Linux Commands:-

linuxjourney.com
Netacad courses

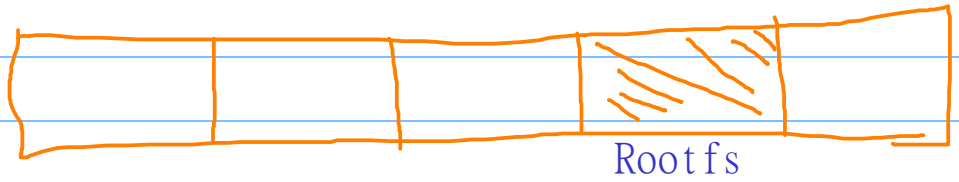
General Purpose
- date
- cal
- echo
- bc
- who, whoami
- logname
- uname

-

```
date +%d
date +%m
date +%y
date +%Y

date +%H
date +%M
date +%S

date +%D
date +%T
----------
bc
10 + 2
12 * 5
18 - 3
37 / 5
scale=4
35/8
   ctrl+D to end
```

```
----------
man date
man cal
man mkdir


cal
cal 10 2018
cal 2024
cal -3
-----
echo Hello World
echo "Hello World"
X=100
echo $X
echo -n "Hello World"
echo -e "Hello \t World"
```

Linux File System Hierarchy



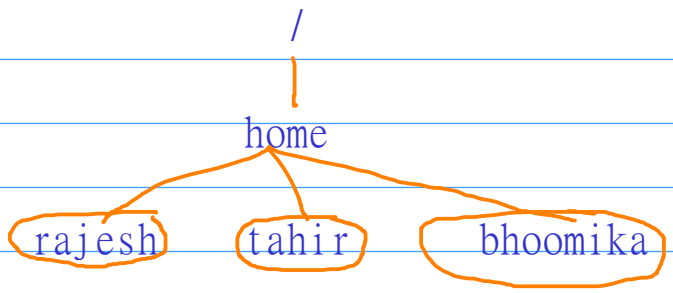
Top level directories under rootfs (/)

/bin	/boot	/dev	/etc	/home	/lib
/media	/mnt	/opt	/proc	/root	/sbin
/srv	/sys	/tmp	/usr	/var	

/home

/home/ravi
/home/rajesh

HOME Dir
cd



==> Home dir
==> cd without arguments

Dir handling:-
==> mkdir
==> rmdir
==> cd
==> pwd
==> ls

File Handling:-
==> touch
==> cat
==> cp
==> mv # move or rename
==> rm
==> wc

==> find

find . -name hello.c
find . -nane '*.txt'
find /usr -name stdio.h
find ~ -name '*.c'

==> grep
grep printf hello.c
grep cout hello.cpp
grep printf *.c

cd
pwd
mkdir sample
cd sample
pwd
mkdir abc
cd abc
pwd
cd .. (or) cd ../..
pwd
cd ..
pwd

TODO:-
==> vim
==> tar, df, du, chmod
==> mounting
==> strace, env

Special Dirs
. current dir
.. parent dir

special symbols
~ home dir
/ root dir

Bash -- Default Shell
(Bourne Again Shell)

process commands

==> ps

```
ps          # current user, current terminal only
ps -el      # all process (all users, all terminals)
ps aux
ps -e -o pid,ppid,stat,cmd
```

origin of process hierarchy : init/systemd (pid : 1)

```
gcc sum.c -g    # compile with debugging support
./a.out
gdb ./a.out
```

(gdb) r

```
(gdb) b main          # breakpoint
(gdb) r               # run
(gdb) s               # single step
(gdb) s
(gdb) c
```

s - step into
n - step over
f - ste out (finish)
c - continue

bt - backtrace
list - source code
print
up, down

```
sudo apt install gdb
```