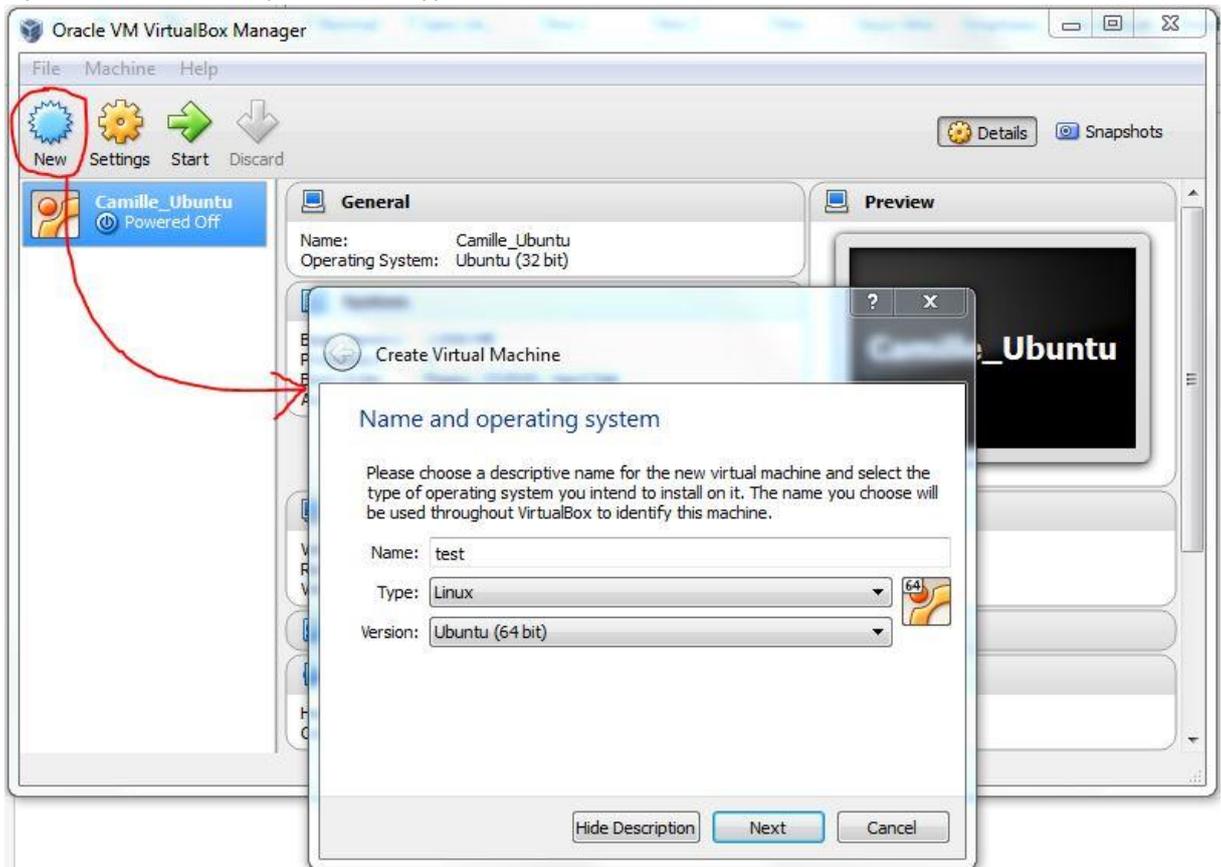
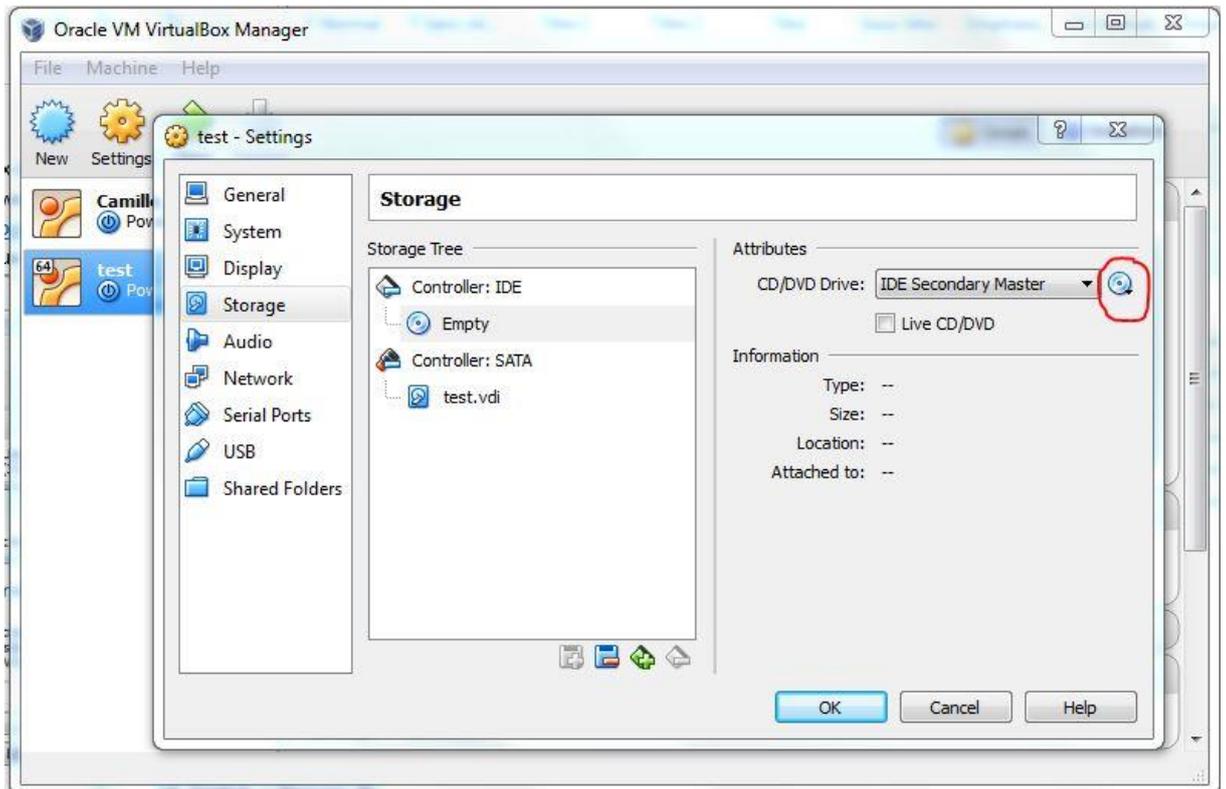


1) For Windows users – Ubuntu installation:

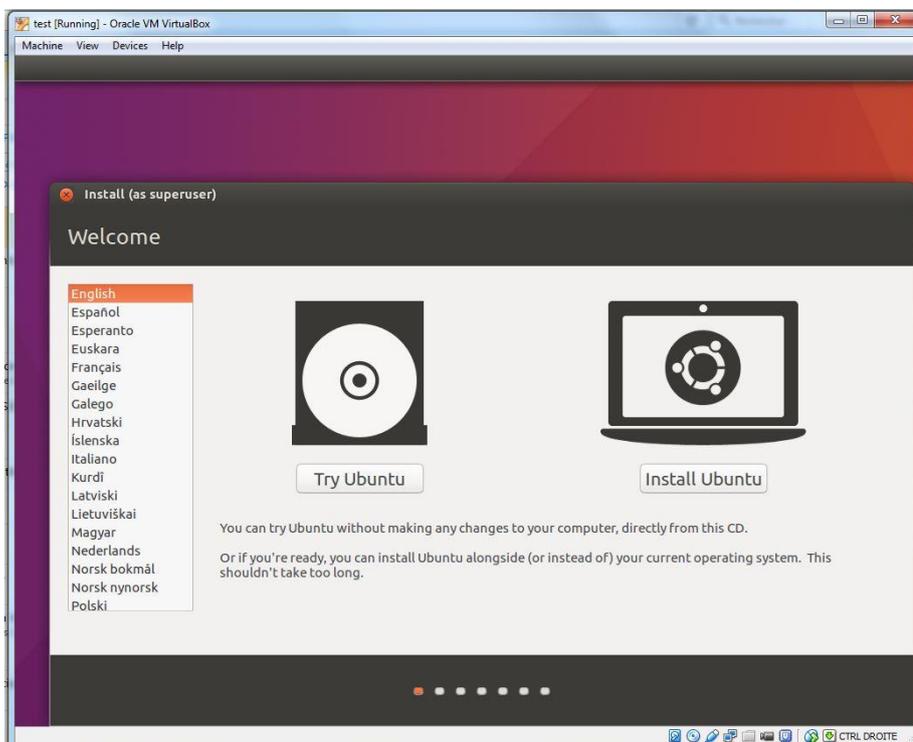
- 1) Download and install Oracle VM Virtual Box (<https://www.virtualbox.org/wiki/Downloads>).
- 2) Download Ubuntu 16.04 (64 or 32 bit following your version of Windows, <http://www.ubuntu.com/download/desktop>)
- 3) Open Virtual Box and press New. Type: Linux. Version: Ubuntu 64 or 32 bit.



- 4) Set memory size: as much as possible in the green part of the rule.
- 5) Hard drive: Create a virtual hard drive.
- 6) Hard drive type: VDI.
- 7) Storage: dynamically allocated.
- 8) Set location and size (100 or 200 GB should be OK).
- 9) Go to Settings > Storage > Click on Empty > Click on the right (red circle): Choose a virtual CD/DVD disk file.



- 10) Select the ".iso" file you previously downloaded in step 2 and containing Ubuntu, then OK.
- 11) Click on Start in the main menu to launch the Virtual Machine.
- 12) Click on Install Ubuntu.

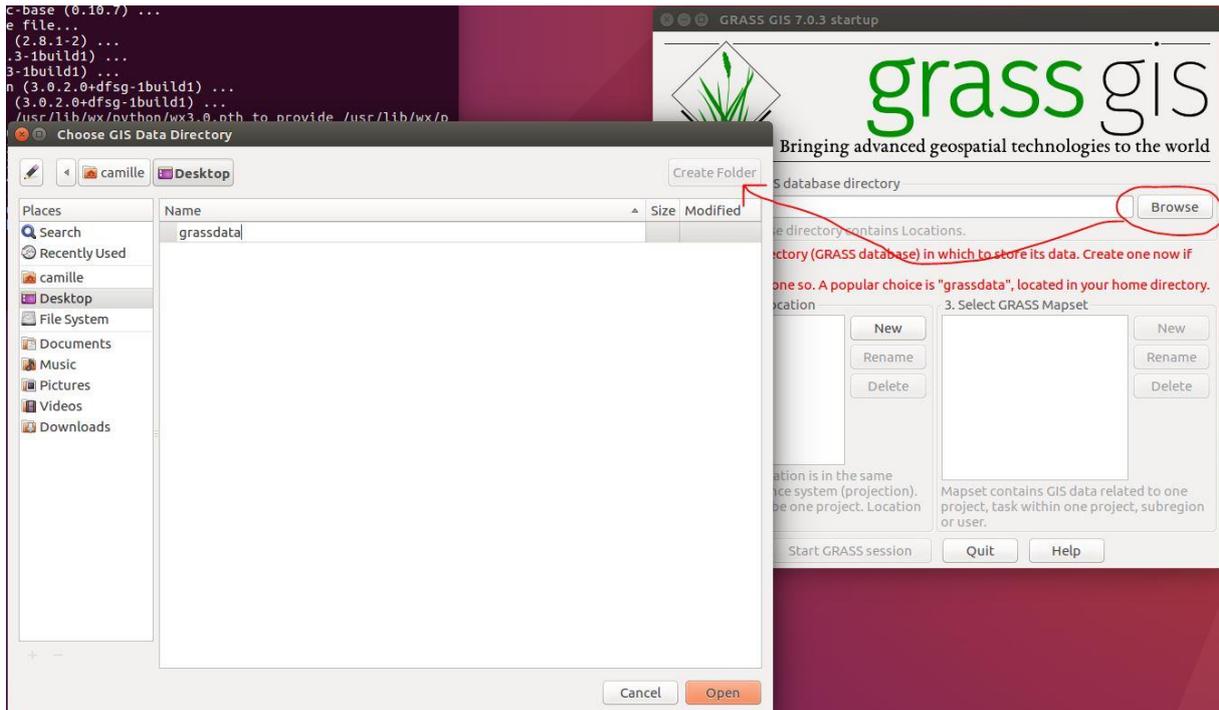


- 13) Preparing to install Ubuntu: click on Continue (no need to install third-party software).
- 14) Installation type: Select "Erase disk and Install Ubuntu" and continue the process until the beginning of Ubuntu installation.
- 15) When installation is finished, restart.
- 16) Press Enter.

17) Write down your password and enter Ubuntu.

2) Downloading GRASS GIS:

- 1) Type Ctrl+Alt+T to open a terminal.
- 2) Write in the terminal: `sudo apt-get install grass`
- 3) Write `grass` in the terminal to open GRASS GIS.
- 4) Go to Desktop, right click and create a new folder called `grassdata`.
- 4) Go back to GRASS, click on Browse, and select `grassdata` folder.



- 5) In section "2. Select GRASS location", click New.
- 6) Don't change the options and click Next.
- 7) In "Choose method for creating a new location", click on "Select EPSG code of spatial reference system" and click Next.
- 8) Select any code option and click Next.
- 9) Click Finish.
- 10) A window asking if you want to set resolution and extent, click No.
- 11) Do you want to create new mapset? Click Cancel.
- 12) Click "Start GRASS session".
- 13) Several GRASS windows should open.

3) Install R software:

1) Type Ctrl+Alt+T to open a terminal and write: `sudo apt-get install r-base`

4) Install RStudio:

1) Go to <https://www.rstudio.com/products/rstudio/download3/>

2) Click on your version of Ubuntu (32 or 64 bit)

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 0.99.903 - Windows Vista/7/8/10	77.1 MB	2016-07-18	716f28f2143c5e21f4acea5752e284f8
RStudio 0.99.903 - Mac OS X 10.6+ (64-bit)	60 MB	2016-07-18	d14a1585b5a5ac0839507b9c04d460d6
RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (32-bit)	81.6 MB	2016-07-18	761eae80b0ba4d4cd9051a802a2c44e2
RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (64-bit)	88.3 MB	2016-07-18	98ea59d3db00e0083d3e4053514f764d
RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	81 MB	2016-07-18	ce2ea1023d99175cb909def0fe66eba7
RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	81.9 MB	2016-07-18	152f247255e86904cf3354afbc7b3b99

Zip/Tarballs

Zip/tar archives	Size	Date	MD5
RStudio 0.99.903 - Windows Vista/7/8/10	110.6 MB	2016-07-18	53817c5703a5fefbba513e6d05133e1d
RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (32-bit)	82.3 MB	2016-07-18	bc2c16be996ed08200f1fde7b9e2b93a
RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (64-bit)	89.2 MB	2016-07-18	44c418d506e395c70416df458b0788b2
RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	81.6 MB	2016-07-18	c85a4e536fb71189744fba7aec9e35b5
RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	82.8 MB	2016-07-18	ad5761417fa07cc4db7dfb91aa535b5a

Source Code

A tarball containing source code for RStudio v0.99.903 can be downloaded from [here](#)

3) Select "Open with Software Install (default), and click OK.

4) Once the file is downloaded the Ubuntu Software Center should open, click on Install.

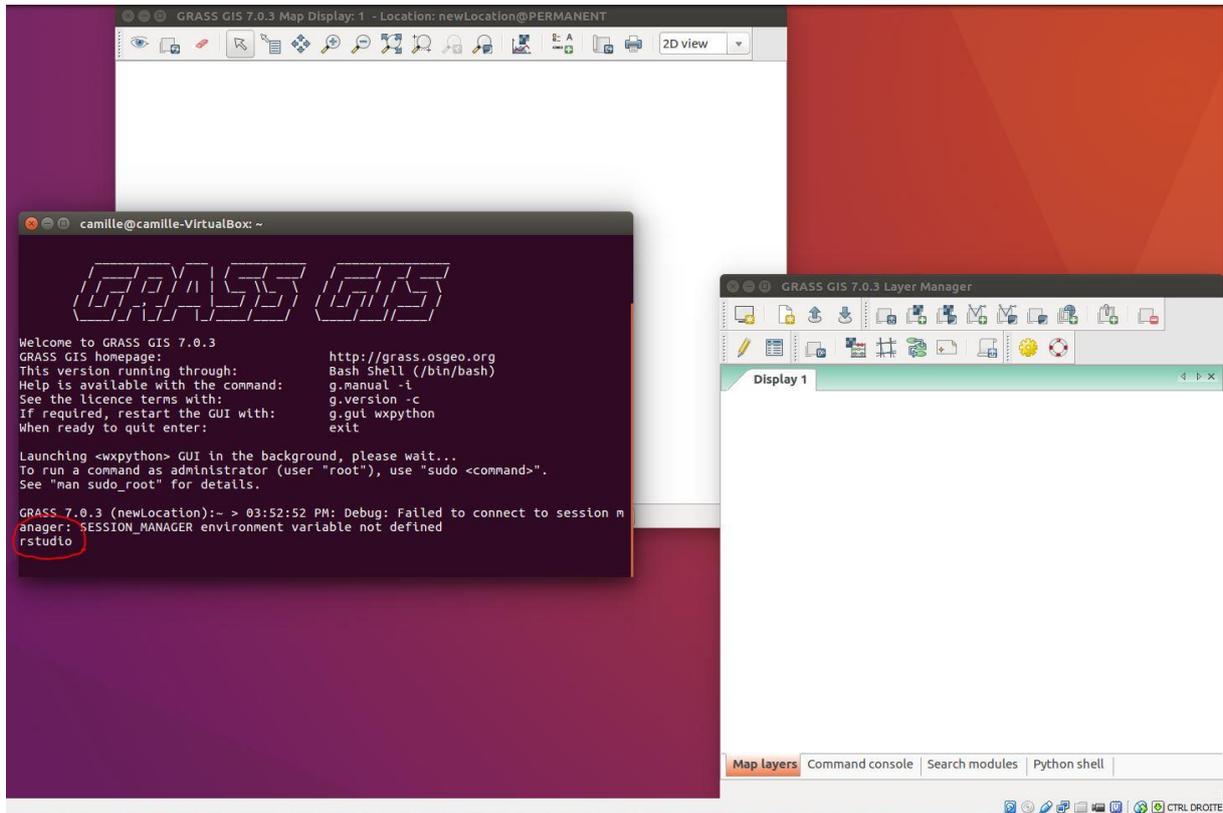
5) Test installation:

1) Type Ctrl+Alt+T to open a terminal.

2) Type *grass* to open GRASS GIS.

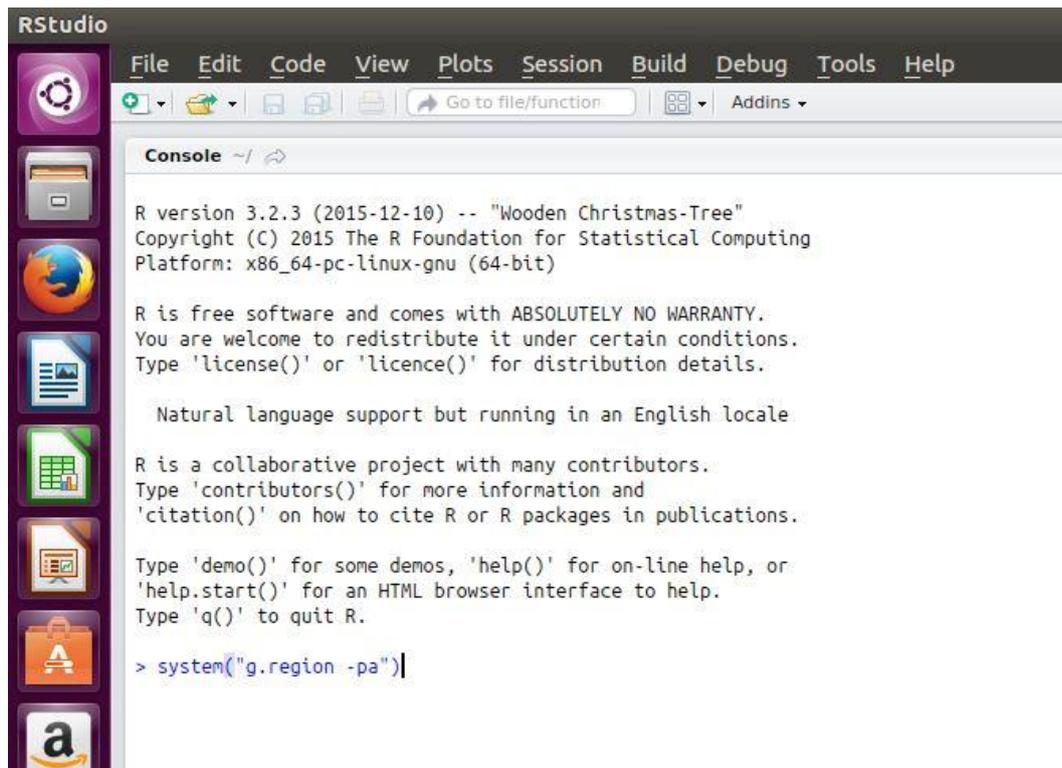
3) Start a GRASS session.

4) Once the two additional GRASS windows are opened, go back to the terminal and write *rstudio*.



5) Rstudio should open.

6) In Rstudio, write down: `system("g.region -pa")`



7) If the message below appears, everything should work and the installation is finished.

```
> system("g.region -pa")
projection: 99 (Transverse Mercator)
zone:      0
datum:     ** unknown (default: WGS84) **
ellipsoid: clark80
north:     1
south:     0
west:      0
east:      1
nsres:     1
ewres:     1
rows:      1
cols:      1
cells:     1
>
```