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

Assignment description here

Question 1

1. Which command did you use to search for the themes and to install them? apt search 'gtk theme' sudo apt install breeze-gtk-theme

2. Which commands did you use to find and install the web browser? apt search web browser sudo apt install alice

3.1 What is the name of the package? dustracing2d

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) focal 2.0.5-1 amd64

3.3 How much disk space will the package utilize after installation? 7,665 kb

Question 2

Question 3

```
arlind@linux:~$ pwd
/home/arlind
arlind@linux:~$ ls Downloads/
'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable'        truck1.jpeg
'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable.7z'     truck2.jpeg
 devcpp.exe                                      truck3.jpg
 google-chrome-stable_current_amd64.deb          ubuntu-20.04.3-desktop-amd64.iso
 TLCL-19.01.pdf
arlind@linux:~$ ls -a Downloads/
 .                                               TLCL-19.01.pdf
 ..                                              truck1.jpeg
'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable'        truck2.jpeg
'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable.7z'     truck3.jpg
 devcpp.exe                                      ubuntu-20.04.3-desktop-amd64.iso
 google-chrome-stable_current_amd64.deb
arlind@linux:~$ ls -al Downloads/
total 3133772
drwxr-xr-x  3 arlind arlind       4096 Oct 13 20:22  .
drwxr-xr-x 30 arlind arlind       4096 Oct 13 19:39  ..
drwxrwxr-x  3 arlind arlind       4096 Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable'
-rw-rw-r--  1 arlind arlind   41726915 Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable.7z'
-rw-rw-rw-  1 arlind arlind    2795008 Apr 27  2015  devcpp.exe
-rw-rw-r--  1 arlind arlind   90229076 Oct 13 18:06  google-chrome-stable_current_amd64.deb
-rw-rw-r--  1 arlind arlind    2120211 Sep 13 00:10  TLCL-19.01.pdf
-rw-rw-r--  1 arlind arlind       9140 Oct 13 20:20  truck1.jpeg
-rw-rw-r--  1 arlind arlind      10754 Oct 13 20:22  truck2.jpeg
-rw-rw-r--  1 arlind arlind     123720 Oct 13 20:22  truck3.jpg
-rw-rw-r--  1 arlind arlind 3071934464 Sep 15 21:19  ubuntu-20.04.3-desktop-amd64.iso
arlind@linux:~$ ls -ahl Downloads/
total 3.0G
drwxr-xr-x  3 arlind arlind 4.0K Oct 13 20:22  .
drwxr-xr-x 30 arlind arlind 4.0K Oct 13 19:39  ..
drwxrwxr-x  3 arlind arlind 4.0K Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable'
-rw-rw-r--  1 arlind arlind  40M Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable.7z'
-rw-rw-rw-  1 arlind arlind 2.7M Apr 27  2015  devcpp.exe
-rw-rw-r--  1 arlind arlind  87M Oct 13 18:06  google-chrome-stable_current_amd64.deb
-rw-rw-r--  1 arlind arlind 2.1M Sep 13 00:10  TLCL-19.01.pdf
-rw-rw-r--  1 arlind arlind 9.0K Oct 13 20:20  truck1.jpeg
-rw-rw-r--  1 arlind arlind  11K Oct 13 20:22  truck2.jpeg
-rw-rw-r--  1 arlind arlind 121K Oct 13 20:22  truck3.jpg
-rw-rw-r--  1 arlind arlind 2.9G Sep 15 21:19  ubuntu-20.04.3-desktop-amd64.iso
arlind@linux:~$ ls -hl Downloads/
total 3.0G
drwxrwxr-x 3 arlind arlind 4.0K Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable'
-rw-rw-r-- 1 arlind arlind  40M Sep 23 11:35 'Dev-Cpp 5.11 TDM-GCC x64 4.9.2 Portable.7z'
-rw-rw-rw- 1 arlind arlind 2.7M Apr 27  2015  devcpp.exe
-rw-rw-r-- 1 arlind arlind  87M Oct 13 18:06  google-chrome-stable_current_amd64.deb
-rw-rw-r-- 1 arlind arlind 2.1M Sep 13 00:10  TLCL-19.01.pdf
-rw-rw-r-- 1 arlind arlind 9.0K Oct 13 20:20  truck1.jpeg
-rw-rw-r-- 1 arlind arlind  11K Oct 13 20:22  truck2.jpeg
-rw-rw-r-- 1 arlind arlind 121K Oct 13 20:22  truck3.jpg
-rw-rw-r-- 1 arlind arlind 2.9G Sep 15 21:19  ubuntu-20.04.3-desktop-amd64.iso
arlind@linux:~$
```

Question 4

```
arlind@linux:~$ tree ~/Downloads/
/home/arlind/Downloads/
├── truck1.jpeg
├── truck2.jpeg
└── truck3.jpg

0 directories, 3 files
arlind@linux:~$ tree -pugh ~/Downloads/
/home/arlind/Downloads/
├── [-rw-rw-r-- arlind    arlind    8.9K]  truck1.jpeg
├── [-rw-rw-r-- arlind    arlind     11K]  truck2.jpeg
└── [-rw-rw-r-- arlind    arlind    121K]  truck3.jpg

0 directories, 3 files
arlind@linux:~$ tree -ct ~/Downloads/
/home/arlind/Downloads/
├── truck1.jpeg
├── truck2.jpeg
└── truck3.jpg

0 directories, 3 files
arlind@linux:~$ 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 -
, Francesc Rocher, Florian Sesser, Kyosuke Tokoro $">
 <title>Directory Tree</title>
 <style type="text/css">
  <!--
</html>
arlind@linux:~$ tree -Ho ~/Downloads/ website.html
arlind@linux:~$ ls
 Desktop      drinks    Pictures                    snap        Videos
 Documents    food      'Pictures from Albania'     Steam       'VirtualBox VMs'
 Downloads    Music     Public                      Templates    website.html
```

Question 5

```
arlind@linux:~$ exa -l ~/Downloads/
.rw-rw-r-- 9.1k arlind 13 Oct 20:20 truck1.jpeg
.rw-rw-r-- 10k arlind 13 Oct 20:22 truck2.jpeg
.rw-rw-r-- 123k arlind 13 Oct 20:22 truck3.jpg
arlind@linux:~$ exa -lhm ~/Downloads/
Permissions Size User   Date Modified Name
.rw-rw-r-- 9.1k arlind 13 Oct 20:20  truck1.jpeg
.rw-rw-r-- 10k arlind 13 Oct 20:22  truck2.jpeg
.rw-rw-r-- 123k arlind 13 Oct 20:22  truck3.jpg
arlind@linux:~$
```

```
arlind@linux:~$ tree --help
usage: tree [-acdfghilnpqrstuvxACDFJQNSUX] [-H baseHREF] [-T title ]
        [-L level [-R]] [-P pattern] [-I pattern] [-o filename] [--version]
        [--help] [--inodes] [--device] [--noreport] [--nolinks] [--dirsfirst]
        [--charset charset] [--filelimit[=]#] [--si] [--timefmt[=]<f>]
        [--sort[=]<name>] [--matchdirs] [--ignore-case] [--fromfile] [--]
        [<directory list>]
  ------- Listing options -------
  -a            All files are listed.
  -d            List directories only.
  -l            Follow symbolic links like directories.
  -f            Print the full path prefix for each file.
  -x            Stay on current filesystem only.
  -L level      Descend only level directories deep.
  -R            Rerun tree when max dir level reached.
  -P pattern    List only those files that match the pattern given.
  -I pattern    Do not list files that match the given pattern.
  --ignore-case Ignore case when pattern matching.
  --matchdirs   Include directory names in -P pattern matching.
  --noreport    Turn off file/directory count at end of tree listing.
  --charset X   Use charset X for terminal/HTML and indentation line output.
  --filelimit # Do not descend dirs with more than # files in them.
  --timefmt <f> Print and format time according to the format <f>.
  -o filename   Output to file instead of stdout.
  ------- File options -------
  -q            Print non-printable characters as '?'.
  -N            Print non-printable characters as is.
  -Q            Quote filenames with double quotes.
  -p            Print the protections for each file.
  -u            Displays file owner or UID number.
  -g            Displays file group owner or GID number.
  -s            Print the size in bytes of each file.
  -h            Print the size in a more human readable way.
  --si          Like -h, but use in SI units (powers of 1000).
  -D            Print the date of last modification or (-c) status change.
  -F            Appends '/', '=', '*', '@', '|' or '>' as per ls -F.
  --inodes      Print inode number of each file.
  --device      Print device ID number to which each file belongs.
  ------- Sorting options -------
  -v            Sort files alphanumerically by version.
  -t            Sort files by last modification time.
  -c            Sort files by last status change time.
  -U            Leave files unsorted.
  -r            Reverse the order of the sort.
  --dirsfirst   List directories before files (-U disables).
  --sort X      Select sort: name,version,size,mtime,ctime.
  ------- Graphics options -------
  -i            Don't print indentation lines.
  -A            Print ANSI lines graphic indentation lines.
  -S            Print with CP437 (console) graphics indentation lines.
  -n            Turn colorization off always (-C overrides).
```

```
-C              Turn colorization on always.
------- XML/HTML/JSON options -------
-X              Prints out an XML representation of the tree.
```

```
arlind@linux:~$ tree -ug
.
├── [arlind   arlind  ] Desktop
│   ├── [arlind   arlind  ] C++
│   │   ├── [arlind   arlind  ] hw1
│   │   └── [arlind   arlind  ] hw1.pdf
│   ├── [arlind   arlind  ] CIS106
│   │   ├── [arlind   arlind  ] Final Project
│   │   │   └── [arlind   arlind  ] Deliverable1.md
│   │   ├── [arlind   arlind  ] imgs
│   │   │   ├── [arlind   arlind  ] Question2.png
│   │   │   ├── [arlind   arlind  ] Question3.png
│   │   │   ├── [arlind   arlind  ] Question4.png
│   │   │   └── [arlind   arlind  ] Question5.png
│   │   ├── [arlind   arlind  ] Lab1.md
│   │   ├── [arlind   arlind  ] Labs
│   │   │   ├── [arlind   arlind  ] Lab2.md
│   │   │   └── [arlind   arlind  ] Lab3
│   │   │       ├── [arlind   arlind  ] Lab3.md
│   │   │       ├── [arlind   arlind  ] Q2.1.png
│   │   │       ├── [arlind   arlind  ] Q2.png
│   │   │       ├── [arlind   arlind  ] Q3.png
│   │   │       ├── [arlind   arlind  ] Q4.1.png
│   │   │       ├── [arlind   arlind  ] Q4.png
│   │   │       ├── [arlind   arlind  ] Q5.1.png
│   │   │       └── [arlind   arlind  ] Q5.png
│   │   ├── [arlind   arlind  ] Notes
│   │   │   ├── [arlind   arlind  ] Notes 1
│   │   │   │   ├── [arlind   arlind  ] Image1.png
│   │   │   │   ├── [arlind   arlind  ] Image2.png
│   │   │   │   ├── [arlind   arlind  ] Kubuntu.png
│   │   │   │   ├── [arlind   arlind  ] Notes-0.md
│   │   │   │   └── [arlind   arlind  ] Notes-0.pdf
│   │   │   └── [arlind   arlind  ] Notes 2
│   │   ├── [arlind   arlind  ] Pic1.png
│   │   ├── [arlind   arlind  ] Pic2.png
│   │   └── [arlind   arlind  ] Pic3.png
│   ├── [arlind   arlind  ] Current Semester CIS 106
│   │   ├── [arlind   arlind  ] ctrlv
│   │   ├── [arlind   arlind  ] Homework
│   │   │   ├── [arlind   arlind  ] Homework2.md
│   │   │   └── [arlind   arlind  ] Homework2.pdf
│   │   ├── [arlind   arlind  ] Labs
│   │   │   ├── [arlind   arlind  ] Lab0
│   │   │   │   ├── [arlind   arlind  ] Image1.png
│   │   │   │   ├── [arlind   arlind  ] Image2.png
│   │   │   │   ├── [arlind   arlind  ] Kubuntu.png
│   │   │   │   ├── [arlind   arlind  ] Notes-0.md
│   │   │   │   └── [arlind   arlind  ] Notes-0.pdf
│   │   │   ├── [arlind   arlind  ] Lab1
│   │   │   │   ├── [arlind   arlind  ] Lab1.md
│   │   │   │   ├── [arlind   arlind  ] Lab1.pdf
│   │   │   │   ├── [arlind   arlind  ] Pic1.png
│   │   │   │   ├── [arlind   arlind  ] Pic2.png
```

```
arlind@linux:~$ tree -sh
.
├── [4.0K]  Desktop
│   ├── [4.0K]  C++
│   │   ├── [ 677]  hw1
│   │   └── [ 15K]  hw1.pdf
│   ├── [4.0K]  CIS106
│   │   ├── [4.0K]  Final Project
│   │   │   └── [ 153]  Deliverable1.md
│   │   ├── [4.0K]  imgs
│   │   │   ├── [ 99K]  Question2.png
│   │   │   ├── [384K]  Question3.png
│   │   │   ├── [509K]  Question4.png
│   │   │   └── [117K]  Question5.png
│   │   ├── [4.5K]  Lab1.md
│   │   ├── [4.0K]  Labs
│   │   │   ├── [ 375]  Lab2.md
│   │   │   └── [4.0K]  Lab3
│   │   │       ├── [ 855]  Lab3.md
│   │   │       ├── [ 13K]  Q2.1.png
│   │   │       ├── [ 18K]  Q2.png
│   │   │       ├── [240K]  Q3.png
│   │   │       ├── [ 20K]  Q4.1.png
│   │   │       ├── [ 75K]  Q4.png
│   │   │       ├── [167K]  Q5.1.png
│   │   │       ├── [119K]  Q5.2.png
│   │   │       └── [ 25K]  Q5.png
│   │   ├── [4.0K]  Notes
│   │   │   ├── [4.0K]  Notes 1
│   │   │   │   ├── [ 24K]  Image1.png
│   │   │   │   ├── [ 61K]  Image2.png
│   │   │   │   ├── [126K]  Kubuntu.png
│   │   │   │   ├── [3.5K]  Notes-0.md
│   │   │   │   └── [272K]  Notes-0.pdf
│   │   │   └── [4.0K]  Notes 2
│   │   ├── [207K]  Pic1.png
│   │   ├── [244K]  Pic2.png
│   │   └── [ 38K]  Pic3.png
│   ├── [4.0K]  Current Semester CIS 106
│   │   ├── [  40]  ctrlv
│   │   ├── [4.0K]  Homework
│   │   │   ├── [1.5K]  Homework2.md
│   │   │   └── [ 38K]  Homework2.pdf
│   │   ├── [4.0K]  Labs
│   │   │   ├── [4.0K]  Lab0
│   │   │   │   ├── [ 24K]  Image1.png
│   │   │   │   ├── [ 61K]  Image2.png
│   │   │   │   ├── [126K]  Kubuntu.png
│   │   │   │   ├── [3.5K]  Notes-0.md
│   │   │   │   └── [272K]  Notes-0.pdf
│   │   │   ├── [4.0K]  Lab1
│   │   │   │   ├── [4.5K]  Lab1.md
│   │   │   │   ├── [503K]  Lab1.pdf
│   │   │   │   └── [207K]  Pic1.png
```