

# Lab 3 | Installing software and navigating the file system | Answers

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Assignment description [here](#)

## Question 1

1. Which command did you use to search for the themes and to install them?

- apt search - to search for the package
- sudo apt install (name of package)

1. Which commands did you use to find and install the web browser? sudo apt install firefox 3.1 What is the name of the package? games-racing 3.2 What dependencies are needed in order to install the package? (you can either take a screenshot of the terminal or copy and paste from the terminal)

antigravitaattori armagetronad armagetronad-common bloboats extremetuxracer extremetuxracer-data fonts-cantarell fonts-noto-core fonts-noto-ui-core freeglut3 games-racing games-tasks gltron liballegro4.4 libalut0 libccd2 libclanapp-1.0v5 libdevil1c2 libftgl2 libglew2.1 libglfw3 libilmbase24 liblua5.1-0 libmcpp0 libmng2 libnetpbm10 libode8 libphysfs1 libplib1 libraqm0 libsdl-net1.2 libsdl-sound1.2 libsdl2-image-2.0-0 libsFML-audio2.5 libsFML-graphics2.5 libsFML-system2.5 libsFML-window2.5 libsquish0 libtinyxml2-6a libtinyxml2.6.2v5 libxdg-basedir1 netpbm pink-pony pink-pony-data pyracers stormbaancoureur stormbaancoureur-data supertuxkart supertuxkart-data tasksel tasksel-data torcs torcs-data trigger-rally trigger-rally-data trophy trophy-data ttf-dejavu-core xmoto xmoto-data xracer

3.3 How much disk space will the package utilize after installation? 1,611 MB of additional disk space will be used.

## Question 2

Ubuntu-Cis106 F21 (Snapshot 1Lab2 complete) [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

```
Applications Places
mlproano@mlproano-VirtualBox: ~/Documents

mlproano@mlproano-VirtualBox:~$ pwd
/home/mlproano
mlproano@mlproano-VirtualBox:~$ cd /usr/share/themes
bash: cd /usr/share/themes: No such file or directory
mlproano@mlproano-VirtualBox:~$ cd /usr/share/themes
mlproano@mlproano-VirtualBox:~$ cd /usr/share/themes$ pwd
/usr/share/themes
mlproano@mlproano-VirtualBox:~$ cd /etc/firefox/pref
mlproano@mlproano-VirtualBox:~$ cd /etc/firefox/pref$ cd
mlproano@mlproano-VirtualBox:~$ cd Downloads
mlproano@mlproano-VirtualBox:~$ cd Downloads$ cd
mlproano@mlproano-VirtualBox:~$ cd Documents
mlproano@mlproano-VirtualBox:~$ cd Documents$
```

### Question 3

```
mlproano@mlproano-VirtualBox: ~  
mlproano@mlproano-VirtualBox: ~  
mlproano@mlproano-VirtualBox:~$ ls downloads  
ls: cannot access 'downloads': No such file or directory  
mlproano@mlproano-VirtualBox:~$ ls Downloads  
car1.jpeg car2.jpg car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -a Downloads  
. .. car1.jpeg car2.jpg car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -al Downloads  
total 444  
drwxr-xr-x  2 mlproano mlproano   4096 Oct  6 13:34 .  
drwxr-xr-x 20 mlproano mlproano   4096 Oct  6 13:29 ..  
-rw-rw-r--  1 mlproano mlproano  80338 Oct  6 13:33 car1.jpeg  
-rw-rw-r--  1 mlproano mlproano 351907 Oct  6 13:34 car2.jpg  
-rw-rw-r--  1 mlproano mlproano   9215 Oct  6 13:34 car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -alh Downloads  
total 444K  
drwxr-xr-x  2 mlproano mlproano 4.0K Oct  6 13:34 .  
drwxr-xr-x 20 mlproano mlproano 4.0K Oct  6 13:29 ..  
-rw-rw-r--  1 mlproano mlproano  79K Oct  6 13:33 car1.jpeg  
-rw-rw-r--  1 mlproano mlproano 344K Oct  6 13:34 car2.jpg  
-rw-rw-r--  1 mlproano mlproano  9.0K Oct  6 13:34 car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -h Downloads  
car1.jpeg car2.jpg car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -Gh Downloads  
car1.jpeg car2.jpg car3.jpeg  
car1.jpeg car2.jpg car3.jpeg  
mlproano@mlproano-VirtualBox:~$ ls -lhG  
total 40K  
drwxrwxr-x  7 mlproano 4.0K Sep 30 19:12 cis106  
drwxr-xr-x  2 mlproano 4.0K Oct  5 15:50 Desktop  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Documents  
drwxr-xr-x  2 mlproano 4.0K Oct  6 13:34 Downloads  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Music  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Pictures  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Public  
drwxr-xr-x  3 mlproano 4.0K Sep 29 23:07 snap  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Templates  
drwxr-xr-x  2 mlproano 4.0K Sep 29 22:02 Videos  
mlproano@mlproano-VirtualBox:~$
```

## Question 4

```
mlproano@mlproano-VirtualBox:~$ tree ~Downloads
~Downloads [error opening dir]

0 directories, 0 files
mlproano@mlproano-VirtualBox:~$ tree ~/Downloads
/home/mlproano/Downloads
├── car1.jpeg
├── car2.jpg
└── car3.jpeg
```

```
0 directories, 3 files
mlproano@mlproano-VirtualBox:~$ tree -pug
.
├── [drwxrwxr-x mlproano mlproano] cis106
│   ├── [drwxrwxr-x mlproano mlproano] images
│   │   ├── [-rw-rw-rw- mlproano mlproano] alicedependancies.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] lab3q2.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] Lab3Q3.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] lab3q3pt2.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] question2.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] question3.png
│   │   ├── [-rw-rw-rw- mlproano mlproano] question4.png
│   │   └── [-rw-rw-rw- mlproano mlproano] question5.png
│   ├── [-rw-rw-r-- mlproano mlproano] img2.png
│   ├── [-rw-rw-r-- mlproano mlproano] img3.png
│   ├── [-rw-rw-r-- mlproano mlproano] img.png
│   ├── [-rw-rw-r-- mlproano mlproano] lab1.md
│   ├── [-rw-rw-r-- mlproano mlproano] lab1.pdf
│   └── [drwxrwxr-x mlproano mlproano] labs
│       ├── [-rw-rw-rw- mlproano mlproano] Desktop1.png
│       ├── [-rw-rw-rw- mlproano mlproano] desktop2.png
│       ├── [-rw-rw-rw- mlproano mlproano] notes-0.md
│       └── [-rw-rw-rw- mlproano mlproano] notes-0.pdf
│   └── [drwxrwxr-x mlproano mlproano] Labs
│       ├── [-rw-rw-r-- mlproano mlproano] lab2.md
│       └── [-rw-rw-r-- mlproano mlproano] lab3.md
├── [drwxrwxr-x mlproano mlproano] notes
│   └── [-rw-rw-r-- mlproano mlproano] README.md
├── [drwxr-xr-x mlproano mlproano] Desktop
│   └── [-rw-r--r-- mlproano mlproano] org.gnome.Terminal.desktop
├── [drwxr-xr-x mlproano mlproano] Documents
├── [drwxr-xr-x mlproano mlproano] Downloads
│   ├── [-rw-rw-r-- mlproano mlproano] car1.jpeg
│   ├── [-rw-rw-r-- mlproano mlproano] car2.jpg
│   └── [-rw-rw-r-- mlproano mlproano] car3.jpeg
├── [drwxr-xr-x mlproano mlproano] Music
├── [drwxr-xr-x mlproano mlproano] Pictures
├── [drwxr-xr-x mlproano mlproano] Public
├── [drwxr-xr-x mlproano mlproano] snap
└── [drwxr-xr-x mlproano mlproano] code
    ├── [drwxr-xr-x mlproano mlproano] 75
    ├── [drwxr-xr-x mlproano mlproano] common
    └── [lrwxrwxrwx mlproano mlproano] current -> 75
```

```

18 directories, 24 files
mlproano@mlproano-VirtualBox:~$ tree ~pug/Downloads
~pug/Downloads [error opening dir]

0 directories, 0 files
mlproano@mlproano-VirtualBox:~$ tree -pug ~/Downloads
/home/mlproano/Downloads
├── [-rw-rw-r-- mlproano mlproano]  car1.jpeg
├── [-rw-rw-r-- mlproano mlproano]  car2.jpg
└── [-rw-rw-r-- mlproano mlproano]  car3.jpeg

0 directories, 3 files
mlproano@mlproano-VirtualBox:~$ tree -pugh ~/Downloads
/home/mlproano/Downloads
├── [-rw-rw-r-- mlproano mlproano 78K]  car1.jpeg
├── [-rw-rw-r-- mlproano mlproano 344K]  car2.jpg
└── [-rw-rw-r-- mlproano mlproano 9.0K]  car3.jpeg

0 directories, 3 files
mlproano@mlproano-VirtualBox:~$ tree -pught ~/Downloads
/home/mlproano/Downloads
├── [-rw-rw-r-- mlproano mlproano 78K]  car1.jpeg
├── [-rw-rw-r-- mlproano mlproano 344K]  car2.jpg
└── [-rw-rw-r-- mlproano mlproano 9.0K]  car3.jpeg

0 directories, 3 files
mlproano@mlproano-VirtualBox:~$ tree -pughtD ~/Downloads
/home/mlproano/Downloads
├── [-rw-rw-r-- mlproano mlproano 78K Oct  6 13:33]  car1.jpeg
├── [-rw-rw-r-- mlproano mlproano 344K Oct  6 13:34]  car2.jpg
└── [-rw-rw-r-- mlproano mlproano 9.0K Oct  6 13:34]  car3.jpeg

```

```

mlproano@mlproano-VirtualBox:~$ tree -H Downloads
<!DOCTYPE html>
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
  <meta name="Author" content="Made by 'tree'">
  <meta name="GENERATOR" content="$Version: $ tree v1.8.0 (c) 1996 - 2018 by Steve Baker, Thomas Moore, Fr
ancesc Rocher, Florian Sesser, Kyosuke Tokoro $">
  <title>Directory Tree</title>
  <style type="text/css">
    <!--
    BODY { font-family : ariel, monospace, sans-serif; }
    P { font-weight: normal; font-family : ariel, monospace, sans-serif; color: black; background-color: tr
ansparent; }

```

```

mlproano@mlproano-VirtualBox:~$ tree -Ho Downloads/ website.html
mlproano@mlproano-VirtualBox:~$ ls
cis106 Desktop Documents Downloads Music Pictures Public snap Templates Videos website.html
mlproano@mlproano-VirtualBox:~$ xdg-open website.html
mlproano@mlproano-VirtualBox:~$

```

## Question 5



```

mlproano@mlproano-VirtualBox:~$ wget http://archive.ubuntu.com/ubuntu/pool/universe/r/rust-exa/exa_0.9.0-4_amd64.deb
--2021-10-06 14:29:14-- http://archive.ubuntu.com/ubuntu/pool/universe/r/rust-exa/exa_0.9.0-4_amd64.deb
Resolving archive.ubuntu.com (archive.ubuntu.com)... 91.189.88.142, 91.189.88.152
Connecting to archive.ubuntu.com (archive.ubuntu.com)|91.189.88.142|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 301592 (295K) [application/x-debian-package]
Saving to: 'exa_0.9.0-4_amd64.deb'

exa_0.9.0-4_amd64.deb      100%[=====] 294.52K  712KB/s   in 0.4s

2021-10-06 14:29:15 (712 KB/s) - 'exa_0.9.0-4_amd64.deb' saved [301592/301592]

mlproano@mlproano-VirtualBox:~$ ls
cis106  Documents  exa_0.9.0-4_amd64.deb  Pictures  snap  Videos
Desktop Downloads Music      Public    Templates website.html

mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install ./exa_0.9.0-4_amd64.deb
[sudo] password for mlproano:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'exa' instead of './exa_0.9.0-4_amd64.deb'
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libevent-2.1-7 libgc1c2 libgnome-games-support-1-3
  libgnome-games-support-common libnatpmp1 libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  exa
0 upgraded, 1 newly installed, 0 to remove and 12 not upgraded.
Need to get 0 B/302 kB of archives.
After this operation, 890 kB of additional disk space will be used.
Get:1 /home/mlproano/exa_0.9.0-4_amd64.deb exa amd64 0.9.0-4 [302 kB]
Selecting previously unselected package exa.
(Reading database ... 237530 files and directories currently installed.)
Preparing to unpack .../mlproano/exa_0.9.0-4_amd64.deb ...
Unpacking exa (0.9.0-4) ...
Setting up exa (0.9.0-4) ...
Processing triggers for man-db (2.9.1-1) ...

2021-10-06 14:29:15 (712 KB/s) - 'exa_0.9.0-4_amd64.deb' saved [301592/301592]

mlproano@mlproano-VirtualBox:~$ ls
cis106  Documents  exa_0.9.0-4_amd64.deb  Pictures  snap  Videos
Desktop Downloads Music      Public    Templates website.html

mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install exa
exabgp      exactimage      exadrums      examl      example-content
mlproano@mlproano-VirtualBox:~$ sudo apt install ./exa_0.9.0-4_amd64.deb
[sudo] password for mlproano:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'exa' instead of './exa_0.9.0-4_amd64.deb'
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libevent-2.1-7 libgc1c2 libgnome-games-support-1-3
  libgnome-games-support-common libnatpmp1 libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  exa
0 upgraded, 1 newly installed, 0 to remove and 12 not upgraded.
Need to get 0 B/302 kB of archives.
After this operation, 890 kB of additional disk space will be used.
Get:1 /home/mlproano/exa_0.9.0-4_amd64.deb exa amd64 0.9.0-4 [302 kB]
Selecting previously unselected package exa.
(Reading database ... 237530 files and directories currently installed.)
Preparing to unpack .../mlproano/exa_0.9.0-4_amd64.deb ...
Unpacking exa (0.9.0-4) ...
Setting up exa (0.9.0-4) ...
Processing triggers for man-db (2.9.1-1) ...
mlproano@mlproano-VirtualBox:~$ exa -l Downloads
.rw-rw-r-- 80k mlproano 6 Oct 13:33 car1.jpeg

```

```
.rw-rw-r-- 351k mlproano 6 Oct 13:34 car2.jpg
.rw-rw-r-- 9.2k mlproano 6 Oct 13:34 car3.jpeg
mlproano@mlproano-VirtualBox:~$ exa -lmh Downloads
Permissions Size User      Date Modified Name
.rw-rw-r-- 80k mlproano 6 Oct 13:33 car1.jpeg
.rw-rw-r-- 351k mlproano 6 Oct 13:34 car2.jpg
.rw-rw-r-- 9.2k mlproano 6 Oct 13:34 car3.jpeg
```