

Basic Commands

change location on FHS by using 'cd' command

```
# cal
```

```
# bc
```

```
# date
```

```
# uptime
```

```
# passwd
```

```
# hostnamectl
```

```
# cat /etc/redhat-release
```

```
# clear or press Ctrl+I
```

```
# pwd
```

```
/root
```

```
# cd /tmp
```

```
# pwd
```

```
/tmp
```

```
# cd /opt
```

```
# pwd
```

```
/opt
```

-shift between 2locations

```
# cd -
```

```
# cd /proc/
```

```
# cd /media/
```

```
# cd -
```

```
/proc
```

```
# cd -
```

```
/media
```

absolute path

start addressing by use '/'

ex:

```
# pwd
```

```
/
```

```
# cd /var/log/
```

relative path

won't start addressing by use '/'

```
# pwd
```

```
# /var
```

```
# cd log/
```

-back to parent directory

```
# cd ..
```

ex:

```
# cd /var/log
```

```
# pwd
```

```
/var/log
```

```
# cd ..
```

```
# pwd
```

```
/var
```

ex:

```
# cd /var/log
```

```
# pwd
```

```
/var/log
```

```
# cd ../..
```

```
# pwd
```

```
/
```

-what is object type

```
# file /var/log/  
/var/log/: directory      ->object is dir  
# file /var/log/secure  
/var/log/secure: ASCII text ->object is file  
                  : empty   -> object is file  
  
# ls /  
bin/   file1  
directory ended by '/'  
# ll      long list  
# ls      list  
# history      list of command
```

-repeat specific line

```
# !<line number>
```

```
# !60
```

-delete specific line from history

```
# history -d <line number>
```

```
# history -d 66
```

```
-delete history
```

```
# history -c
```

Create empty text file

```
-create single empty text file
```

```
# touch /tmp/file1
```

```
-create multiple empty text files
```

```
# touch /tmp/file{2..7}
```

```
# tree /tmp/
```

```
/tmp/  
├─ file1  
├─ file2  
├─ file3  
├─ file4  
├─ file5  
├─ file6  
└─ file7
```

-create multiple empty text files

```
# touch /tmp/{moon,mars,earth}
```

Create directory

```
-create single dir
```

```
# mkdir /tmp/India
```

```
-create multiple dir's
```

```
# mkdir /tmp/{ts,up}
```

```
# mkdir /tmp/dir{1..5}
```

```
-create nested directories(dir into dir)
```

```
# mkdir -p /tmp/a/b/c/d
```

```
# tree /tmp/
```

```
/tmp/  
├─ a  
│ └─ b  
│   └─ c  
│     └─ d
```

-combine Linux commands together. run multiple Linux commands on single line

1- use &&

2-use ;

1- &&

```
# mkdir /var/tmp/dir1&&touch /var/tmp/dir1/file1
```

2- ;

```
# mkdir /var/tmp/dir2;touch /var/tmp/dir1/file2
```

Operate files/directories

-copy

-move/cut

-rename

-remove/delete

-copy file/dir by use 'cp-copy' command

file

cp <source file> <destination>

cp /tmp/file2 /

-copy and rename

cp <source file> <destination/><new name>

cp /tmp/earth /biswajit

-copy multiple files

cp /tmp/file{3..5} /var/tmp/

cp /tmp/fi* /mnt/

cp -v /mnt/file7 /media/

'/mnt/file7' -> '/media/file7'

-v verbosity

dir

cp -r <source dir> <destination>

cp -r /tmp/dir1/ /

-r recursive

recursive means dir + whatever available inside it.

cp -r /var/tmp/dir1/ /media/

-copy and rename

cp -r /var/tmp/dir1/ /media/dell

-cut file/dir by use 'mv-move' command

file/dir

mv /dir1/ /opt/

mv /file4 /opt/

-move and rename

mv -v /file1 /opt/govind

-rename file/dir by use 'mv-move' command

file/dir

mv /file5 /file55

mv /abc/ /xyz

-remove/delete file/dir by use 'rm-remove' command

file

rm /file3

rm: remove regular empty file '/file3'? yes/no

-dir

empty dir

rmdir /xyz/

or

rm -rf <file/dir>

rm -rf /var/tmp/dir1/

rm -rf /file55

-r recursive

-f forceful

echo "<user input>"

echo hello

echo 'hello' ->1th priority

echo "hello" ->2nd priority

NOTE: user input should enclose by ' ' or " " on Linux

-standard input ->keyboard

-standard output ->monitor

-standard error ->error

echo "hello"

hello

-redirect '>'

want to send/redirect output to file

history > /tmp/history

echo "hello" >/tmp/a.txt

-read text file without open by use 'cat' command

```
# cat /tmp/a.txt
hello
# cat /tmp/history
# cat /etc/passwd
# cat /tmp/a.txt
hello
# echo "this is weekend batch" >/tmp/a.txt
# cat /tmp/a.txt
this is weekend batch
```

NOTE: '>' will replace new contents over existing one

-append '>>'

```
# echo "hello" >>/tmp/a.txt
# cat /tmp/a.txt
this is weekend batch
hello
```

-redirect error to file by use '2>'

```
# mdir /tmp/nasa 2>/tmp/error
```

-append error to file by use '2>>'

```
# fil /tmp/file1 2>>/tmp/error
# cat /tmp/error
-bash: mdir: command not found
-bash: fil: command not found
```

create text file with content by use 'cat' command

-method1, without prompt

```
# cat >/tmp/b.txt
kwljfwehwejfjwejf
,fnkqjqw;d;lqwkqwk;d;qw
qouiwoeytiowoiqojq
press Ctrl+d          ->to save/quit
```

-method2, with prompt

```
# cat >/var/tmp/c.txt <<EOF          EOF ->End Of File
> irqruiqhhqwui
> .qmdqdwqmawd
> 27823784623lqwqihqwdq
> EOF          ->save/quit
```

combine text file together and create new file

```
# cat /tmp/a.txt /tmp/b.txt /var/tmp/c.txt >/final.txt
# cat /final.txt
this is weekend batch
hello
kwljfwehwejfjwejf
,fnkqjqw;d;lqwkqwk;d;qw
qouiwoeytiowoiqojq
irqruiqhhqwui
.qmdqdwqmawd
27823784623lqwqihqwdq
```

Text editor on Linux

1-cli

vi/vim, nano, emacs

default text editor is **vi/vim**

2-gui

gdit

1-cli, vi/vim

vim

or

vim <new file>

or

vim <existing file>

vim

vim has modes to operate:

1-esc mode to do most operations on vim

2-insert mode press 'i' to start writing

3-append mode press 'a' to start writing

4-replace mode

5-record mode

-press 'i' to start writing

-press esc to stop

-save new file and continue

esc :w /path/<new file name>

esc :w /var/tmp/dd.txt

-save and quit

esc :wq

open existing file

vim /tmp/vimfile.txt

-quit the file

esc :q

-quit without save the changed

esc :q!

-jump to end of file

esc shift+g

-jump to start of file

esc gg

-set line number

esc :set number

-jump to specific line

esc :5

-search inside file

esc /<pattern>

esc /root

-shift between searched pattern

press 'n' ->next

yank and put == copy and paste

-single line

go to target line

esc yy

press p to put

-multiple lines

copy lines 10, 11, 12 and 13

go to target starting line (line 10)

esc 4 yy

press p to put

-delete

single line

go to target line

esc dd

multiple lines

copy lines 10, 11, 12

go to target starting line (line 10)

esc 3 dd

-undo

esc u

-redo

esc ctrl+r

-encrypt text file**set encryption**

esc :X ->X is capitol

Enter encryption key: redhat

Enter same key again: redhat

esc :wq!

vim <file>

Enter encryption key:

unset encryption

esc :X ->X is capitol

Enter encryption key: press Enter

Enter same key again: press Enter

esc :wq!

vim <file>

-minimize vim and back to cli

esc :sh sh ->shell

back to vim

exit

or

press Ctrl+d

-run Linux commands inside vim

esc :! <command>

-search and replace

search 'root' and replace to 'coss'

esc :%s/root/coss/gi

-open multiple files

esc :vs <filename>

shift between files

esc Ctrl+ww

-compare files by vim

vimdiff <file1> <file2>

vimdiff passwd passwd1

vimtutor