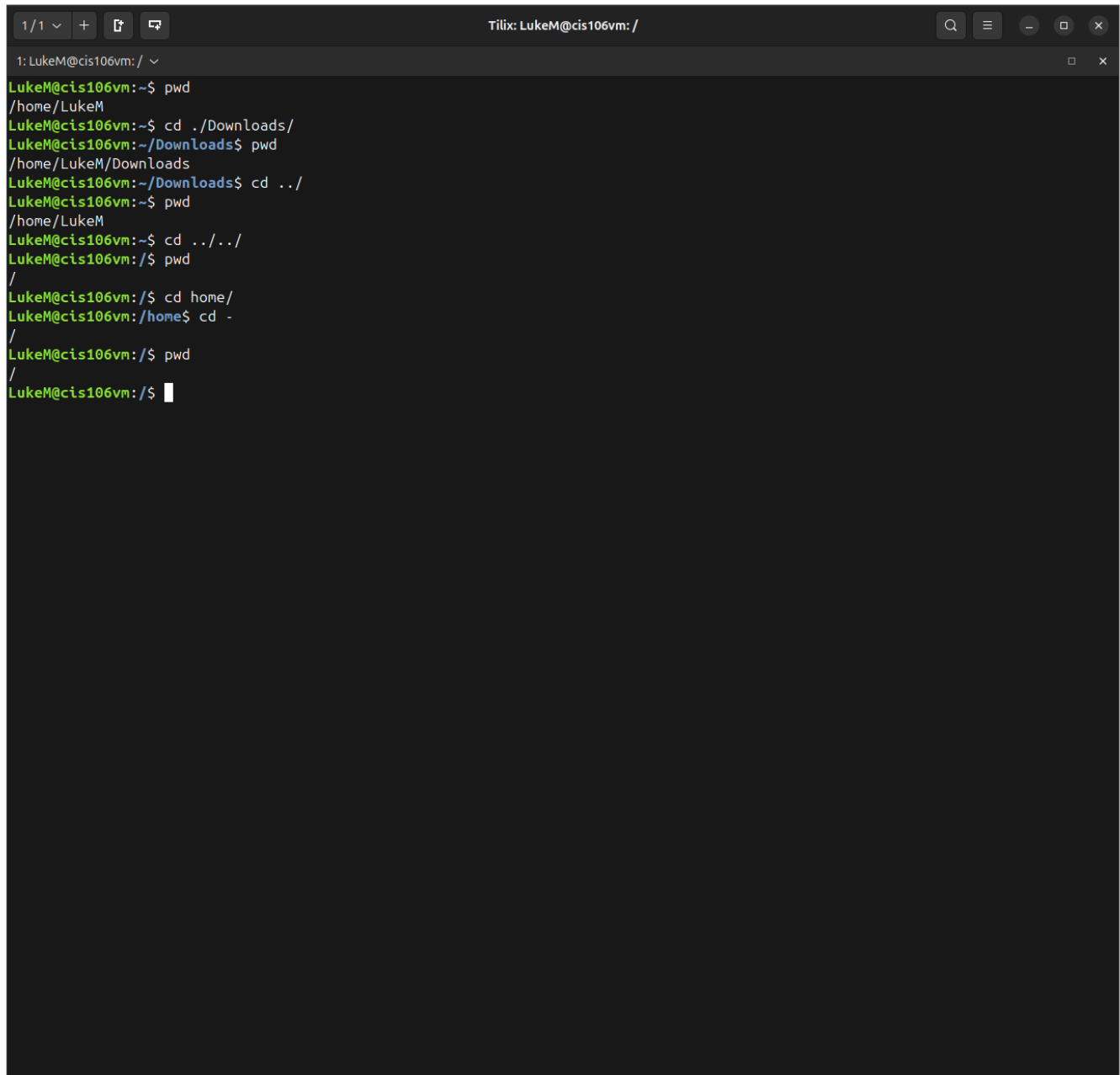


# Week Report 4

---

## Practice 1



```
1/1  +  [Share]  [Copy]  Tilix: LukeM@cis106vm: /  
1: LukeM@cis106vm: /  
LukeM@cis106vm:~$ pwd  
/home/LukeM  
LukeM@cis106vm:~$ cd ./Downloads/  
LukeM@cis106vm:~/Downloads$ pwd  
/home/LukeM/Downloads  
LukeM@cis106vm:~/Downloads$ cd ../  
LukeM@cis106vm:~$ pwd  
/home/LukeM  
LukeM@cis106vm:~$ cd ../../  
LukeM@cis106vm:/ $ pwd  
/  
LukeM@cis106vm:/ $ cd home/  
LukeM@cis106vm:/home$ cd -  
/  
LukeM@cis106vm:/ $ pwd  
/  
LukeM@cis106vm:/ $
```

## Practice 2

```
1/1 v + [ ] [ ]
Tilix: LukeM@cis106vm: ~/Desktop/practicels

1: LukeM@cis106vm: ~/Desktop/practicels v
LukeM@cis106vm:~$ cd Desktop/practicels/
LukeM@cis106vm:~/Desktop/practicels$ ls -a
. book.txt history-debian.pdf movie.mp4 song.mp3 tux-penguin.gif
.. countries.xml homework.docx people.csv tux-nobg.png
LukeM@cis106vm:~/Desktop/practicels$ ls
book.txt countries.xml history-debian.pdf homework.docx movie.mp4 people.csv
song.mp3 tux-nobg.png tux-penguin.gif
LukeM@cis106vm:~/Desktop/practicels$ ls -l
total 2932
-rw-rw-r-- 1 LukeM LukeM 1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 LukeM LukeM 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 LukeM LukeM 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 LukeM LukeM 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 LukeM LukeM 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 LukeM LukeM 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 LukeM LukeM 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 LukeM LukeM 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 LukeM LukeM 44299 Jan 31 2020 tux-penguin.gif
LukeM@cis106vm:~/Desktop/practicels$ ls -l -h
total 2.9M
-rw-rw-r-- 1 LukeM LukeM 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 LukeM LukeM 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 LukeM LukeM 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 LukeM LukeM 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 LukeM LukeM 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 LukeM LukeM 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 LukeM LukeM 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 LukeM LukeM 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 LukeM LukeM 44K Jan 31 2020 tux-penguin.gif
LukeM@cis106vm:~/Desktop/practicels$ ls -l -h -t
total 2.9M
-rw-rw-r-- 1 LukeM LukeM 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 LukeM LukeM 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 LukeM LukeM 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 LukeM LukeM 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 LukeM LukeM 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 LukeM LukeM 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 LukeM LukeM 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 LukeM LukeM 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 LukeM LukeM 44K Jan 31 2020 tux-penguin.gif
LukeM@cis106vm:~/Desktop/practicels$ ls -l -h -o -g -S
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
LukeM@cis106vm:~/Desktop/practicels$

2: LukeM@cis106vm: ~ v
for the file the link references rather than for the link itself
-m fill width with a comma separated list of entries
-n, --numeric-uid-gid like -l, but list numeric user and group IDs
-N, --literal print entry names without quoting
-o like -l, but do not list group information
-p, --indicator-style=slash append / indicator to directories
-q, --hide-control-chars print ? instead of nongraphic characters
--show-control-chars show nongraphic characters as-is (the default, unless program is 'ls' and output is a terminal)
-Q, --quote-name enclose entry names in double quotes
--quoting-style=WORD use quoting style WORD for entry names: literal, locale, shell, shell-always, shell-escape, shell-escape-always, c, escape (overrides QUOTING_STYLE environment variable)
-r, --reverse reverse order while sorting
-R, --recursive list subdirectories recursively
-s, --size print the allocated size of each file, in blocks
-S sort by file size, largest first
--sort=WORD sort by WORD instead of name: none (-U), size (-S), time (-t), version (-v), extension (-X), width
--time=WORD select which timestamp used to display or sort; access time (-u): atime, access, use; metadata change time (-c): ctime, status; modified time (default): mtime, modification; birth time: birth, creation;
Manual page ls(1) line 109/242 64% (press h for help or q to quit)
```

```
Mar 11 13:55
Tilix: LukeM@cis106vm: ~/Desktop/practicels

1: LukeM@cis106vm: ~/Desktop/practicels v
LukeM@cis106vm:~/Desktop/practicels$ ls -n -r
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv,
movie.mp4, homework.docx, history-debian.pdf, countries.xml,
book.txt
LukeM@cis106vm:~/Desktop/practicels$ ls -l -X
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
LukeM@cis106vm:~/Desktop/practicels$

2: LukeM@cis106vm: ~ v
--time-style=TIME_STYLE
time/date format with -l; see TIME_STYLE below
-t sort by time, newest first; see --time
-T, --tabsize=COLS assume tab stops at each COLS instead of 8
-u with -lt: sort by, and show, access time; with -li: show access time and sort by name; otherwise: sort by access time, newest first
-U do not sort; list entries in directory order
-v natural sort of (version) numbers within text
-w, --width=COLS set output width to COLS. 0 means no limit
-x list entries by lines instead of by columns
-X sort alphabetically by entry extension
-Z, --context print any security context of each file
--zero end each output line with NUL, not newline
-l list one file per line
--help display this help and exit
--version output version information and exit

The SIZE argument is an integer and optional unit (example: 10K is 10*1024). Units are K,M,G,T,P,E,Z,Y,R,Q (powers of 1024) or KB,MB,... (powers of 1000). Binary prefixes can be used, too: KiB=K, MiB=M, and so on.

The TIME_STYLE argument can be full-iso, long-iso, iso, locale, or +FORMAT. FORMAT is interpreted like in date(1). If FORMAT is FORMAT1-new-line-FORMAT2, then FORMAT1 applies to non-recent files and FORMAT2 to recent files. TIME_STYLE prefixed with 'posix-' takes effect only outside the POSIX locale. Also the TIME_STYLE environment variable sets the default style to use.

The WHEN argument defaults to 'always' and can also be 'auto' or 'never'.

Using color to distinguish file types is disabled both by default and with --color=never. With --color=auto, ls emits color codes only when standard output is connected to a terminal. The LS_COLORS environment variable can
Manual page ls(1) line 163/242 69% (press h for help or q to quit)
```

## Practice Challenge



```

1: LukeM@cis106vm: /usr
LukeM@cis106vm:~$ pwd
/home/LukeM
LukeM@cis106vm:~$ cd /home/
LukeM@cis106vm:/home$ cd /
LukeM@cis106vm:/$ cd /usr/share/themes/
LukeM@cis106vm:/usr/share$ ls /home/ ~
/home/:
LukeM

/home/LukeM:
cis106
Desktop
Documents
Downloads
essentials.sh
file_name.sh
ImportantNote.txt
Music
Pictures
Public
'Screenshot from 2025-03-05 18-00-05.png'
'Screenshot from 2025-03-05 18-04-05.png'
'Screenshot from 2025-03-05 18-11-17.png'
'Screenshot from 2025-03-05 18-36-01.png'
'Screenshot from 2025-03-05 19-09-09.png'
scripts
snap
SSs
Templates
var.sh
Videos
LukeM@cis106vm:/usr$ ls /home/LukeM/cis106/ -tX
cheatSheets finalExam labs notes weekReports
LukeM@cis106vm:/usr$ ls /home/LukeM/cis106/ -Rr
/home/LukeM/cis106/:
weekReports notes labs finalExam cheatSheets

/home/LukeM/cis106/weekReports:
wr4 wr3 wr2 wr1

/home/LukeM/cis106/weekReports/wr4:
wr4.md Practice2_10-11.png
Practice2_1-9.png Practice1.png

/home/LukeM/cis106/weekReports/wr3:
wr3.png
wr3.pdf
wr3.md
wr3.jpeg
wr3.html
'Practice 7 2025-02-19 21-41-28.png'
'Practice 6 2025-02-19 21-32-08.png'

```

```

1/1 + 
1: LukeM@cis106vm: /usr
LukeM@cis106vm:/usr$ ls -lh /home ~
/home:
total 4.0K
drwxr-x--- 23 LukeM LukeM 4.0K Mar 11 14:03 LukeM

/home/LukeM:
total 1.4M
drwxrwxr-x 8 LukeM LukeM 4.0K Feb 24 14:32 cis106
drwxr-xr-x 3 LukeM LukeM 4.0K Mar 11 13:21 Desktop
drwxr-xr-x 2 LukeM LukeM 4.0K Feb 5 18:41 Documents
drwxr-xr-x 4 LukeM LukeM 4.0K Mar 11 13:20 Downloads
-rwxrwxr-x 1 LukeM LukeM 2.4K Feb 6 19:43 essentials.sh
-rw-rw-r-- 1 LukeM LukeM 95 Feb 19 17:13 file_name.sh
-rw-rw-r-- 1 LukeM LukeM 168 Mar 5 18:50 ImportantNote.txt
drwxr-xr-x 2 LukeM LukeM 4.0K Feb 5 18:41 Music
drwxr-xr-x 3 LukeM LukeM 4.0K Feb 24 15:59 Pictures
drwxr-xr-x 2 LukeM LukeM 4.0K Feb 5 18:41 Public
-rw-rw-r-- 1 LukeM LukeM 212K Mar 5 18:00 'Screenshot from 2025-03-05 18-00-05.png'
-rw-rw-r-- 1 LukeM LukeM 238K Mar 5 18:04 'Screenshot from 2025-03-05 18-04-05.png'
-rw-rw-r-- 1 LukeM LukeM 241K Mar 5 18:11 'Screenshot from 2025-03-05 18-11-17.png'

```

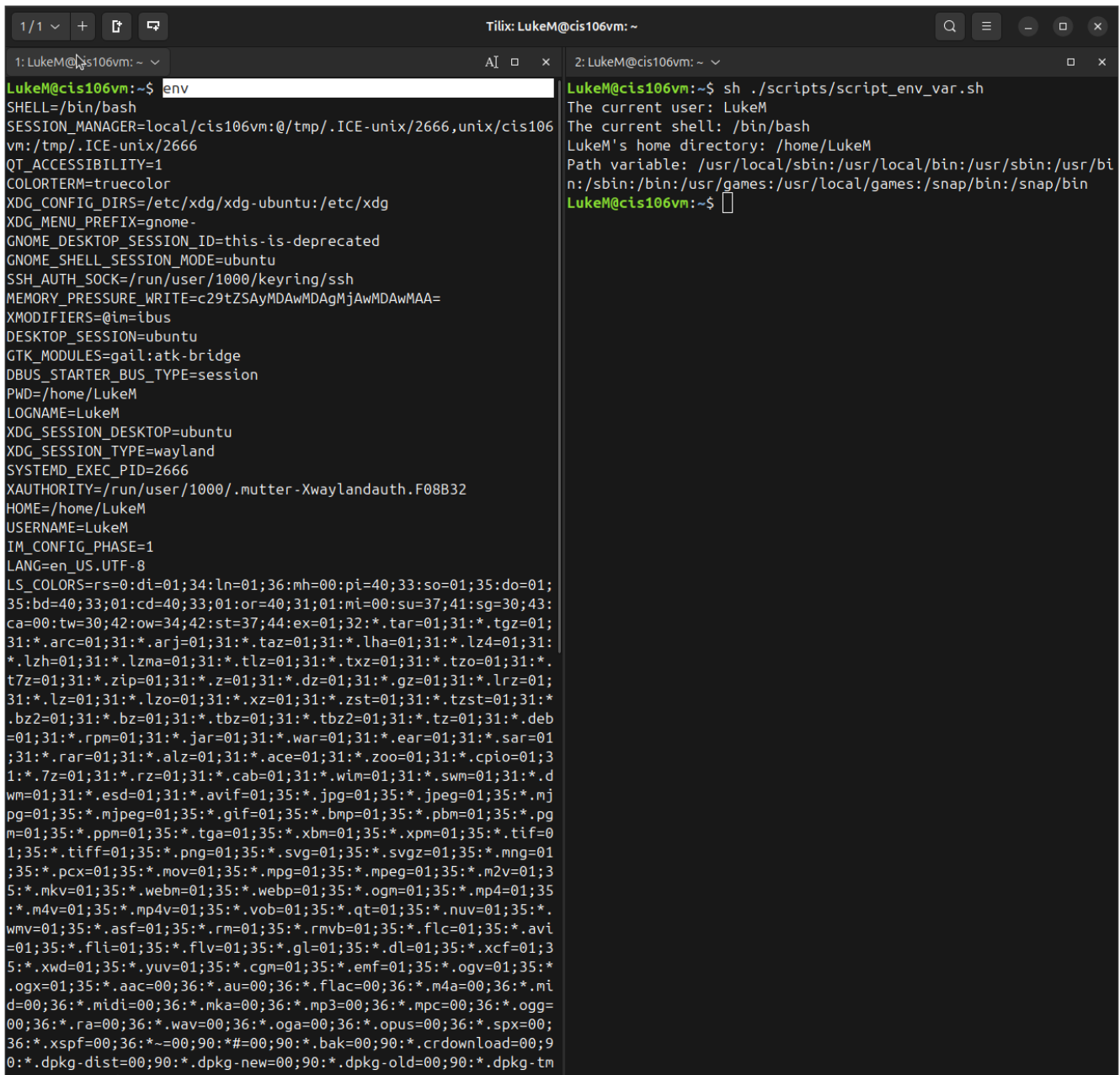
```

-rw-rw-r-- 1 LukeM LukeM 230K Mar  5 18:36 'Screenshot from 2025-03-05 18-36-01.png'
-rw-rw-r-- 1 LukeM LukeM 360K Mar  5 19:09 'Screenshot from 2025-03-05 19-09-09.png'
drwxrwxr-x 2 LukeM LukeM 4.0K Feb 19 18:51 scripts
drwx----- 7 LukeM LukeM 4.0K Feb 24 14:39 snap
drwxrwxr-x 2 LukeM LukeM 4.0K Feb 19 18:58 SSs
drwxr-xr-x 2 LukeM LukeM 4.0K Feb  5 18:41 Templates
-rw-rw-r-- 1 LukeM LukeM  288 Mar  5 19:13 var.sh
drwxr-xr-x 2 LukeM LukeM 4.0K Feb  5 18:41 Videos
LukeM@cis106vm:/usr$ ls -log --full-time /home/ ~
/home/:
total 4
drwxr-x--- 23 4096 2025-03-11 14:03:37.115678886 -0400 LukeM

/home/LukeM:
total 1352
drwxrwxr-x 8  4096 2025-02-24 14:32:03.400168107 -0500 cis106
drwxr-xr-x 3  4096 2025-03-11 13:21:06.192937350 -0400 Desktop
drwxr-xr-x 2  4096 2025-02-05 18:41:59.373669026 -0500 Documents
drwxr-xr-x 4  4096 2025-03-11 13:20:31.817754274 -0400 Downloads
-rwxrwxr-x 1 2452 2025-02-06 19:43:15.845605723 -0500 essentials.sh
-rw-rw-r-- 1   95 2025-02-19 17:13:45.458149143 -0500 file_name.sh
-rw-rw-r-- 1  168 2025-03-05 18:50:26.586772920 -0500 ImportantNote.txt
drwxr-xr-x 2  4096 2025-02-05 18:41:59.373669026 -0500 Music
drwxr-xr-x 3  4096 2025-02-24 15:59:54.581094412 -0500 Pictures
drwxr-xr-x 2  4096 2025-02-05 18:41:59.373669026 -0500 Public
-rw-rw-r-- 1 217068 2025-03-05 18:00:10.702774197 -0500 'Screenshot from 2025-03-05 18-00-05.png'
-rw-rw-r-- 1 242993 2025-03-05 18:04:07.651217341 -0500 'Screenshot from 2025-03-05 18-04-05.png'
-rw-rw-r-- 1 246434 2025-03-05 18:11:18.963817095 -0500 'Screenshot from 2025-03-05 18-11-17.png'
-rw-rw-r-- 1 234723 2025-03-05 18:36:02.555670238 -0500 'Screenshot from 2025-03-05 18-36-01.png'
-rw-rw-r-- 1 367794 2025-03-05 19:09:11.938906659 -0500 'Screenshot from 2025-03-05 19-09-09.png'
drwxrwxr-x 2  4096 2025-02-19 18:51:12.294521715 -0500 scripts
drwx----- 7  4096 2025-02-24 14:39:32.747782979 -0500 snap

```

## Practice 3



```

1/1 + [ [
Tilix: LukeM@cis106vm: ~
1: LukeM@cis106vm: ~
LukeM@cis106vm:~$ env
SHELL=/bin/bash
SESSION_MANAGER=local/cis106vm:@/tmp/.ICE-unix/2666,unix/cis106
vm:/tmp/.ICE-unix/2666
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
GNOME_SHELL_SESSION_MODE=ubuntu
SSH_AUTH_SOCK=/run/user/1000/keyring/ssh
MEMORY_PRESSURE_WRITE=c29tZSAyMDAwMDAgMjAwMDAwMAA=
XMODIFIERS=@im=ibus
DESKTOP_SESSION=ubuntu
GTK_MODULES=gail:atk-bridge
DBUS_STARTER_BUS_TYPE=session
PWD=/home/LukeM
LOGNAME=LukeM
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=2666
XAUTHORITY=/run/user/1000/.mutter-Xwaylandauth.F08B32
HOME=/home/LukeM
USERNAME=LukeM
IM_CONFIG_PHASE=1
LANG=en_US.UTF-8
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;
35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=00:su=37;41:sg=30;43:
ca=00:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;
31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:
*.lzh=01;31:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.
t7z=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;
31:*.lz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzst=01;31:*.
.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb
=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01
;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;3
1:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.d
wm=01;31:*.esd=01;31:*.avif=01;35:*.jpg=01;35:*.jpeg=01;35:*.mj
pg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pg
m=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=0
1;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01
;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;3
5:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=01;35
:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;35:*.
wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi
=01;35:*.fli=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;3
5:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.
ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mi
d=00;36:*.midi=00;36:*.mka=00;36:*.mp3=00;36:*.mpc=00;36:*.ogg=
00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;
36:*.xspf=00;36:*=00;90:*=00;90:*.bak=00;90:*.crdownload=00;90
:*.dpkg-dist=00;90:*.dpkg-new=00;90:*.dpkg-old=00;90:*.dpkg-tm
2: LukeM@cis106vm: ~
LukeM@cis106vm:~$ sh ./scripts/script_env_var.sh
The current user: LukeM
The current shell: /bin/bash
LukeM's home directory: /home/LukeM
Path variable: /usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bi
n:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/snap/bin
LukeM@cis106vm:~$

```

## Practice 4

