

Unit - 5

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(Q.9(a)) Explain following Commands:-

- (i) LS (ii) CAT (iii) CD (iv) PWD
- (v) CH Mode (vi) MKDTR (vii) RMDTR
- (viii) MV (ix) CP (x) MAN (xi) APT
- (xii) CAL (xiii) U-Name (xiv) History.

(Q.9(b)) What is Shell script how to write & Execute a Shell Script

(Q.10(a)) What is Shell variable? Explain with Head & expression.

(b) Make a Program using decision making
for or while loop.

Avgno

no great Linux Commands

Directory Command \Rightarrow It include all command which is related with directory

(i) Get The Information of directory
PWD Command \Rightarrow (Present Working Command)
 \Rightarrow It give complete information of directory it provide complete path

(ii) Changing the current directory

\Rightarrow CD Command (Change directory) \Rightarrow Using this we can move from one directory to another directory. Using this we can come outside current directory.

CD ..

\Rightarrow Move to the Parent directory
using cd .. we can give Path

(iii) Creating directory

\Rightarrow MKDTR Command \Rightarrow It can make directory it have two option:

- m \Rightarrow It give the access mode
- P \Rightarrow It Create Parent directory

(iv) Deleting or removing directory

\Rightarrow RMDTR \Rightarrow It can remove any directory RMDTR have following option:-

- P \Rightarrow It also delete parent directory.
- S \Rightarrow It give standard error message.
 \Rightarrow Ex: RMDTR xyz

(v) Viewing Directory \Rightarrow It can show any file or directory It have following option

- a \Rightarrow It show hidden file list
- c \Rightarrow It show acc. to creation time

- d → It shows Sub directory.
- i → It shows inode.
- l → It gives access permission owner or Group owner.
- L → It gives symbolic link info.
- o → It gives owner name.

(vi) Displaying the Content of Text File.

- CAT → It shows all files vertically.
- Ex → CAT xyz.txt
- Options:
 - t → It shows tab character.
 - v → It shows printable & non-printable characters.
 - e → It uses tab character.

- It can use following method
- CAT xyz1>xyz2
- (vi) Copying File → It uses CP Command. It copy content of file one file to another file. It uses following options:
- i → It confirm before from user before overriding.
 - R → It use for copy the directory & sub directory.

MN

Ex - CP xyz1 xyz2

(vii) Renaming or moving a file → It can rename or move any file. It can move file or directory from one directory to another directory. It use source & target directory. It have following option:-

- i → It confirm from user before overriding.
- f → It override target directory.

Ex → MV xyz1 xyz2

RN

(viii) Deleting a file → In this we use RN command. It have following option:-

- f → Forcefully delete the file.
- i → It delete the file interactively.
- r → It delete all file of directory.

Ex - RN xyz

(ix) CH Mode Command → (Changing file access permission) → We can change mode of any file. We can change permission.

Types of mode:-

- Absolute mode
- Symbolic mode

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i) Absolute mode → It change the file access permission. It use read, write, execute or binary value for file access permission.

- i) User ① Read (r)
- ii) Group ② Write (w)
- iii) Other ③ Execute (x)

④ CH mode my → user | group | execute
 own | -r-w | -r--
 (bin)

⑤ CH mode my → 111 → 4075100
 (rwx) (rw-) (rwx) (rwx) (rwx) (rwx)

⑥ CH mode my → 744 → 3075100
 (rwx) (rwx) (rwx) (rwx) (r--) (r--)

Symbolic Mode → It have following types of symbol

+ = Add Permission
 G = Group = Assign Permission

O = Other - = Remove Permission

A = All

R = Read

W = Write

X = execute

- = Remove permission

Ex:- CH mode my → own g=rw b=r

⇒ MAN → It is a manual page it provide help. It assign reference manual. It give Syntax & User method.

⇒ U-name → It provide host name or node name. It have following option

- n → Give node name
- i → It confirm hardware platform. So it give information about system.
- v → It give version info of kernel configuration.
- v → It give kernel version info.
- g → It give output of give name.

⇒ APT → It is called advance Packaging tool. It is a efficient method. It can install any package. It can maintain & update any package.

- i) update → It can update any package
- ii) upgrade → It make the new version
- iii) DIST Upgrade → It can make maintenance. It can add new fun only.
- iv) Install → It install package
- v) Remove → It remove installed package
- vi) remove
- vii) check

viii) Clean

ix) Auto clean

x) Auto Remove

⇒ History → It provide history of all Command.

option → i) Searching History → It work with Grip command. It can search any history.

ii) Changing of Execute command → It can execute any command.

iii) Removing History → It remove the history

iv) Shell variable

Shell Variable Can store any value

It can do different types of calculation.

v) If else then condition

vi) Alphabet, no. of Underscore can be used

vii) First character must be alphabet

viii) Name can break sensitivity

(v) If variable can be easily understand.

Types of variable

i) System

ii) User

i) System → which is already inbuilt in unix
It have following types -

. Ps → It change the prompt.

. Home → It give home directory information.

. Logname → It give login information.

. Mail → It give Email related info.

ii) User → which is made by user.

Looping & Making Decision → we can use diff. Condition to take decision.
According to decision statement will execute. It have following decision making instruction:

i) If then fi

ii) If then Elif fi

iii) Case - Esac

iv) If then fi → It works only single condition. If condition is true then

it check the statement otherwise
program given in a sequence

Syntax :-

```
If <Control Command>
then
Command : ...
fi
```

(ii) If then else fi → It work on two
Condition. If condition is true then
it run statement one otherwise
run statement two.

Syntax :-
if condition then
 if <Control Command>
 then
 command
 else
 command
 fi
fi

If can work on any Condition it use
following three types operation.

- 1) Numerical
- 2) String
- 3) File
- 4) Logical

1) Numerical → In this we can compare
acc. to numerical variable. It can use
following types of variable & Example

- GT → Greater than
- Lt → Less than
- ge → Greater than equal to
- le → less than equal to
- ne → Not equal to
- eq → Equal to

Example :-

```
Echo "Enter the value"
Read a
Mod
if test $a % 2 eq 0 then
then
  echo "even"
else
  echo "odd"
```

4) Logical → In this we use three types
of logical operation.

- & → And Condition
- ! → Not Operation
- || → Or Remove output (Not)

Example

echo "Enter the variable"

read ch

case \$ ch in

1)

echo "Sunday"

2)

echo "Monday" "Tuesday"

3)

Echo "Invalid"

;

esac

Loop

Ans(b) while loop → किसी भी statement को । से शुरू होना वह loop कहलाता है। प्रारंभ होने के बाद किसी भी अवधि तक यह loop कोती ही चले जाते हैं। तो किसी को कोती ही नहीं होता।

1) while

2) until

3) for

4) while loop → किसी दस्ता ज्ञान से आधिक statement की लिखित समेत के रूप में उपलब्ध होना जो संवेदन है।

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Syntax:- while < Control Command >

do

statement

done

Example :-

Echo "Enter the value"

read a

echo " enter the value"

read b

\$ c=0

while \$ a neq 0

do

\$ c = expr. \$ a % \$ b

\$ a = \$ b

\$ b = \$c

done

echo \$a

until loop

Syntax :- until < Control Command >

do

statement

done ..

जब इस किसी भी statement के cond. false होने के बाद करते ही तो काम करने के बाद statement को कई बार use करते हैं।

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until तक while में अंत तक तक
while Condition true होले तक तक तक

$\$ = f = 0$

$\$ i = 0$

$\$ f = 0$

$\$ f = 0$

$\$ i = 0$

Example → until ($\$ i < g & \$ n$)

do

$\$ f = \$ f * \$ i$

$\$ f = \$ f + f$

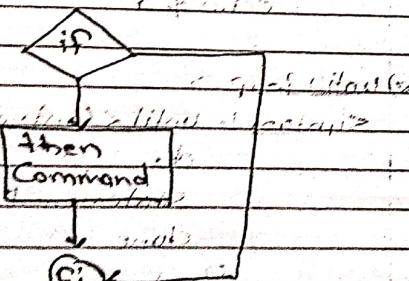
if else

echo $\$ f$

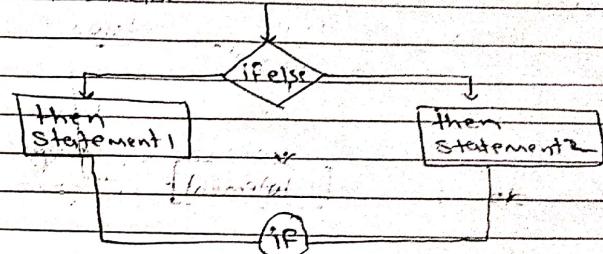
$= 1 \times 2$

$= 2 \times 3$

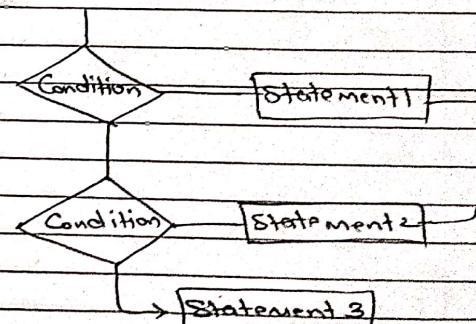
① if



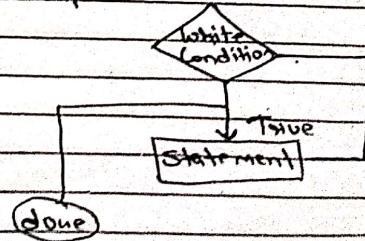
② if then else



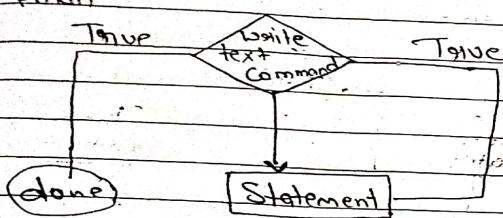
③ fi ↓



④ while loop



(5) Email

Memory Management Type

i) Static - Size fix

ii) Dynamic - Size not fix

Types of Dynamic

- Best fit

- First fit

- Worst fit

. Shell command → Kernel → System call

. Linux feature (or). If we ...

. Shell script → decision making, if loop +
Shell variable

if true

{2. Communication}

goal stated: (a)

higher level

lower level

Guru

<pre> PAGE NO.: 1 / 1 DATE: 1 / 1 echo "enter the value" Read a,b if test a-gt b then echo a else echo b fi echo "even odd" echo "enter the value" Read a if test a mod 2 -eq 0 then echo "even" else echo "odd" fi </pre> <p><i>Worksheet</i></p> <pre> echo "enter the value" Read m if test m-gt 60 then echo "Tall" else if test m-gt 45 then echo "Third" else if test m-gt 30 then echo "Med" else echo "Low" fi fi </pre> <p><i>Vowel</i></p> <pre> if a-aeq "a" or aeq "e" or aeq "i" or aeq "o" or aeq "u" then echo "vowel" else echo "consonant" fi </pre>	<pre> PAGE NO.: 1 / 1 DATE: 1 / 1 echo "enter the value" Read a,b,c if test a-gt b-a & a-gt c then echo a else if test b-gt c then echo b else echo c fi fi </pre>	<pre> PAGE NO.: 1 / 1 DATE: 1 / 1 Call Rmt \$c=350 \$R=0 echo " " Read C if test C-lt 100 then R=expr '\$C* .30' else if test C-lt 300 then R=expr '\$C* .60' else R=expr '\$C*1.20' fi </pre> <p><i>Switch Case</i></p> <pre> Read Ch Case \$Ch in 1) echo "Sunday" 2) echo "Monday" 3) echo "Tuesday" 4) echo "Wednesday" 5) echo "Thursday" 6) echo "Friday" 7) echo "Saturday" *) echo "default" esac </pre>
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~~Prime~~

$\$F = 1$

read n

$\$i = 2$

while test $\$i - lt n$

do

if test $\$n \% \$i - eq 0$ then

$\$F = 0$

fi

done

if $\$F - eq 1$ then

echo 'Prime no'

else

echo "not"

done again?