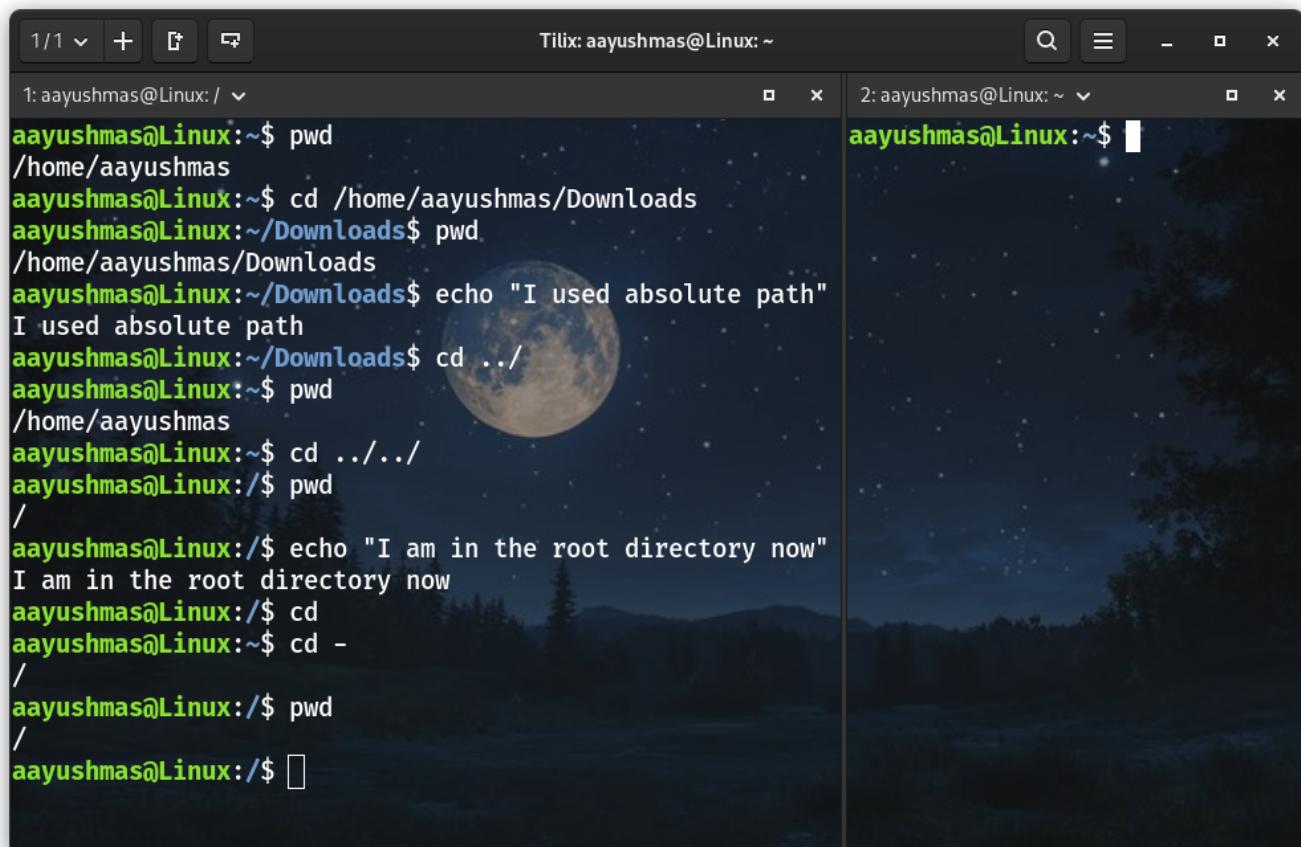


Week Report 5

Practice Screenshots

1. The Linux Filesystem

- Practice 1



The image shows two terminal windows side-by-side. Both windows have a dark background with a night sky and a planet visible. The left window has a title bar '1: aayushmas@Linux: /' and the right window has a title bar '2: aayushmas@Linux: ~'. Both windows show the command-line interface of a Linux system.

Terminal 1 (Left):

```
aayushmas@Linux:~$ pwd
/home/aayushmas
aayushmas@Linux:~$ cd /home/aayushmas/Downloads
aayushmas@Linux:~/Downloads$ pwd
/home/aayushmas/Downloads
aayushmas@Linux:~/Downloads$ echo "I used absolute path"
I used absolute path
aayushmas@Linux:~/Downloads$ cd ../..
aayushmas@Linux:~$ pwd
/home/aayushmas
aayushmas@Linux:~$ cd ../../..
aayushmas@Linux:/$ pwd
/
aayushmas@Linux:/$ echo "I am in the root directory now"
I am in the root directory now
aayushmas@Linux:/$ cd
aayushmas@Linux:~$ cd -
/
aayushmas@Linux:/$ pwd
/
aayushmas@Linux:/$ 
```

Terminal 2 (Right):

```
aayushmas@Linux:~$ 
```

- Practice 2

```
1/ayushmas@Linux:~/practicels$ wget https://cis106.com/assets/practicels.tar.xz
--2025-11-01 17:45:12-- https://cis106.com/assets/practicels.tar.xz
Resolving cis106.com (cis106.com)... 185.199.108.153
Connecting to cis106.com (cis106.com)|185.199.108.153|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2229212 (2.1M) [application/x-xz]
Saving to: 'practicels.tar.xz'

practicels.tar.xz  100%[=====] 2.12M 2.84MB/s  in 0.7s

2025-11-01 17:45:13 (2.84 MB/s) - 'practicels.tar.xz' saved [2229212/2229212]

ayushmas@Linux:~$ tar practicels.tar.xz
tar: You may not specify more than one '--Acdtrux', '--delete' or '--test-label' option
Try 'tar --help' or 'tar --usage' for more information.
ayushmas@Linux:~$ tar Jxf practicels.tar.xz
ayushmas@Linux:~$ ls
cis106  Documents   Music      practicels.tar.xz  snap    Videos
colors   Downloads   Pictures   Public       snapshots  vscode.sh
Desktop  essentials.sh  practicels  Scripts     Templates
ayushmas@Linux:~$ cd practicels/
ayushmas@Linux:~/practicels$ ls
book.txt  history-debian.pdf  movie.mp4  song.mp3  tux-penguin.gif
countries.xml  homework.docx  people.csv  tux-nobg.png
ayushmas@Linux:~/practicels$ ls -a
.  book.txt  history-debian.pdf  movie.mp4  song.mp3  tux-penguin.gif
..  countries.xml  homework.docx  people.csv  tux-nobg.png
ayushmas@Linux:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 ayushmas ayushmas  1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 ayushmas ayushmas 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 ayushmas ayushmas 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ayushmas ayushmas 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 ayushmas ayushmas 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ayushmas ayushmas 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 ayushmas ayushmas 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 ayushmas ayushmas 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 ayushmas ayushmas 44299 Jan 31 2020 tux-penguin.gif
ayushmas@Linux:~/practicels$ ls -l
total 2.9M
-rw-rw-r-- 1 ayushmas ayushmas 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 ayushmas ayushmas 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 ayushmas ayushmas 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ayushmas ayushmas 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 ayushmas ayushmas 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ayushmas ayushmas 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 ayushmas ayushmas 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 ayushmas ayushmas 1.5M Feb 27 2022 tux-nobg.png
ayushmas@Linux:~/practicels$ cd practicels/
ayushmas@Linux:~/practicels$ ls -hl
total 2.9M
-rw-rw-r-- 1 ayushmas ayushmas 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 ayushmas ayushmas 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 ayushmas ayushmas 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 ayushmas ayushmas 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ayushmas ayushmas 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ayushmas ayushmas 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 ayushmas ayushmas 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 ayushmas ayushmas 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 ayushmas ayushmas 44K Jan 31 2020 tux-penguin.gif
ayushmas@Linux:~/practicels$ ls -hlG5
total 2.9M
-rw-rw-r-- 1 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 44K Jan 31 2020 tux-penguin.gif
-rw-rw-r-- 1 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 1.1K Feb 27 2022 book.txt
ayushmas@Linux:~/practicels$ ls -mr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
ayushmas@Linux:~/practicels$ ls -1X
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
ayushmas@Linux:~/practicels$
```

- Practice 3

```
1/1 + 0 - Tilix: ayushmas@Linux ~
ayushmas@Linux:~$ pwd
/home/ayushmas
ayushmas@Linux:~$ cd
ayushmas@Linux:~$ cd /
ayushmas@Linux:/$ cd usr/share/themes/
ayushmas@Linux:/usr/share/themes$ cd ../../..
ayushmas@Linux:/usr$ ls -A $HOME
.. .ayushma Downloads practicels
.bash_aliases essentials.sh practicels.tar.gz
.bash_history .face .profile
.bash_logout .face.icon Public
.bashrc .fonts Scripts
.cache .gitconfig .shutter
cis106 .gnupg snap
colors .local snapshots
.config .mozilla .ssh
Desktop .Music .sudo_as_admin_successful
Documents Pictures Templates
.dotnet .pki .vboxclient-clipboard-tty2-service.pid
ayushmas@Linux:/usr$ cd
ayushmas@Linux:~$ ls -tx cis106/
cheats ExtraCredit final_project labs notes week_reports
ayushmas@Linux:~$ ls -R /home/ayushmas/cis106/
/home/ayushmas/cis106/:
week_reports notes labs final_project ExtraCredit cheats

/home/ayushmas/cis106/week_reports:
wr5 wr4 wr3 wr2 wr1

/home/ayushmas/cis106/week_reports/wr5:
wr5.md practice2.png practice1.png

/home/ayushmas/cis106/week_reports/wr4:
wr4.pdf wr4.md practice2.png practice1.png

/home/ayushmas/cis106/week_reports/wr3:
wr3.pdf practice9.png practice7.png practice5.png practice3.png
wr3.md practice8.png practice6.png practice4.png practice10.png

/home/ayushmas/cis106/week_reports/wr2:
wr2.pdf wr2.md debiandesktop.png

/home/ayushmas/cis106/week_reports/wr1:
wr1.pdf wr1.md slack.png github.png

/home/ayushmas/cis106/notes:
notes5 notes4 notes3 notes2 notes1

ayushmas@Linux:~$ ls -lh $HOME
total 2.2M
drwxrwxr-x 9 ayushmas ayushmas 4.0K Oct 28 23:41 cis106
drwxrwxr-x 3 ayushmas ayushmas 4.0K Oct 30 18:03 colors
drwxr-xr-x 2 ayushmas ayushmas 4.0K Sep 18 15:30 Desktop
drwxr-xr-x 3 ayushmas ayushmas 4.0K Oct 30 18:58 Documents
drwxr-xr-x 2 ayushmas ayushmas 4.0K Oct 30 18:45 Downloads
-rw-rw-r-- 1 ayushmas ayushmas 7.6K Sep 10 10:41 essentials.sh
drwxr-xr-x 2 ayushmas ayushmas 4.0K Sep 18 15:30 Music
drwxr-xr-x 3 ayushmas ayushmas 4.0K Oct 30 18:59 Pictures
drwxrwxr-x 2 ayushmas ayushmas 4.0K Feb 27 2022 practicels
-rw-rw-r-- 1 ayushmas ayushmas 2.2M Oct 29 14:47 practicels.tar.gz
drwxrwxr-x 2 ayushmas ayushmas 4.0K Oct 29 09:55 Scripts
drwx----- 3 ayushmas ayushmas 4.0K Oct 5 15:14 snap
drwxrwxr-x 4 ayushmas ayushmas 4.0K Oct 30 18:00 snapshots
drwxr-xr-x 2 ayushmas ayushmas 4.0K Sep 18 15:30 Templates
drwxr-xr-x 2 ayushmas ayushmas 4.0K Sep 18 15:30 Videos
-rw-rw-r-- 1 ayushmas ayushmas 2.5K Sep 10 10:41 vscode.sh
ayushmas@Linux:~$ ls -lgG --full-time -
total 2248
drwxrwxr-x 9 4096 2025-10-28 23:41:17.000711088 -0400 cis106
drwxrwxr-x 3 4096 2025-10-30 18:03:17.219637971 -0400 colors
drwxr-xr-x 2 4096 2025-09-18 15:30:04.692332107 -0400 Desktop
drwxr-xr-x 3 4096 2025-10-30 18:58:21.358413136 -0400 Documents
drwxr-xr-x 2 4096 2025-10-30 18:45:47.003820695 -0400 Downloads
-rw-rwrxr-x 1 7747 2025-09-10 10:41:54.000000000 -0400 essentials.sh
drwxr-xr-x 2 4096 2025-09-18 15:30:04.692332107 -0400 Music
drwxr-xr-x 3 4096 2025-10-30 18:59:58.825653798 -0400 Pictures
drwxrwxr-x 2 4096 2022-02-27 13:46:18.000000000 -0500 practicels
-rw-rw-r-- 1 2229212 2025-10-29 14:47:35.000000000 -0400 practicels.tar.gz
drwxr-xr-x 2 4096 2025-09-18 15:38:04.692332107 -0400 Public
drwxrwxr-x 2 4096 2025-10-29 00:55:07.149501405 -0400 Scripts
drwx----- 3 4096 2025-10-05 15:14:37.293865653 -0400 snap
drwxrwxr-x 4 4096 2025-10-30 18:00:47.1529362295 -0400 snapshots
drwxr-xr-x 2 4096 2025-09-18 15:30:04.692332107 -0400 Templates
drwxr-xr-x 2 4096 2025-09-18 15:30:04.692332107 -0400 Videos
-rw-rwrxr-x 1 2501 2025-09-10 10:41:54.000000000 -0400 vscode.sh
ayushmas@Linux:~$
```

2. Shell Scripting

- Practice 2

The screenshot shows a terminal window titled "Tilix: aayushmas@Linux: ~/Scripts". The window has two panes. The top pane displays the contents of a file named "script_env_var.sh" with the following code:

```
1 #!/bin/bash
2 echo "The current user is" $USER
3 echo "The current shell is" $SHELL
4 echo "The current user's home directory absolute path is" $HOME
5 echo "The path variable is" $PATH
```

The bottom pane shows the output of running the script:

```
aayushmas@Linux:~/Scripts$ cd Scripts/
aayushmas@Linux:~/Scripts$ bash script_env_var.sh
The current user is aayushmas
The current shell is /bin/bash
The current user's home directory absolute path is /home/aayushmas
The path variable is /usr/local/bin:/usr/bin:/bin:/usr/local/games:/usr/games:/snap/bin:/usr/bin
aayushmas@Linux:~/Scripts$
```

- Practice 3

The screenshot shows a terminal window titled "Tilix: aayushmas@Linux: ~/Scripts". The window has a dark background with a forest and water scene. At the top, there are icons for file operations like Open, Save, and Close. The title bar also displays the script name "script_usr_var.sh" and its path "~/Scripts". The terminal itself contains two sections of text. The first section is the script code:

```
1 #!/bin/bash
2 name="aayushma"
3 age=27
4 email="aayushmas247@gmail.com"
5 phone="123-456-7890"
6
7 echo -e "\tUser Information"
8 echo -e "\tName:\t$name"
9 echo -e "\tAge:\t$age"
10 echo -e "\tEmail address:\t$email"
11 echo -e "\tPhone number:\t$phone"
```

The second section shows the output of running the script with "bash script_usr_var.sh". It displays the user information stored in variables:

```
aayushmas@Linux:~/Scripts$ bash script_usr_var.sh
User Information
Name: aayushma
Age: 27
Email address: aayushmas247@gmail.com
Phone number: 123-456-7890
aayushmas@Linux:~/Scripts$ bash script_usr_var.sh
        User Information
        Name: aayushma
        Age: 27
        Email address: aayushmas247@gmail.com
        Phone number: 123-456-7890
aayushmas@Linux:~/Scripts$
```

Links

- [Note5](#)
- [Lab5](#)