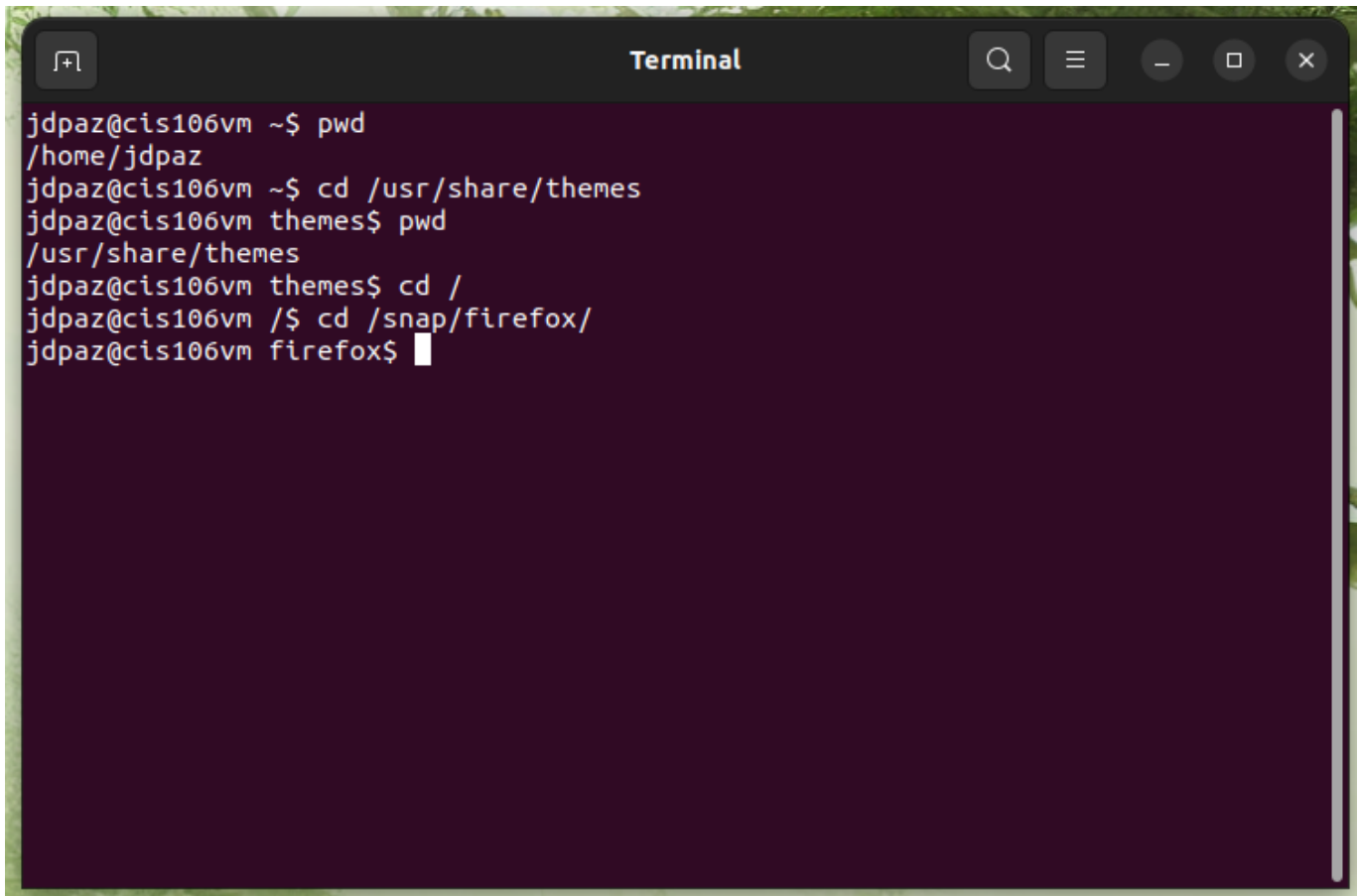
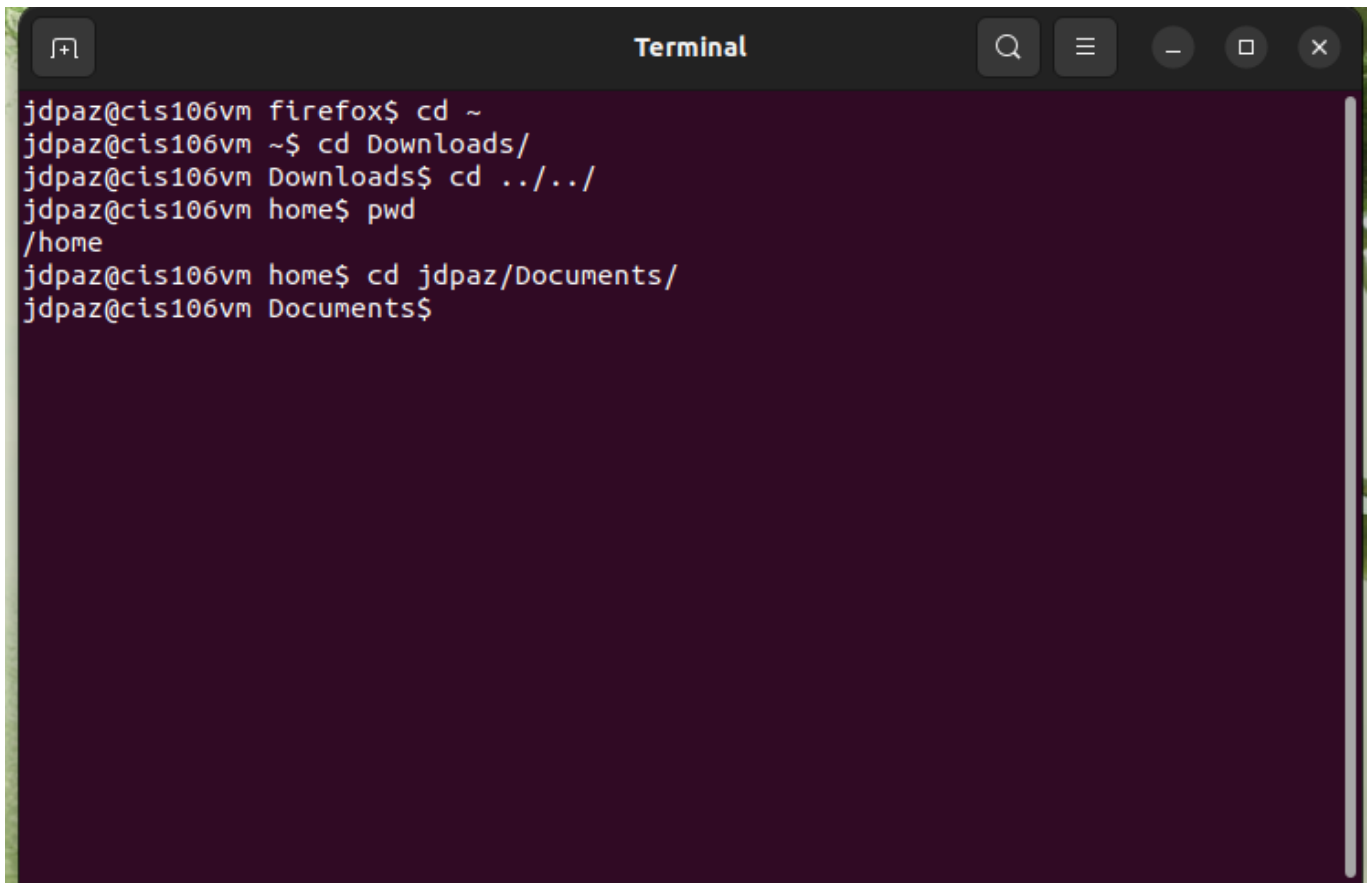


Lab 4 - The Linux Filesystem

Question 1



```
Terminal
jdpaz@cis106vm ~$ pwd
/home/jdpaz
jdpaz@cis106vm ~$ cd /usr/share/themes
jdpaz@cis106vm themes$ pwd
/usr/share/themes
jdpaz@cis106vm themes$ cd /
jdpaz@cis106vm /$ cd /snap/firefox/
jdpaz@cis106vm firefox$
```



```
Terminal
jdpaz@cis106vm firefox$ cd ~
jdpaz@cis106vm ~$ cd Downloads/
jdpaz@cis106vm Downloads$ cd ../../
jdpaz@cis106vm home$ pwd
/home
jdpaz@cis106vm home$ cd jdpaz/Documents/
jdpaz@cis106vm Documents$
```

Question 2

```
jdpaz@cis106vm Documents$ cd /usr/share/
jdpaz@cis106vm share$ ls /home/jdpaz/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv    globe.avi      Linux.pdf     Tux.png     website.html
jdpaz@cis106vm share$ cd ~/lab4files/
jdpaz@cis106vm lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 jdpaz jdpaz 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 jdpaz jdpaz 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 jdpaz jdpaz 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 jdpaz jdpaz 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 jdpaz jdpaz 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 jdpaz jdpaz 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 jdpaz jdpaz 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 jdpaz jdpaz 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 jdpaz jdpaz 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 jdpaz jdpaz 135K Feb 22 2022 website.html
jdpaz@cis106vm lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 jdpaz jdpaz 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 jdpaz jdpaz 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 jdpaz jdpaz 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 jdpaz jdpaz 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 jdpaz jdpaz 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 jdpaz jdpaz 135K Feb 22 2022 website.html
-rw-rw-r-- 1 jdpaz jdpaz 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 jdpaz jdpaz 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 jdpaz jdpaz 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 jdpaz jdpaz 76 Feb 22 2022 helloWorld.c
jdpaz@cis106vm lab4files$ ls -lhSgGi
total 6.5M
2404563 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
2404572 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
2404605 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
2404606 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
2404604 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
2404621 -rw-rw-r-- 1 135K Feb 22 2022 website.html
2404566 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
2404603 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
2404620 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
2404607 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
jdpaz@cis106vm lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html   csvfile.csv    globe.avi
jdpaz@cis106vm lab4files$
```

Question 4

```

jdpaz@cis106vm ~$ pwd
/home/jdpaz
jdpaz@cis106vm ~$ cd /usr/share/icons/default
jdpaz@cis106vm default$ cd /proc/sys/net/ipv4
jdpaz@cis106vm ipv4$ cd -
/usr/share/icons/default
jdpaz@cis106vm default$ ls /usr/share/backgrounds
Blue_flower_by_Elena_Stravoravdi.jpg      jj_light_by_Hiking93.jpg
canvas_by_roytanck.jpg                    Mirror_by_Uday_Nakade.jpg
Cherry_Tree_in_Lakones_by_elenastravoravdi.jpg Optical_Fibers_in_Dark_by_Elena_Stravoravdi.jpg
contest                                   ubuntu2_by_arman1992.jpg
DSC2943_by_kcpru.jpg                     ubuntu_by_arman1992.jpg
Jammy-Jellyfish_WP_4096x2304_Grey.png     ubuntu-default-greyscale-wallpaper.png
jj_dark_by_Hiking93.jpg                  warty-final-ubuntu.png
jdpaz@cis106vm default$ ls ~
Backup Desktop Downloads Music Public Templates
cis106 Documents lab4files Pictures snap Videos
jdpaz@cis106vm default$ ls ~/cis106
cheatSheets labs weekReports
jdpaz@cis106vm default$ cd /home
jdpaz@cis106vm home$ ls jdpaz/Downloads/
code_1.75.0-1675266613_amd64.deb  file2link  games      logs      question2.png
file1                             FiraCode  Gohu       question1.1.png question3.png
file2                             FiraMono  lab4files.zip question1.2.png question4.png
jdpaz@cis106vm home$ cd /dev/disk/by-id

```

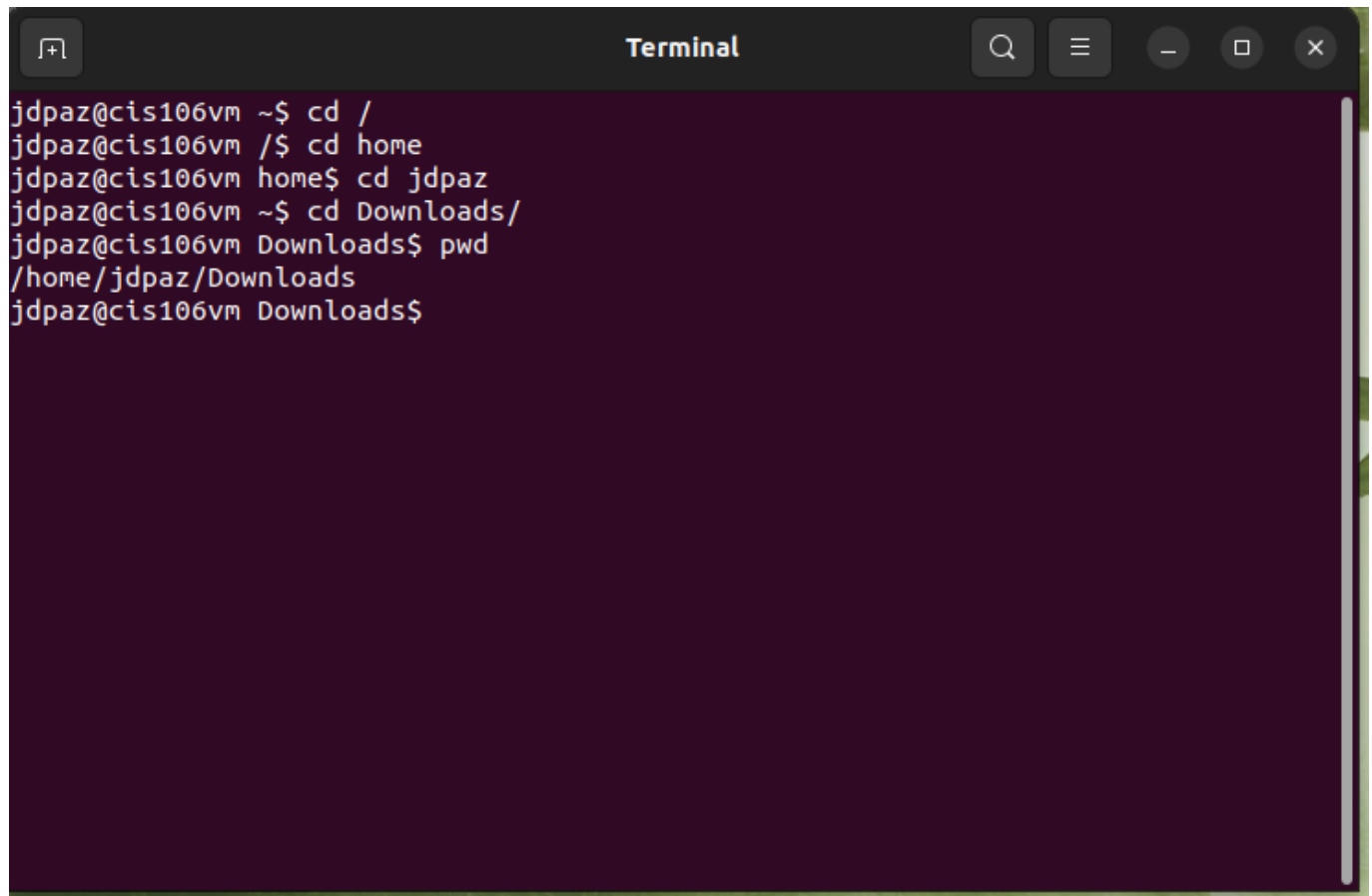
```

jdpaz@cis106vm by-id$ ls -la /home/jdpaz
total 164
drwxr-x--- 25 jdpaz jdpaz 4096 Mar 28 21:10 .
drwxr-xr-x  3 root  root  4096 Feb  7 02:08 ..
drwxrwxr-x  3 jdpaz jdpaz 4096 Mar 14 18:45 Backup
-rw-----  1 jdpaz jdpaz 7610 Mar 28 14:10 .bash_history
-rw-r--r--  1 jdpaz jdpaz  220 Feb  7 02:08 .bash_logout
-rw-r--r--  1 jdpaz jdpaz 3790 Mar 28 00:17 .bashrc
-rw-r--r--  1 jdpaz jdpaz 3771 Mar  9 23:08 .bashrc.bak
drwx----- 21 jdpaz jdpaz 4096 Mar  9 23:41 .cache
drwxrwxr-x  6 jdpaz jdpaz 4096 Mar  9 00:10 cis106
-rw-rw-r--  1 jdpaz jdpaz 3520 Mar  6 23:01 .cis106.png
drwx----- 27 jdpaz jdpaz 4096 Mar 28 13:52 .config
drwxr-xr-x  3 jdpaz jdpaz 4096 Mar 28 00:35 Desktop
drwx-----  2 jdpaz jdpaz 4096 Mar  8 00:50 .dillo
drwxr-xr-x  4 jdpaz jdpaz 4096 Mar 14 18:55 Documents
drwxrwxr-x  3 jdpaz jdpaz 4096 Feb  7 23:54 .dotnet
drwxr-xr-x  7 jdpaz jdpaz 4096 Mar 28 13:38 Downloads
drwx-----  3 jdpaz jdpaz 4096 Mar  8 00:05 .fltk
drwxrwxr-x  2 jdpaz jdpaz 4096 Mar  7 00:33 .fonts
-rw-rw-r--  1 jdpaz jdpaz  59 Feb  8 00:56 .gitconfig
drwx-----  2 jdpaz jdpaz 4096 Mar  8 00:12 .gnupg
drwxrwxr-x  2 jdpaz jdpaz 4096 Feb 22 2022 lab4files
-rw-----  1 jdpaz jdpaz  20 Mar 28 00:31 .lessht
drwx-----  4 jdpaz jdpaz 4096 Feb  8 01:43 .local
drwxr-xr-x  2 jdpaz jdpaz 4096 Feb  7 02:15 Music
drwxr-xr-x  4 jdpaz jdpaz 4096 Mar 28 13:51 Pictures
drwx-----  3 jdpaz jdpaz 4096 Feb  7 23:51 .pki
-rw-r--r--  1 jdpaz jdpaz  807 Feb  7 02:08 .profile
drwxr-xr-x  2 jdpaz jdpaz 4096 Feb  7 02:15 Public
drwx-----  5 jdpaz jdpaz 4096 Feb  7 23:49 snap
drwx-----  2 jdpaz jdpaz 4096 Mar 28 01:11 .ssh
-rw-r--r--  1 jdpaz jdpaz  0 Feb  7 22:28 .sudo_as_admin_successful
drwxr-xr-x  2 jdpaz jdpaz 4096 Feb  7 02:15 Templates
-rw-r-----  1 jdpaz jdpaz  5 Mar 28 21:10 .vboxclient-clipboard.pid
-rw-r-----  1 jdpaz jdpaz  5 Mar 28 21:10 .vboxclient-draganddrop.pid
-rw-r-----  1 jdpaz jdpaz  5 Mar 28 21:10 .vboxclient-seamless.pid
-rw-r-----  1 jdpaz jdpaz  5 Mar 28 21:10 .vboxclient-vmvga-session-tty2.pid
drwxr-xr-x  4 jdpaz jdpaz 4096 Mar  7 18:54 Videos
-rw-----  1 jdpaz jdpaz 9844 Mar 28 00:17 .viminfo

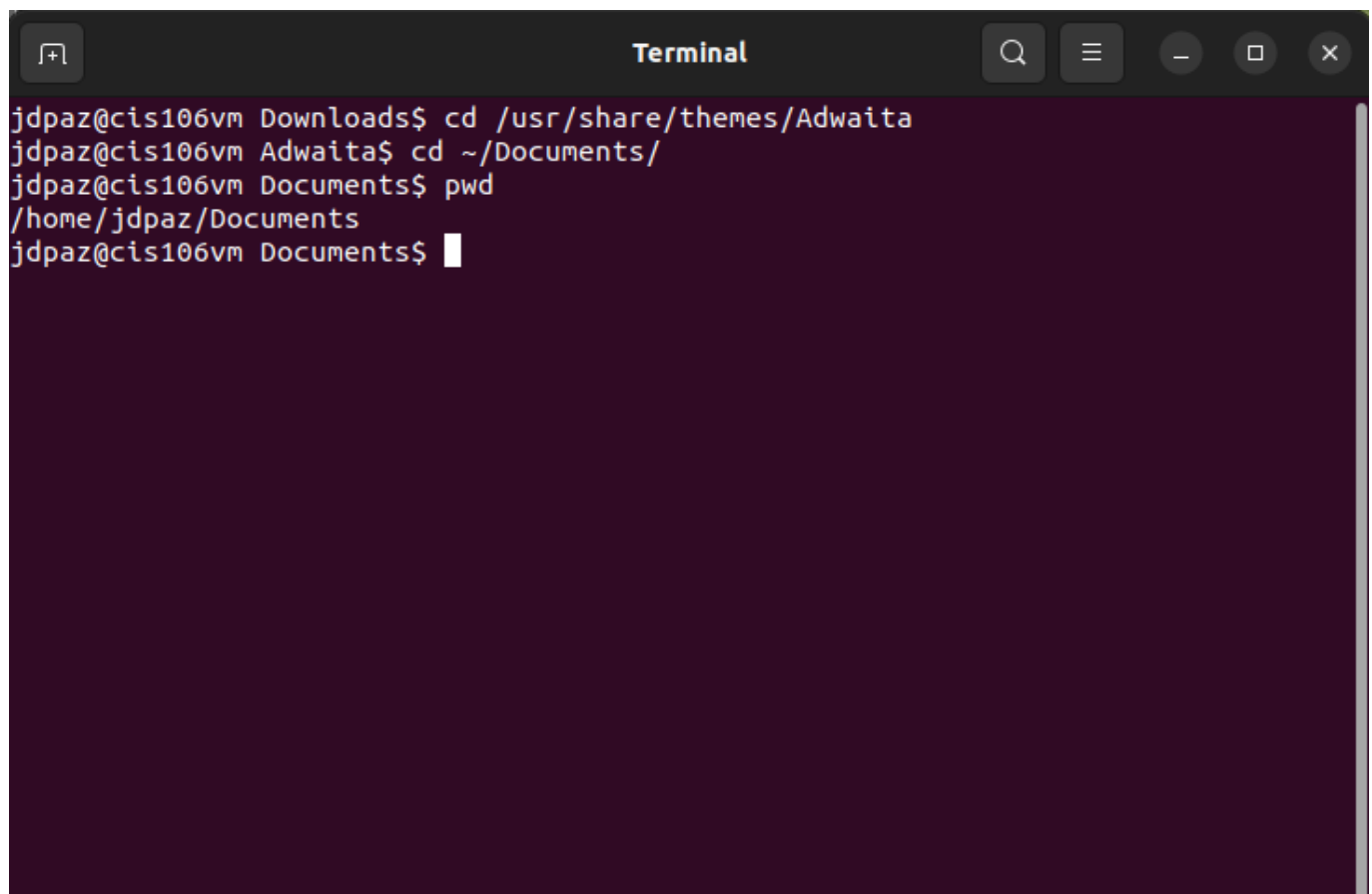
```

```
drwxrwxr-x  3 jdpaz jdpaz 4096 Feb  7 23:51 .vscode
jdpaz@cis106vm by-id$ ls -t /usr/share/themes
Yaru          Yaru-dark-hdpi    Yaru-olive-dark    Yaru-red-dark      Default
Yaru-bark     Yaru-dark-xhdpi   Yaru-prussiangreen Yaru-sage           Emacs
Yaru-bark-dark Yaru-hdpi         Yaru-prussiangreen-dark Yaru-sage-dark     Raleigh
Yaru-blue     Yaru-magenta      Yaru-purple        Yaru-viridian      Adwaita
Yaru-blue-dark Yaru-magenta-dark Yaru-purple-dark   Yaru-viridian-dark Adwaita-dark
Yaru-dark     Yaru-olive        Yaru-red          Yaru-xhdpi         HighContrast
jdpaz@cis106vm by-id$ ls -X /usr/share
accountsservice      gnome-system-monitor      perl
acllocal             gnome-todo                perl5
acpi-support         gnome-tweaks              perl-openssl-defaults
adduser              gnome-video-effects       php
aisleriot            gnupg                     pipewire
alacarte             grilo-plugins             pixmaps
alsa                 groff                     pkgconfig
alsa-base            grub                      plymouth
alsa-card-profile    grub-gfxpayload-lists    pnm2ppa
appdata              gst-plugins-base          pocketsphinx
app-info             gtk-doc                   polkit-1
applications         gtk-engines               poppler
appport             gtksourceview-4          ppd
apps                 guile                     ppp
apturl               gupnp-av                  publicsuffix
aspell               gvfs                      pulseaudio
avahi                help                       pyshared
backgrounds          help-langpack             python3
base-files           hplip                     python-apt
base-passwd          hunspell                  qlogging-categories5
bash-completion      hwdata                    qt5
binfmts              hyphen                     readline
branding              i18n                       remmina
brlty                ibus                       rhythmbox
bug                  ibus-table                rig
build-essential      icons                      rsync
ca-certificates      ImageMagick-6             rsyslog
caffeine-indicator   im-config                 rubygems-integration
catdoc               indicator-application      rygel
cmake                 indicator-power            samba
code                  indicators                  seaborn
```

Question 5

A terminal window titled "Terminal" with a dark background and light text. It shows a series of commands and their outputs for navigating the file system. The prompt is "jdpaz@cis106vm". The commands and outputs are: "cd /" (output: "/"), "cd home" (output: "/home"), "cd jdpaz" (output: "/home/jdpaz"), "cd Downloads/" (output: "/home/jdpaz/Downloads"), and "pwd" (output: "/home/jdpaz/Downloads"). The prompt changes to "Downloads\$" after the "cd Downloads/" command.

```
jdpaz@cis106vm ~$ cd /
jdpaz@cis106vm /$ cd home
jdpaz@cis106vm home$ cd jdpaz
jdpaz@cis106vm ~$ cd Downloads/
jdpaz@cis106vm Downloads$ pwd
/home/jdpaz/Downloads
jdpaz@cis106vm Downloads$
```

A terminal window titled "Terminal" with a dark background and light text. It shows a series of commands and their outputs for navigating the file system. The prompt is "jdpaz@cis106vm Downloads\$". The commands and outputs are: "cd /usr/share/themes/Adwaita" (output: "/usr/share/themes/Adwaita"), "cd ~/Documents/" (output: "/home/jdpaz/Documents"), and "pwd" (output: "/home/jdpaz/Documents"). The prompt changes to "Documents\$" after the "cd ~/Documents/" command.

```
jdpaz@cis106vm Downloads$ cd /usr/share/themes/Adwaita
jdpaz@cis106vm Adwaita$ cd ~/Documents/
jdpaz@cis106vm Documents$ pwd
/home/jdpaz/Documents
jdpaz@cis106vm Documents$
```