: Changes the password

Syntax: passwd

OUTPUT:

```
students@localhost ~]$ passwd
```

Changing password for user students.

Changing password for students.

Current password:

New password:

*Retype new password:*

*passwd: all authentication tokens updated successfully.*

## *22·Logout*

*Description: Logged out from current login*

*Syntax: logout*

## *23·Shutdown*

*Description: Shutdown the PC*

*Syntax: shutdown now*

## **11. Learning Outcomes Achieved**

Students will be able to identify the basic Unix general purpose commands

## **12. Conclusion:**

Thus we have understand general purpose commands of Unix.



### 13. Experiment/Assignment Evaluation

SR	Parameters	Weight	Excellent	Good	Average	Poor	Not as per requirement
		Scale Factor ->	5	4	3	2	0
1	Technical Understanding	25					
2	Performance / Execution	25					
3	Question Answers	20					
4	Punctuality	20					
5	Presentation	10					
	Total out of 100 --> #(to be converted as per term-work evaluation applicable to the subject)		$\Sigma (\text{Weight} * \text{Scale Factor})/5 = \underline{\hspace{2cm}}$				

### References:

- [1] Unix, concepts and applications by Sumitabha Das, McGraw-Hill
- [2] Mastering Shell Scripting, Randal. K. Michael, Second Edition, Wiley Publication

### Viva Questions

- What are UNIX general purpose commands?

