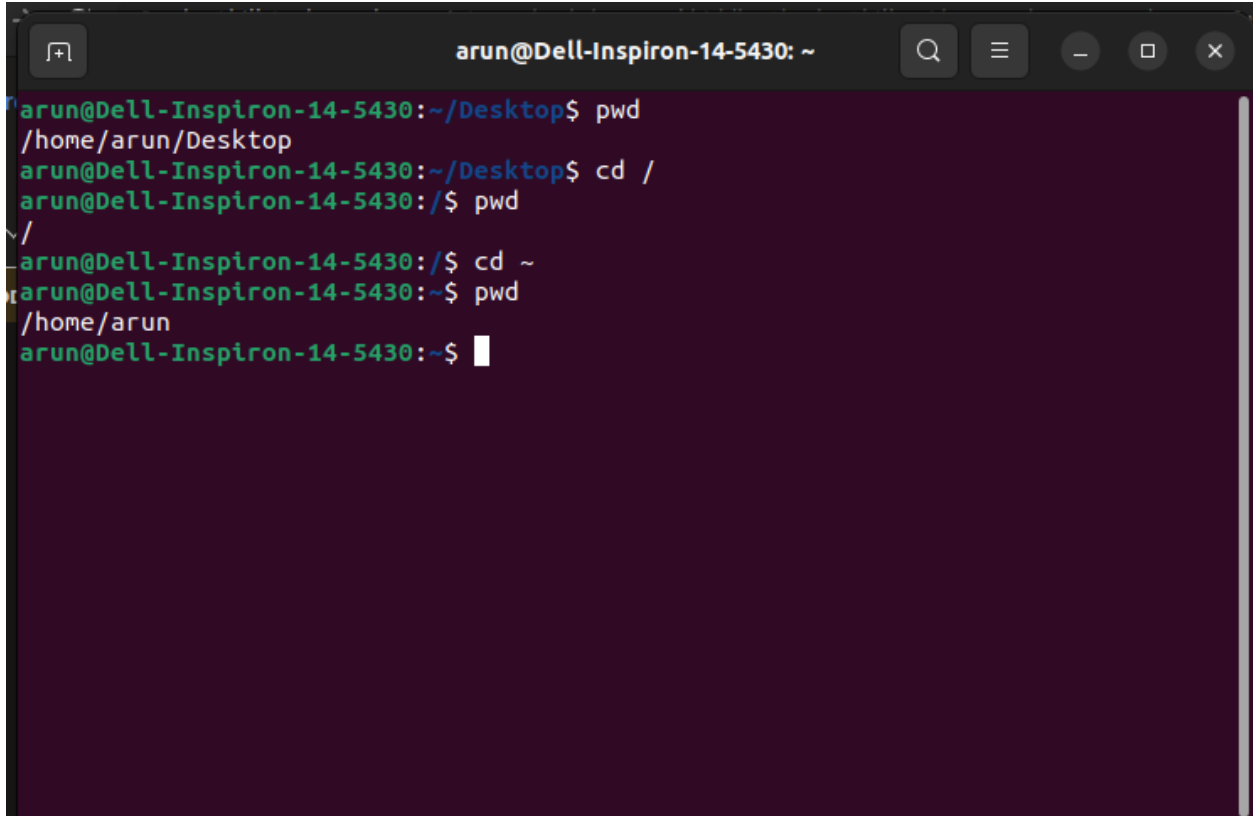


## Trainee Material 1- Linux Part 1

Learning about the linux commands

- > Basic directory is the root directory
- > pwd – present working dir command

A terminal window titled 'arun@Dell-Inspiron-14-5430: ~' with standard window controls. The terminal shows a sequence of commands and their outputs: 'pwd' returns '/home/arun/Desktop', 'cd /' changes the directory to the root, 'pwd' returns '/', 'cd ~' changes the directory to the home directory, and 'pwd' returns '/home/arun'. The prompt is currently 'arun@Dell-Inspiron-14-5430: ~\$' with a cursor.

```
arun@Dell-Inspiron-14-5430:~/Desktop$ pwd
/home/arun/Desktop
arun@Dell-Inspiron-14-5430:~/Desktop$ cd /
arun@Dell-Inspiron-14-5430:/$ pwd
/
arun@Dell-Inspiron-14-5430:/$ cd ~
arun@Dell-Inspiron-14-5430:~$ pwd
/home/arun
arun@Dell-Inspiron-14-5430:~$
```

```
arun@Dell-Inspiron-14-5430: ~/Desktop
arun@Dell-Inspiron-14-5430:~$ ls
a Desktop Documents Downloads google-chrome-stable_current_amd64.deb Music
Pictures Public snap Templates test.txt Videos
arun@Dell-Inspiron-14-5430:~$ cd /
arun@Dell-Inspiron-14-5430:/$ ls
bin boot cdrom dev etc home lib lib32 lib64 libx32 lost+found media
mnt opt proc root run sbin snap srv swapfile sys tmp usr var
arun@Dell-Inspiron-14-5430:/$ cd Desktop
bash: cd: Desktop: No such file or directory
arun@Dell-Inspiron-14-5430:/$ cd ~
arun@Dell-Inspiron-14-5430:~$ cd Desktop
arun@Dell-Inspiron-14-5430:~/Desktop$ ls
'file1.txt\' image names
arun@Dell-Inspiron-14-5430:~/Desktop$ ls ..
a Desktop Documents Downloads google-chrome-stable_current_amd64.deb Music
Pictures Public snap Templates test.txt Videos
arun@Dell-Inspiron-14-5430:~/Desktop$ cd Documents
bash: cd: Documents: No such file or directory
arun@Dell-Inspiron-14-5430:~/Desktop$ ls ../../
arun
arun@Dell-Inspiron-14-5430:~/Desktop$
```

- > cd – change dir eg. Cd / this will change our present dir to root dir
- > ls [options] [file directory] – list all the files eg. ls Documents/, ls ~, ls [path] , ls .. (for backward listing of files), ls ../../ (two times back)
- > ls -l(long format content of each wall), ls -a(will give all the hidden files), ls -al (long list for hidden files)

```

arun@Dell-Inspiron-14-5430:~$ cd ~
arun@Dell-Inspiron-14-5430:~$ ls -a
.                .local
..               .mozilla
a               Music
.bash_history    Pictures
.bash_logout     .pki
.bashrc          .profile
.cache           Public
.config          snap
Desktop          .ssh
Documents        .sudo_as_admin_successful
Downloads        Templates
.gnome           test.txt
.gnupg           .thunderbird
google-chrome-stable_current_amd64.deb Videos
.lessshst        .vscode

arun@Dell-Inspiron-14-5430:~$ ls -l
total 94460
drwxrwxr-x 3 arun arun      4096 Sep  4 14:48 a
drwxr-xr-x 5 arun arun      4096 Sep  4 15:16 Desktop
drwxr-xr-x 3 arun arun      4096 Sep  4 13:15 Documents
drwxr-xr-x 2 arun arun      4096 Sep  4 14:33 Downloads
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_amd64.deb
drwxr-xr-x 2 arun arun      4096 Sep  3 21:13 Music
drwxr-xr-x 3 arun arun      4096 Sep  4 15:52 Pictures
drwxr-xr-x 2 arun arun      4096 Sep  3 21:13 Public
drwx----- 7 arun arun      4096 Sep  4 12:20 snap
drwxr-xr-x 2 arun arun      4096 Sep  3 21:13 Templates
-rw-rw-r-- 1 arun arun       44 Sep  4 13:54 test.txt
drwxr-xr-x 2 arun arun      4096 Sep  3 21:13 Videos

arun@Dell-Inspiron-14-5430:~$ ls -al
total 94528
drwxr-x--- 22 arun arun      4096 Sep  4 14:48 .
drwxr-xr-x  3 root root      4096 Sep  3 21:10 ..
drwxrwxr-x  3 arun arun      4096 Sep  4 14:48 a
-rw-----  1 arun arun     1045 Sep  4 13:55 .bash_history
-rw-r--r--  1 arun arun       220 Sep  3 21:10 .bash_logout
-rw-r--r--  1 arun arun     3771 Sep  3 21:10 .bashrc
drwx----- 18 arun arun      4096 Sep  3 16:59 .cache
drwx----- 18 arun arun      4096 Sep  4 13:39 .config
drwxr-xr-x  5 arun arun      4096 Sep  4 15:16 Desktop
drwxr-xr-x  3 arun arun      4096 Sep  4 13:15 Documents
drwxr-xr-x  2 arun arun      4096 Sep  4 14:33 Downloads
drwx-----  3 arun arun      4096 Sep  3 17:00 .gnome
drwx-----  2 arun arun      4096 Sep  4 12:22 .gnupg
-rw-rw-r--  1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_amd64.deb
-rw-----  1 arun arun        20 Sep  4 13:46 .lessshst
drwx-----  3 arun arun      4096 Sep  3 21:13 .local
drwx-----  3 arun arun      4096 Sep  3 16:48 .mozilla
drwxr-xr-x  2 arun arun      4096 Sep  3 21:13 Music
drwxr-xr-x  3 arun arun      4096 Sep  4 15:52 Pictures
drwx-----  3 arun arun      4096 Sep  3 16:59 .pki
-rw-r--r--  1 arun arun       807 Sep  3 21:10 .profile
drwxr-xr-x  2 arun arun      4096 Sep  3 21:13 Public
drwx-----  7 arun arun      4096 Sep  4 12:20 snap
drwx-----  2 arun arun      4096 Sep  3 16:37 .ssh
-rw-r--r--  1 arun arun         0 Sep  3 16:58 .sudo_as_admin_successful

```

> ls -lS (sort the dir acc to size in desc), ls Documents/\*.html (show all the html files), ls Documents/\*.\* (show all the files in dir)

```
arun@Dell-Inspiron-14-5430: ~  
Pictures Public snap Templates test.txt Videos  
arun@Dell-Inspiron-14-5430:~$ ls -lS  
total 94460  
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_amd64  
deb  
drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a  
drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop  
drwxr-xr-x 3 arun arun 4096 Sep 4 13:15 Documents  
drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads  
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music  
drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures  
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public  
drwx----- 7 arun arun 4096 Sep 4 12:20 snap  
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates  
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos  
-rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt  
arun@Dell-Inspiron-14-5430:~$ cd Documents  
arun@Dell-Inspiron-14-5430:~/Documents$ ls  
'My Books'  
arun@Dell-Inspiron-14-5430:~/Documents$ ..  
..: command not found  
arun@Dell-Inspiron-14-5430:~/Documents$ cd ..  
arun@Dell-Inspiron-14-5430:~$ ls Desktop/*.*  
arun@Dell-Inspiron-14-5430:~$
```

-> ls -lS > out.txt (saves the info on out.txt file)

```
arun@Dell-Inspiron-14-5430: ~/Documents
arun@Dell-Inspiron-14-5430:~$ ls
a Desktop Documents Downloads google-chrome-stable_current_amd64.deb Music P
ictures Public snap Templates test.txt Videos
arun@Dell-Inspiron-14-5430:~$ ls -ls >Documents/out.txt
arun@Dell-Inspiron-14-5430:~$ ls
a Desktop Documents Downloads google-chrome-stable_current_amd64.deb Music P
ictures Public snap Templates test.txt Videos
arun@Dell-Inspiron-14-5430:~$ cd Documents
arun@Dell-Inspiron-14-5430:~/Documents$ ls
'My Books' out.txt
arun@Dell-Inspiron-14-5430:~/Documents$ cat out.txt
total 94460
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_amd64.de
b
drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a
drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop
drwxr-xr-x 3 arun arun 4096 Sep 4 16:37 Documents
drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music
drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public
drwx----- 7 arun arun 4096 Sep 4 12:20 snap
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos
-rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt
arun@Dell-Inspiron-14-5430:~/Documents$
```

-> man ls (all instr or manual for the ls)

/ for root, ~ for home

-> cd (only typing cd will change our dir to home '~'), cd Desktop(to desktop), cd [abs-path]

-> cd "my books", cd my/ books, cd 'my books'(accessing folders with spaces)

```
arun@Dell-Inspiron-14-5430: ~/Desktop/My work
arun@Dell-Inspiron-14-5430:~$ cd Documents
arun@Dell-Inspiron-14-5430:~/Documents$ cd
arun@Dell-Inspiron-14-5430:~$ cd Desktop
arun@Dell-Inspiron-14-5430:~/Desktop$ cd "My work"
bash: cd: My work: No such file or directory
arun@Dell-Inspiron-14-5430:~/Desktop$ cd "My work"
arun@Dell-Inspiron-14-5430:~/Desktop/My work$ cd ..
arun@Dell-Inspiron-14-5430:~/Desktop$ cd 'My work'
arun@Dell-Inspiron-14-5430:~/Desktop/My work$ cd ..
arun@Dell-Inspiron-14-5430:~/Desktop$ cd My/work
bash: cd: My/work: No such file or directory
arun@Dell-Inspiron-14-5430:~/Desktop$ cd My\work
bash: cd: Mywork: No such file or directory
arun@Dell-Inspiron-14-5430:~/Desktop$ cd My\ work
arun@Dell-Inspiron-14-5430:~/Desktop/My work$
```

```
arun@Dell-Inspiron-14-5430: ~/Documents
arun@Dell-Inspiron-14-5430:~/Desktop/My work$ cat
Hello world,Arun this side
Hello world,Arun this side
Hi
Hi
arun@Dell-Inspiron-14-5430:~/Desktop/My work$ cd
arun@Dell-Inspiron-14-5430:~$ cd Document
bash: cd: Document: No such file or directory
arun@Dell-Inspiron-14-5430:~$ ls
a          Downloads          Pictures    Templates
Desktop    google-chrome-stable_current_amd64.deb  Public     test.txt
Documents  Music                snap       Videos
arun@Dell-Inspiron-14-5430:~$ cd Documents
arun@Dell-Inspiron-14-5430:~/Documents$ ls
'My Books'  out.txt
arun@Dell-Inspiron-14-5430:~/Documents$ cat out.txt
total 94460
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_amd64.de
b
drwxrwxr-x 3 arun arun    4096 Sep  4 14:48 a
drwxr-xr-x 5 arun arun    4096 Sep  4 15:16 Desktop
drwxr-xr-x 3 arun arun    4096 Sep  4 16:37 Documents
drwxr-xr-x 2 arun arun    4096 Sep  4 14:33 Downloads
drwxr-xr-x 2 arun arun    4096 Sep  3 21:13 Music
drwxr-xr-x 3 arun arun    4096 Sep  4 15:52 Pictures
drwxr-xr-x 2 arun arun    4096 Sep  3 21:13 Public
drwx----- 7 arun arun    4096 Sep  4 12:20 snap
drwxr-xr-x 2 arun arun    4096 Sep  3 21:13 Templates
drwxr-xr-x 2 arun arun    4096 Sep  3 21:13 Videos
-rw-rw-r-- 1 arun arun      44 Sep  4 13:54 test.txt
arun@Dell-Inspiron-14-5430:~/Documents$
```

-> cat (without anything given, it will just echo the written content), cat list.txt(it will show the content of file)  
> cat -b list.txt (add line number to non blank lines), cat -n list.txt(add line to all number), cat -s file.txt(squeezes to one blank lines), cat -E file.txt (adds \$ at last)



```
arun@Dell-Inspiron-14-5430: ~/Documents
arun@Dell-Inspiron-14-5430:~/Documents$ cat -b out.txt
1 total 94460
2 -rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_
amd64.deb
3 drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a
4 drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop
5 drwxr-xr-x 3 arun arun 4096 Sep 4 16:37 Documents
6 drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads
7 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music
8 drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures
9 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public
10 drwx----- 7 arun arun 4096 Sep 4 12:20 snap
11 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates
12 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos
13 -rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt
arun@Dell-Inspiron-14-5430:~/Documents$ cat -n out.txt
1 total 94460
2 -rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_current_
amd64.deb
3 drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a
4 drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop
5 drwxr-xr-x 3 arun arun 4096 Sep 4 16:37 Documents
6 drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads
7 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music
8 drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures
9 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public
10 drwx----- 7 arun arun 4096 Sep 4 12:20 snap
11 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates
12 drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos
13 -rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt
arun@Dell-Inspiron-14-5430:~/Documents$
```

```
arun@Dell-Inspiron-14-5430: ~/Documents
arun@Dell-Inspiron-14-5430:~/Documents$ cat -s out.txt
total 94460
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_curre
nt_amd64.deb
drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a
drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop
drwxr-xr-x 3 arun arun 4096 Sep 4 16:37 Documents
drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music
drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public
drwx----- 7 arun arun 4096 Sep 4 12:20 snap
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos
-rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt
arun@Dell-Inspiron-14-5430:~/Documents$ cat -E out.txt
total 94460$
-rw-rw-r-- 1 arun arun 96681172 Aug 26 03:33 google-chrome-stable_curre
nt_amd64.deb$
drwxrwxr-x 3 arun arun 4096 Sep 4 14:48 a$
drwxr-xr-x 5 arun arun 4096 Sep 4 15:16 Desktop$
drwxr-xr-x 3 arun arun 4096 Sep 4 16:37 Documents$
drwxr-xr-x 2 arun arun 4096 Sep 4 14:33 Downloads$
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Music$
drwxr-xr-x 3 arun arun 4096 Sep 4 15:52 Pictures$
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Public$
drwx----- 7 arun arun 4096 Sep 4 12:20 snap$
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Templates$
drwxr-xr-x 2 arun arun 4096 Sep 3 21:13 Videos$
-rw-rw-r-- 1 arun arun 44 Sep 4 13:54 test.txt$
arun@Dell-Inspiron-14-5430:~/Documents$
```

->cat > file.txt

