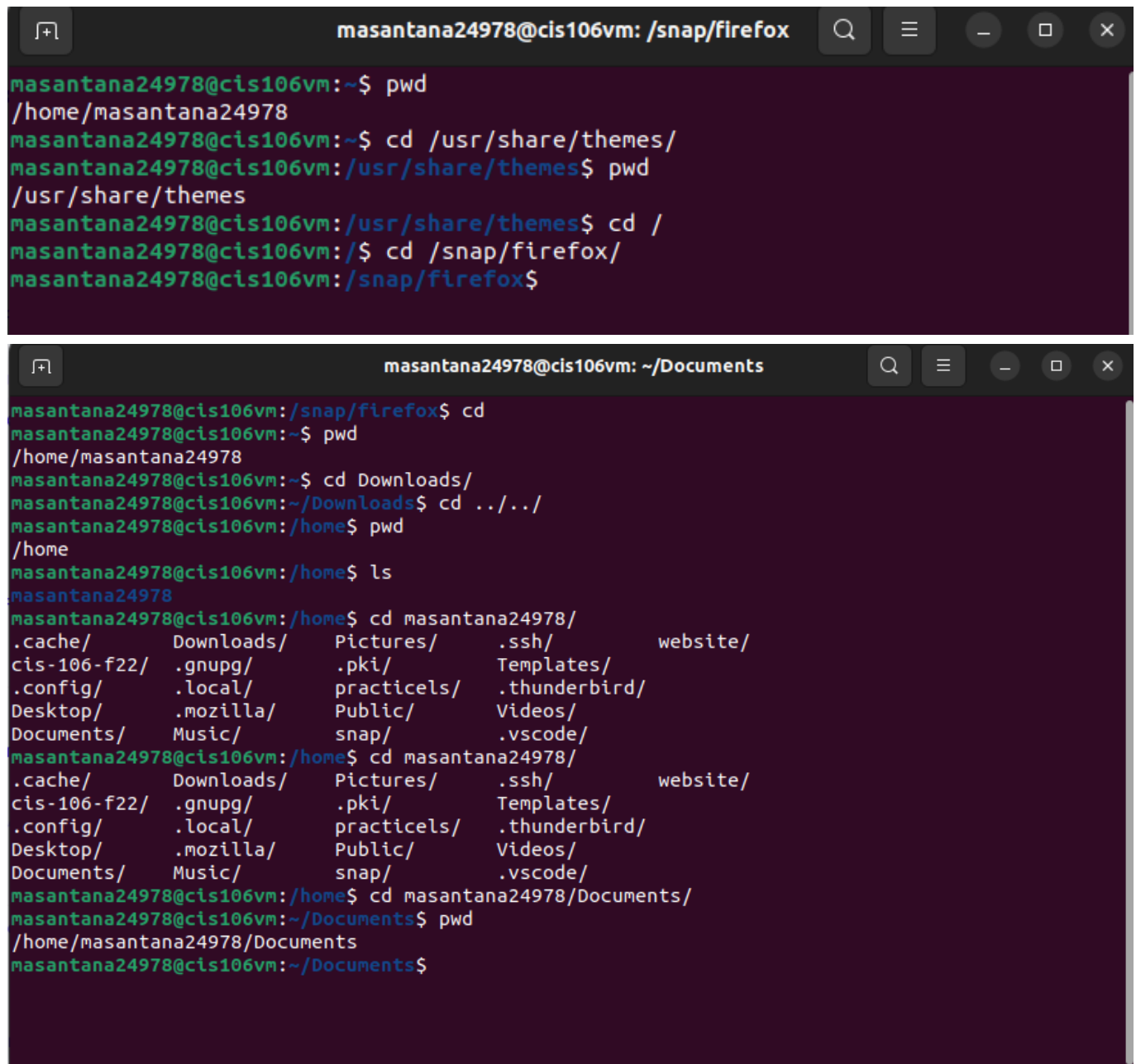


Lab 4 Submission

Question 1



The image contains two terminal window screenshots. The first terminal window has a title bar 'masantana24978@cis106vm: /snap/firefox' and shows a sequence of commands: 'pwd' (returns /home/masantana24978), 'cd /usr/share/themes/' (returns /usr/share/themes), and 'cd /' (returns /). The second terminal window has a title bar 'masantana24978@cis106vm: ~/Documents' and shows a sequence of commands: 'cd' (returns /snap/firefox), 'pwd' (returns /home/masantana24978), 'cd Downloads/' (returns ~/Downloads), 'cd ../../' (returns /home), 'ls' (lists directory contents), 'cd masantana24978/' (returns /home), and 'cd masantana24978/Documents/' (returns ~/Documents).

```
masantana24978@cis106vm:~$ pwd
/home/masantana24978
masantana24978@cis106vm:~$ cd /usr/share/themes/
masantana24978@cis106vm:/usr/share/themes$ pwd
/usr/share/themes
masantana24978@cis106vm:/usr/share/themes$ cd /
masantana24978@cis106vm:/$ cd /snap/firefox/
masantana24978@cis106vm:/snap/firefox$

masantana24978@cis106vm:/snap/firefox$ cd
masantana24978@cis106vm:~$ pwd
/home/masantana24978
masantana24978@cis106vm:~$ cd Downloads/
masantana24978@cis106vm:~/Downloads$ cd ../../
masantana24978@cis106vm:/home$ pwd
/home
masantana24978@cis106vm:/home$ ls
masantana24978
masantana24978@cis106vm:/home$ cd masantana24978/
.cache/      Downloads/  Pictures/   .ssh/       website/
cis-106-f22/ .gnupg/    .pki/      Templates/
.config/     .local/    practicels/ .thunderbird/
Desktop/     .mozilla/  Public/     Videos/
Documents/   Music/     snap/       .vscode/
masantana24978@cis106vm:/home$ cd masantana24978/
.cache/      Downloads/  Pictures/   .ssh/       website/
cis-106-f22/ .gnupg/    .pki/      Templates/
.config/     .local/    practicels/ .thunderbird/
Desktop/     .mozilla/  Public/     Videos/
Documents/   Music/     snap/       .vscode/
masantana24978@cis106vm:/home$ cd masantana24978/Documents/
masantana24978@cis106vm:~/Documents$ pwd
/home/masantana24978/Documents
masantana24978@cis106vm:~/Documents$
```

Question 2

```

masantana24978@cis106vm:~/Documents$ pwd
/home/masantana24978/Documents
masantana24978@cis106vm:~/Documents$ cd /usr/share
masantana24978@cis106vm:~/Documents$ ls /home/masantana24978/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
masantana24978@cis106vm:~/Documents$ cd /home/masantana24978/lab4files/
masantana24978@cis106vm:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 masantana24978 masantana24978 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 masantana24978 masantana24978 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 masantana24978 masantana24978 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 masantana24978 masantana24978 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 masantana24978 masantana24978 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 masantana24978 masantana24978 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 masantana24978 masantana24978 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 masantana24978 masantana24978 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 137453 Feb 22 2022 website.html
masantana24978@cis106vm:~/lab4files$ ls -lh
ls: ls: command not found
masantana24978@cis106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 masantana24978 masantana24978 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 masantana24978 masantana24978 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 masantana24978 masantana24978 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 masantana24978 masantana24978 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 masantana24978 masantana24978 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 masantana24978 masantana24978 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 masantana24978 masantana24978 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 masantana24978 masantana24978 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 135K Feb 22 2022 website.html
masantana24978@cis106vm:~/lab4files$

```

```

masantana24978@cis106vm: ~/lab4files
masantana24978@cis106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 masantana24978 masantana24978 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 masantana24978 masantana24978 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 masantana24978 masantana24978 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 masantana24978 masantana24978 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 masantana24978 masantana24978 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 masantana24978 masantana24978 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 masantana24978 masantana24978 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 masantana24978 masantana24978 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 135K Feb 22 2022 website.html
masantana24978@cis106vm:~/lab4files$ ls -l
total 6.5M
-rw-rw-r-- 1 masantana24978 masantana24978 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 masantana24978 masantana24978 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 masantana24978 masantana24978 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 masantana24978 masantana24978 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 masantana24978 masantana24978 135K Feb 22 2022 website.html
-rw-rw-r-- 1 masantana24978 masantana24978 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 masantana24978 masantana24978 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 masantana24978 masantana24978 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 masantana24978 masantana24978 76 Feb 22 2022 helloWorld.c
masantana24978@cis106vm:~/lab4files$

```

```
masantana24978@cis106vm: ~/lab4files
total 6.5M
1591153 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1591158 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1591161 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1591162 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1591160 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1591165 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1591157 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1591159 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1591164 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1591163 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
masantana24978@cis106vm:~/lab4files$ ls -Xr
sample.xls  Tux.png  Ubuntu.pdf  Linux.pdf  countries.json  website.html  document.d
ocx  csvfile.csv  helloWorld.c  globe.avi
masantana24978@cis106vm:~/lab4files$
```

Question 3

```

s  Terminal Oct 14 17:25 masantana24978@cis106vm: ~/Downloads

masantana24978@cis106vm:~$ cd /etc/
masantana24978@cis106vm:/etc$ tree /home/masantana24978/lab4files/
/home/masantana24978/lab4files/
├── countries.json
├── csvfile.csv
├── document.docx
├── globe.avi
├── helloWorld.c
├── Linux.pdf
├── sample.xls
├── Tux.png
├── Ubuntu.pdf
└── website.html

0 directories, 10 files
masantana24978@cis106vm:/etc$ cd ~/Downloads/
masantana24978@cis106vm:~/Downloads$ tree -fph ../lab4files/
[drwxrwxr-x 4.0K] ../lab4files
├── [-rw-rw-r-- 20K] ../lab4files/countries.json
├── [-rw-rw-r-- 277K] ../lab4files/csvfile.csv
├── [-rw-rw-r-- 746K] ../lab4files/document.docx
├── [-rw-rw-r-- 725K] ../lab4files/globe.avi
├── [-rw-rw-r-- 76] ../lab4files/helloWorld.c
├── [-rw-rw-r-- 2.5M] ../lab4files/Linux.pdf
├── [-rw-rw-r-- 8.5K] ../lab4files/sample.xls
├── [-rw-rw-r-- 42K] ../lab4files/Tux.png
├── [-rw-rw-r-- 2.0M] ../lab4files/Ubuntu.pdf
└── [-rw-rw-r-- 134K] ../lab4files/website.html

0 directories, 10 files
masantana24978@cis106vm:~/Downloads$

```

```

Terminal masantana24978@cis106vm: ~/Downloads

masantana24978@cis106vm:~/Downloads$ tree -tug ../lab4files/
[masantana24978 masantana24978] ../lab4files/
├── [masantana24978 masantana24978] Linux.pdf
├── [masantana24978 masantana24978] Tux.png
├── [masantana24978 masantana24978] Ubuntu.pdf
├── [masantana24978 masantana24978] sample.xls
├── [masantana24978 masantana24978] globe.avi
├── [masantana24978 masantana24978] document.docx
├── [masantana24978 masantana24978] csvfile.csv
├── [masantana24978 masantana24978] countries.json
├── [masantana24978 masantana24978] website.html
└── [masantana24978 masantana24978] helloWorld.c

0 directories, 10 files
masantana24978@cis106vm:~/Downloads$ exa --help
"--help": No such file or directory (os error 2)
masantana24978@cis106vm:~/Downloads$ exa --help
Usage:
  exa [options] [files...]

META OPTIONS
  -?, --help          show list of command-line options
  -v, --version       show version of exa

DISPLAY OPTIONS
  -1, --oneline       display one entry per line
  -l, --long          display extended file metadata as a table
  -G, --grid          display entries as a grid (default)
  -x, --across        sort the grid across, rather than downwards
  -R, --recurse       recurse into directories
  -T, --tree          recurse into directories as a tree
  -F, --classify      display type indicator by file names
  --colo[u]r=WHEN    when to use terminal colours (always, auto, never)
  --colo[u]r-scale    highlight levels of file sizes distinctly
  --icons             display icons
  --no-icons          don't display icons (always overrides --icons)

FILTERING AND SORTING OPTIONS
  -a, --all           show hidden and 'dot' files
  -d, --list-dirs     list directories as files; don't list their contents
  -L, --level DEPTH  limit the depth of recursion
  -r, --reverse       reverse the sort order
  -s, --sort SORT_FIELD which field to sort by
  --group-directories-first list directories before other files
  -D, --only-dirs     list only directories
  -I, --ignore-glob GLOBS glob patterns (pipe-separated) of files to ignore
Valid sort fields:   name, Name, extension, Extension, size, type,
                    modified, accessed, created, inode, and none.

```

```

s Terminal Oct 14 17:34 masantana24978@c1s106vm: ~/Downloads

masantana24978@c1s106vm:~/Downloads$ exa ~/lab4files/ -l
.rw-rw-r-- 20k masantana24978 22 Feb 14:16 countries.json
.rw-rw-r-- 284k masantana24978 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k masantana24978 22 Feb 14:13 document.docx
.rw-rw-r-- 742k masantana24978 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 masantana24978 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M masantana24978 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k masantana24978 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k masantana24978 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M masantana24978 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k masantana24978 22 Feb 14:16 website.html
masantana24978@c1s106vm:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User Date Modified Name
.rw-rw-r-- 20k masantana24978 22 Feb 14:16 countries.json
.rw-rw-r-- 284k masantana24978 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k masantana24978 22 Feb 14:13 document.docx
.rw-rw-r-- 742k masantana24978 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 masantana24978 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M masantana24978 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k masantana24978 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k masantana24978 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M masantana24978 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k masantana24978 22 Feb 14:16 website.html
masantana24978@c1s106vm:~/Downloads$ exa ~/lab4files/ -lh --no-user -U
Permissions Size Date Created Name
.rw-rw-r-- 20k 14 Oct 16:43 countries.json
.rw-rw-r-- 284k 14 Oct 16:43 csvfile.csv
.rw-rw-r-- 764k 14 Oct 16:43 document.docx
.rw-rw-r-- 742k 14 Oct 16:43 globe.avi
.rw-rw-r-- 76 14 Oct 16:43 helloWorld.c
.rw-rw-r-- 2.6M 14 Oct 16:43 Linux.pdf
.rw-rw-r-- 8.7k 14 Oct 16:43 sample.xls
.rw-rw-r-- 43k 14 Oct 16:43 Tux.png
.rw-rw-r-- 2.1M 14 Oct 16:43 Ubuntu.pdf
.rw-rw-r-- 137k 14 Oct 16:43 website.html
masantana24978@c1s106vm:~/Downloads$

```

Question 4 Challenge Question

```

masantana24978@cis106vm: /usr/share
masantana24978@cis106vm:/proc/sys/net/ipv4$ cd ../
masantana24978@cis106vm:/proc/sys/net$ ls /usr/share/backgrounds/
Blue_flower_by_Elena_Stravoravdi.jpg
canvas_by_roytanck.jpg
Cherry_Tree_in_Lakones_by_elenastravoravdi.jpg
contest
DSC2943_by_kcpru.jpg
Jammy-Jellyfish_WP_4096x2304_Grey.png
jj_dark_by_Hiking93.jpg
jj_light_by_Hiking93.jpg
Mirror_by_Uday_Nakade.jpg
Optical_Fibers_in_Dark_by_Elena_Stravoravdi.jpg
ubuntu2_by_arman1992.jpg
ubuntu_by_arman1992.jpg
ubuntu-default-greyscale-wallpaper.png
warty-final-ubuntu.png
masantana24978@cis106vm:/proc/sys/net$ ls home/masantana24978/cis-106-f22/
ls: cannot access 'home/masantana24978/cis-106-f22/': No such file or directory
masantana24978@cis106vm:/proc/sys/net$ ls /home/masantana24978/cis-106-f22/
cheatsheets finalproject Labs weekreports
masantana24978@cis106vm:/proc/sys/net$ cd /home/
masantana24978@cis106vm:/home$ ls /home/masantana24978/Downloads/
Caveat Caveat.zip lab4files.zip Ms_Madi Ms_Madi.zip Silkscreen Silkscreen.zip
masantana24978@cis106vm:/home$ cd /dev/disk/by-id/
masantana24978@cis106vm:/dev/disk/by-id$ ls -la
total 0
drwxr-xr-x 2 root root 140 Oct 13 17:51 .
drwxr-xr-x 8 root root 160 Oct 13 17:50 ..
lrwxrwxrwx 1 root root 9 Oct 13 17:51 ata-VBOX_CD-ROM_VB2-01700376 -> ../../sr0
lrwxrwxrwx 1 root root 9 Oct 13 17:50 ata-VBOX_HARDDISK_VB4e6370e2-92399a30 -> ../../sda
lrwxrwxrwx 1 root root 10 Oct 13 17:50 ata-VBOX_HARDDISK_VB4e6370e2-92399a30-part1 -> ../../sda1
lrwxrwxrwx 1 root root 10 Oct 13 17:50 ata-VBOX_HARDDISK_VB4e6370e2-92399a30-part2 -> ../../sda2
lrwxrwxrwx 1 root root 10 Oct 13 17:50 ata-VBOX_HARDDISK_VB4e6370e2-92399a30-part3 -> ../../sda3
masantana24978@cis106vm:/dev/disk/by-id$ cd
masantana24978@cis106vm:~$ cd /usr/share/themes/
masantana24978@cis106vm:/usr/share/themes$ ls -S
Adwaita Yaru Yaru-dark-hdpi Yaru-olive-dark Yaru-red-dark
Adwaita-dark Yaru-bark Yaru-dark-xhdpi Yaru-prussiangreen Yaru-sage
Default Yaru-bark-dark Yaru-hdpi Yaru-prussiangreen-dark Yaru-sage-dark
Emacs Yaru-blue Yaru-magenta Yaru-purple Yaru-viridian
HighContrast Yaru-blue-dark Yaru-magenta-dark Yaru-purple-dark Yaru-viridian-dark
Raleigh Yaru-dark Yaru-olive Yaru-red Yaru-xhdpi
masantana24978@cis106vm:/usr/share/themes$ cd ../
masantana24978@cis106vm:/usr/share$ ls -X
accountsservice gnome-todo pam
aclocal gnome-tweaks pam-configs
acpi-support gnome-video-effects perl
adduser gnupg perl5
aisleriot grilo-plugins perl-openssl-defaults
alacarte groff pipewire
alsa grub pixmaps
alsa-base grub-gfxpayload-lists pkgconfig
alsa-card-profile gst-plugins-base plymouth
appdata gtk-doc pnm2ppa
applications gtk-engines pocketsphinx
apport gtksourceview-4 polkit-1
apps guile poppler
adwaita-theme

```



```

es Visual Studio Code Oct 15
masantana24978@cis106vm: /usr/share

enchant-2      libinput      tilix
eog            liblangtag    totem
epiphany-browser liblouis      tracker3
evince         liblouisutdm  tracker3-miners
evolution-data-server libmysofa     transmission
figlet         libreoffice   ubuntu
file           libvenge      ubuntu-drivers-common
file-roller    libthai       ubuntu-release-upgrader
fish           libwacom      ubuntu-wayland
flameshot      lightdm       ucf
fontconfig     lintian       ufw
fonts          linux-sound-base unattended-upgrades
fonts-droid-fallback locale         unity
fonts-sil-abyssinica locale-langpack update-manager
fonts-sil-padauk locales        update-notifier
foo2qpd1       lto-disabled-list upstart
foo2zjs        m2300w        usb-creator
fwupd          man           usb_modeswitch
gamemode       man-db        vala
games          mate-panel    vim
gcc            maven-repo    vlc
GConf          media-player-info vulkan
gdb            menu          w3m
gdm            mesa-demos    wayland-sessions
geany          metainfo      X11
gedit          mfx           xapps-common
GeoIP          mime          xdg-desktop-portal
gettext        misc          xml
ghostscript    mobile-broadband-provider-info xml-core
git-core       ModemManager xsessions
gitweb         mousetweaks   yelp
glade          mythes        yelp-xsl
glvnd          nano          zenity
gnome          nautilus      zoneinfo
gnome-applets  nautilus-python zoneinfo-icu
gnome-background-properties nautilus-share zsh
gnome-bluetooth nemo          gir-1.0
gnome-control-center netpbm        glib-2.0
gnome-initial-setup netplan       gnome-bluetooth-3.0
gnome-logs     numpy3        goa-1.0
gnome-mahjongg open-vm-tools gstreamer-1.0
gnome-panel    openvpn       gtk-4.0
gnome-remote-desktop orca          gtksourceview-2.0
gnome-session  os-prober     gtksourceview-3.0
gnome-settings-daemon p11-kit       gupnp-dlna-2.0
gnome-shell    package-data-downloads org.gnome.Characters
gnome-system-monitor PackageKit     drirc.d

masantana24978@cis106vm: /usr/share$

```