

**THE NEW COLLEGE
(AUTONOMOUS)
CHENNAI – 14.**

**P.G. DEPARTMENT OF COMPUTER SCIENCE
(Shift – I)**



LINUX LAB

**I M.Sc.
COMPUTER SCIENCE**

Name :

Reg. No. :

Subject : LINUX LAB

Subject Code :

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*Certified to be Bonafide Record of work done in the Computer Science Laboratory of **The New College (Autonomous)**, during the academic year 2023 - 2024 by the above candidate.*

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Professor-in-charge

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*Submitted for the Practical Examination held on _____ 2024 in Computer Science Laboratory of **The New College (Autonomous)**, Chennai-14.*

Internal Examiner

External Examiner

Place :

Date :

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1. Basic linux commands

Unix commands

1.echo (i)

To get a new line

\$echo welcome to unix

Welcome to unix

2.tput

\$put

Usage: tput [-v] [-s] [-T term] capname

\$put lines

24

\$put clear

The entire shell will be cleared.

3.tty

\$tty

/dev/pts/o

4.who

\$who

Students	tty7	2015-09-11	19:57
Students	pts10	2015-09-11	20:15(:0)

\$who-Hu

NAME	LINE	TIME	IDLE	PID	COMMENT
Students	tty 7	2015-09-11	19:57 old	1601	
Students	pts10	2015-09-11	20:15	2333(:0)	

\$who am i

Students pts10 2015-09-11 20:15 (:0)

5.uname

\$uname

Linux

\$uname-r

3.5.0-36-generic

\$uname-m

X86-64.

6.date

\$date

Fri sep 11 20:34:35 IST 2015

\$date +%m

09 "this month is 9".

\$date +%d

11. "Today's date is 11".

7.cal

\$cal

September-2015

Su	Mo	Tu	We	Th	Fri	Sat
			1	2	3	4
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			

Passwd

\$passwd

Enter new unix password:

Retype new unix password:

No password supplied

Enter new unix password:

Retype new unix password:

No password supplied

```
Enter new unix password:  
Retype new unix password:  
No password supplied  
Passwd: Authentication token manipulation error.  
Passwd: password unchanged
```

9.bc

\$bc

Bc 1.06.95

Copyright 1991-1994,1997,1998,2000,2004,2006
free software foundation, Inc.

This is free software with ABSOLUTELY NO
WARRANTY For details type 'warranty'.

2. File and Directory commands

File commands

1.cat

\$cat

A cat command is used to create a file

2.touch

\$touch

It is used to create a new empty file

Directory commands

1.pwd

\$pwd

It is used to find the current working directory

2.cd

\$cd /usr/drm

The cd command is used to change the directory.

3.mkdir

\$mkdir sample

The mkdir command used to make a new directory.

4.rmdir

\$rmdir

The rmdir command used to remove directories

3.Shell programming

(i) file and directory permission

1.ls

\$ls

The ls command is used to display all the files in the current directory

2.cp

\$cp section1 section2

The cp command is used to copy a file or group of files

3.mv

\$mv section1 section2

The mv command is used to move the file or rename the file and directories

4.rm

\$rm section2

The is used to remove or delete files

5.wc

\$wc sample

This is used to count the number of lines, words and character in one or more files.

6.ls-l

\$ls-l

This shows all the files in directories

7.ls-r

\$ls-r

This shows the files in reverse order [Z-A] alphabetic order.

8.chmod

\$chmod

\$chmod u+* sample

\$ls-l sample

It is used to change the file permission

9.chown

\$chown SAM sample

\$ls-l sample

It is used to change the ownership of the file

10.chgrp

\$chgrp SAM sample

\$ls-l sample

It is used to join the files in a group

4. Working with control statement

For

```
$cat fortest.sh
For x
in 1357 Do
Echo "the value of x is%x"
Done
$
```

Ifelse

```
$cat age.sh
Echo "\n Enter age:\c"
Read age
If [$age-gt 18] then
Echo "major"
Else
Echo "major"
$
```

While

```
$cat sample.sh
Ans=y
While("$_ans"=="y")do
echo"Enter code and description:\c"
read code description
echo"$code description"
done
$
```

5.Vi Editor

START UP

To use VI editor. Vi file name
To exit vi editor and to save :zz
To exit vi editor without saving :q!
To exit vi command mode :[ex]

CURSOR MOVEMENTS

h move left
j move down
k move up
l move right
\$ last column "on" the current line.
0 move the cursor to the first column on the current line
^ move the cursor to the first column on the current line
w move past the next space.
b move to the beginning of the previous word or punctuation mark.
B move to the beginning of the previous word ignorer punctuation
e End of next word or punctuation mark
E End of next word ignoring punctuation
H move cursor to the top of the screen
M move cursor to the middle of the screen
L move cursor to the bottom of the screen

SCREE MOVEMENT

N

G Move to the last line In the file

XG Move to the line x

Z+ Move current line to the top of the screen

Z Move current line to the middle of the screen

Z- Move current line to the bottom of the screen

^F Move forward one screen

^B Move forward one line

^D Move forward one half line or screen

^U Move backward one half screen.

^R Redraw screen

^L Redraw screen

[Does not work with televideo terminals]

INSERTING

r Replace character under cursor with next character type.

R keep replacing character until (esc) is let

i Insert before cursor

a Append after cursor

o open line above cursor and enter append mode

A Append at end of line

DELETING

x Delete character under cursor

dd Delete line under cursor

dw Delete word under cursor

db Delete word before cursor

COPYING CODE

yy [yank] copies lines which may then be put by the p(put) command. Precede with a count for multiple lines

PUT COMMAND

Bring back previous deletion or yank of lines or characters

p Bring back before cursor

P Bring back after cursor

FIND COMMANDS

? Find a word going backwards

/ Find a word going forwards

f Find a character on the under the cursor going forward

F Find a character on the under the cursor going Backward

t Finds a characters on the current line going forward and step one character before it.

T Finds a character on the current line going Backward and step one character before it

; Repeat last f,F,t,T.

MISCELLANEOUS COMMANDS

• Repeat last command

u Under last command issued

U Undoes all commands on one line

XP Delete first character and insert after Second (swap)

J Join current line with next line

^G Display current line number.

% If at one parenthesis, will jump to itsMode

m_x Mark current line with character x

x Find line marked with character x

LINE EDITOR MODE:

Any command from the line editor ex canbe issued upon entering line mode

To enter type':'

To exit press [return] or [esc]

EX COMMANDS

For a complete list consult theUnix programmer's manual

READING FILES

Copies (read) filename after cursor in fileCurrently editing.

:r filename

WRITE FILE

:w saves the current file without quitting

MOVING

:# Move to line #

:\$ Move to last line of file

SHELL ESCAPE

Executes 'cmd' as a shell command

:!'cmd'.