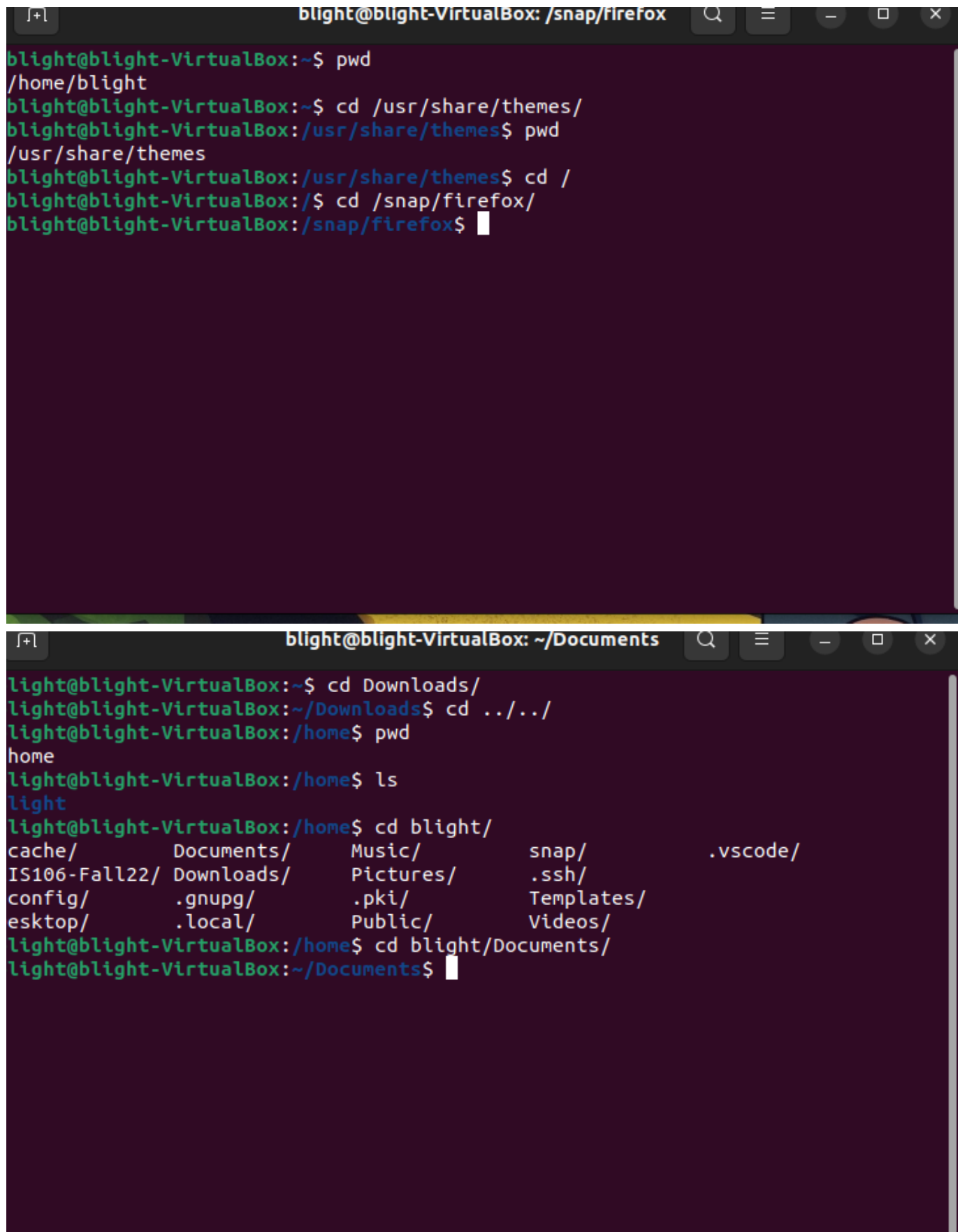


# Lab 4 Submission

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## Question 1



The image contains two screenshots of a terminal window from a virtual machine named 'blight-VirtualBox'.

The first screenshot shows the user 'blight' at the prompt 'blight@blight-VirtualBox: /snap/firefox'. The terminal history is as follows:

```
blight@blight-VirtualBox:~$ pwd
/home/blight
blight@blight-VirtualBox:~$ cd /usr/share/themes/
blight@blight-VirtualBox:/usr/share/themes$ pwd
/usr/share/themes
blight@blight-VirtualBox:/usr/share/themes$ cd /
blight@blight-VirtualBox:/$ cd /snap/firefox/
blight@blight-VirtualBox:/snap/firefox$
```

The second screenshot shows the user 'light' at the prompt 'light@blight-VirtualBox: ~/Documents'. The terminal history is as follows:

```
light@blight-VirtualBox:~$ cd Downloads/
light@blight-VirtualBox:~/Downloads$ cd ../../
light@blight-VirtualBox:/home$ pwd
home
light@blight-VirtualBox:/home$ ls
light
light@blight-VirtualBox:/home$ cd blight/
cache/      Documents/  Music/      snap/       .vscode/
IS106-Fall22/ Downloads/  Pictures/   .ssh/
config/     .gnupg/    .pki/       Templates/
esktop/     .local/    Public/     Videos/
light@blight-VirtualBox:/home$ cd blight/Documents/
light@blight-VirtualBox:~/Documents$
```

## Question 2

```
blight@blight-VirtualBox:~/Downloads$ cd /usr/share/
blight@blight-VirtualBox:/usr/share$ ls /home/blight/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
blight@blight-VirtualBox:/usr/share$ cd /home/blight/lab4files/
blight@blight-VirtualBox:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 blight blight 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 blight blight 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 blight blight 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 blight blight 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 blight blight 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 blight blight 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 blight blight 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 blight blight 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 blight blight 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 blight blight 137453 Feb 22 2022 website.html
blight@blight-VirtualBox:~/lab4files$
```

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

```
blight@blight-VirtualBox: ~/lab4files
blight@blight-VirtualBox:~/lab4files$ ls -lhSgGl
total 6.5M
1986153 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1986155 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1986158 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1986159 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1986157 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1986162 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1986154 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1986156 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1986161 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1986160 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
blight@blight-VirtualBox:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html   csvfile.csv    globe.avi
blight@blight-VirtualBox:~/lab4files$
```

### Question 3

```
blight@blight-VirtualBox:~$ cd /etc/
blight@blight-VirtualBox:/etc$ tree ~/lab4files/
/home/blight/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
blight@blight-VirtualBox:/etc$ cd ~/Downloads/
blight@blight-VirtualBox:~/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
blight@blight-VirtualBox:~/Downloads$
```

```
blight@blight-VirtualBox: ~/Downloads

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

0 directories, 10 files
blight@blight-VirtualBox:~/Downloads$ ex
```

```
blight@blight-VirtualBox: ~/Downloads
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -l
.rw-rw-r-- 20k blight 22 Feb 14:16 countries.json
.rw-rw-r-- 284k blight 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k blight 22 Feb 14:13 document.docx
.rw-rw-r-- 742k blight 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 blight 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M blight 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k blight 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k blight 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M blight 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k blight 22 Feb 14:16 website.html
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User Date Modified Name
.rw-rw-r-- 20k blight 22 Feb 14:16 countries.json
.rw-rw-r-- 284k blight 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k blight 22 Feb 14:13 document.docx
.rw-rw-r-- 742k blight 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 blight 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M blight 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k blight 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k blight 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M blight 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k blight 22 Feb 14:16 website.html
blight@blight-VirtualBox:~/Downloads$
```

```

blight@blight-VirtualBox: ~/Downloads
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -l
.rw-rw-r-- 20k blight 22 Feb 14:16 countries.json
.rw-rw-r-- 284k blight 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k blight 22 Feb 14:13 document.docx
.rw-rw-r-- 742k blight 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 blight 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M blight 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k blight 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k blight 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M blight 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k blight 22 Feb 14:16 website.html
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User Date Modified Name
.rw-rw-r-- 20k blight 22 Feb 14:16 countries.json
.rw-rw-r-- 284k blight 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k blight 22 Feb 14:13 document.docx
.rw-rw-r-- 742k blight 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 blight 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M blight 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k blight 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k blight 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M blight 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k blight 22 Feb 14:16 website.html
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -lh --no--user -U
exa: Unknown argument --no--user
blight@blight-VirtualBox:~/Downloads$ exa ~/lab4files/ -lh --no-user -U
Permissions Size Date Created Name
.rw-rw-r-- 20k 12 Oct 16:40 countries.json
.rw-rw-r-- 284k 12 Oct 16:40 csvfile.csv
.rw-rw-r-- 764k 12 Oct 16:40 document.docx
.rw-rw-r-- 742k 12 Oct 16:40 globe.avi
.rw-rw-r-- 76 12 Oct 16:40 helloWorld.c
.rw-rw-r-- 2.6M 12 Oct 16:40 Linux.pdf
.rw-rw-r-- 8.7k 12 Oct 16:40 sample.xls
.rw-rw-r-- 43k 12 Oct 16:40 Tux.png
.rw-rw-r-- 2.1M 12 Oct 16:40 Ubuntu.pdf
.rw-rw-r-- 137k 12 Oct 16:40 website.html
blight@blight-VirtualBox:~/Downloads$

```

## Question 4 Challenge Question



```
blight@blight-VirtualBox: /proc/sys/net

blight@blight-VirtualBox:~$ pwd
/home/blight
blight@blight-VirtualBox:~$ cd /usr/share/icons/default/
blight@blight-VirtualBox:/usr/share/icons/default$ pwd
/usr/share/icons/default
blight@blight-VirtualBox:/usr/share/icons/default$ cd /proc/sys/net/ipv4
blight@blight-VirtualBox:/proc/sys/net/ipv4$ pwd
/proc/sys/net/ipv4
blight@blight-VirtualBox:/proc/sys/net/ipv4$ cd ../
blight@blight-VirtualBox:/proc/sys/net$ ls
. lessshst                .vscode/
. local/                  website/
Music/                    .youtube.png
.PCCC.png
blight@blight-VirtualBox:/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
blight@blight-VirtualBox:/proc/sys/net$ ls /home/blight/CIS106-Fall22/
CheatSheets 'Finial Project' Labs 'Week Reports'
blight@blight-VirtualBox:/proc/sys/net$ ls /home/blight/Downloads/
lab4files.zip
'Linux Workshop Ubuntu Software installation cheat sheet.png'
MyWallpapers
Shadows_Into_Light
Shadows_Into_Light.zip
wallpaper.jpg
'Week 2 report.docx'
blight@blight-VirtualBox:/proc/sys/net$
```

```

blight@blight-VirtualBox: /dev/disk/by-id
blight@blight-VirtualBox: /proc/sys/net$ cd /dev/disk/by-id/
blight@blight-VirtualBox: /dev/disk/by-id$ ls -a
.
..
ata-VBOX_HARDDISK_VB7e614029-08983e31-part1
ata-VBOX_HARDDISK_VB7e614029-08983e31-part2
ata-VBOX_HARDDISK_VB7e614029-08983e31-part3
ata-VBOX_CD-ROM_VB2-01700376
ata-VBOX_HARDDISK_VB7e614029-08983e31
blight@blight-VirtualBox: /dev/disk/by-id$

```

```

blight@blight-VirtualBox: /dev/disk/by-id$ ls -t /usr/share/themes/
Yaru
Yaru-bark
Yaru-bark-dark
Yaru-blue
Yaru-blue-dark
Yaru-dark
Yaru-dark-hdpi
Yaru-dark-xhdpi
Yaru-hdpi
Yaru-magenta
Yaru-magenta-dark
Yaru-olive
Yaru-olive-dark
Yaru-prussiangreen
Yaru-prussiangreen-dark
Yaru-purple
Yaru-purple-dark
Yaru-red
Yaru-red-dark
Yaru-sage
Yaru-sage-dark
Yaru-viridian
Yaru-viridian-dark
Yaru-xhdpi
Default
Emacs
Raleigh
Adwaita
Adwaita-dark
HighContrast

blight@blight-VirtualBox: /dev/disk/by-id$ ls -X /usr/share/
accountsservice      gnome-shell          pam-configs
clocal               gnome-software      perl
cpl-support          gnome-system-monitor perl5
dduser               gnome-todo           perl-openssl-defaults
isleriot             gnome-tweaks         pipewire
lacarte              gnome-video-effects pixmaps
lsa                  gnupg                pkgconfig
lsa-base             grilo-plugins        plymouth
lsa-card-profile     groff                pnm2ppa
lpdata              grub                 pocketsphinx
lp-info              grub-gfxpayload-lists polkit-1
pplications          gst-plugins-base     poppler
pport               gtk-doc              ppd
pps                 gtk-engines          ppp
pturl               gtksourceview-4      publicsuffix
spell               guile                pulseaudio
vahi                 gupnp-av             pyshared
backgrounds          gvfs                 python3
base-files           help                 python-apt
base-passwd          help-langpack        qt5
bash-completion      hplip                readline
binfmts              hunspell              remmina
branding              hwdata                rhythmbox
rltty                 hyphen                rig
rug                  i18n                  rsync
build-essential      ibus                  rsyslog
base-certificates    ibus-table            rubygems-integration
caffeine-indicator   icons                 rygel
atdoc                 ImageMagick-6         samba
make                  im-config             seahorse
ogl                   indicator-application secureboot
olor                  indicator-power        sensible-utils
olord                 indicators             session-migration

```