

Notes

1. The following slides on “Setting up C Programming Environment” is not created by me. The authors reserve the copyright of the slides.
2. The Ubuntu I installed is version 14.04, which is not the latest version. If you want to install this one, you can find it here <https://www.ubuntu.com/download/alternative-downloads>
3. The link to download VirtualBox in the slides (Page 2) is not correct. Please visit <https://www.virtualbox.org/wiki/Downloads> to download VirtualBox.

Setting up C Programming Environment

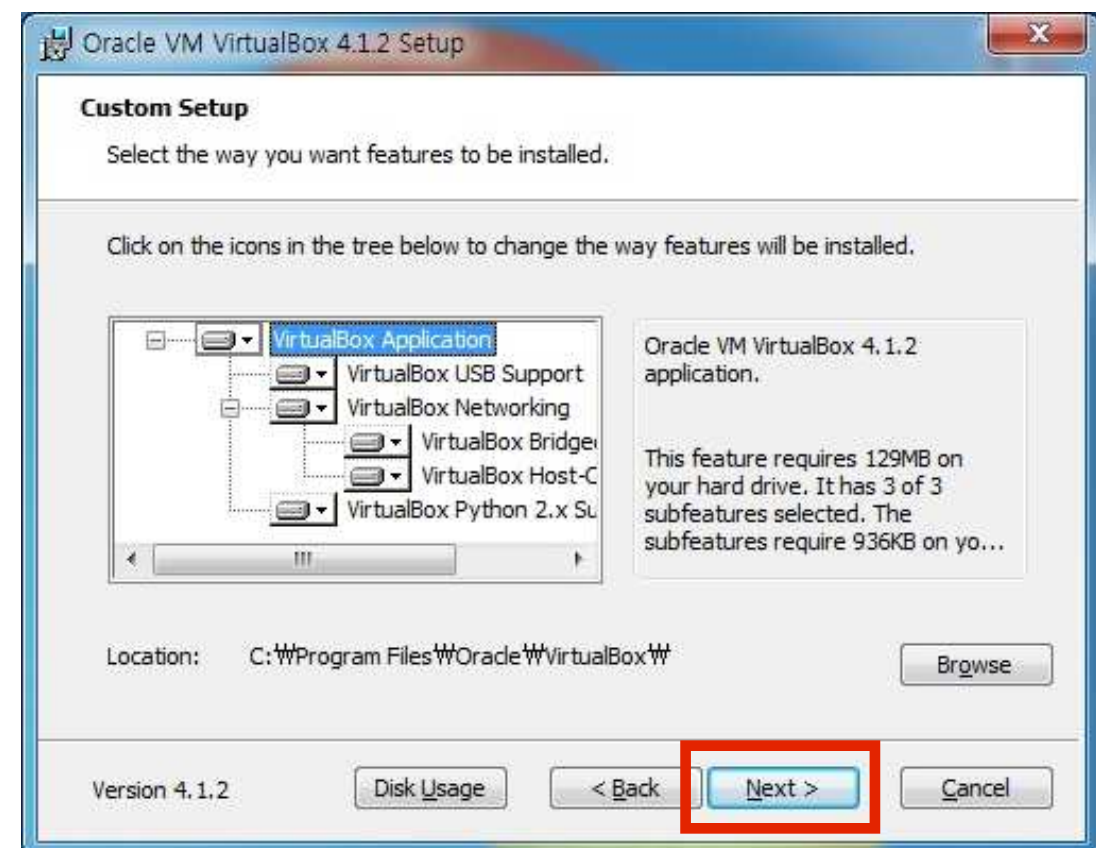
Install VirtualBox

1. Visit <http://www.virtualbox.org/wiki/downloads>
2. Download VirtualBox platform packages for your OS
3. Open the Installation Package by double clicking

MAC



PC



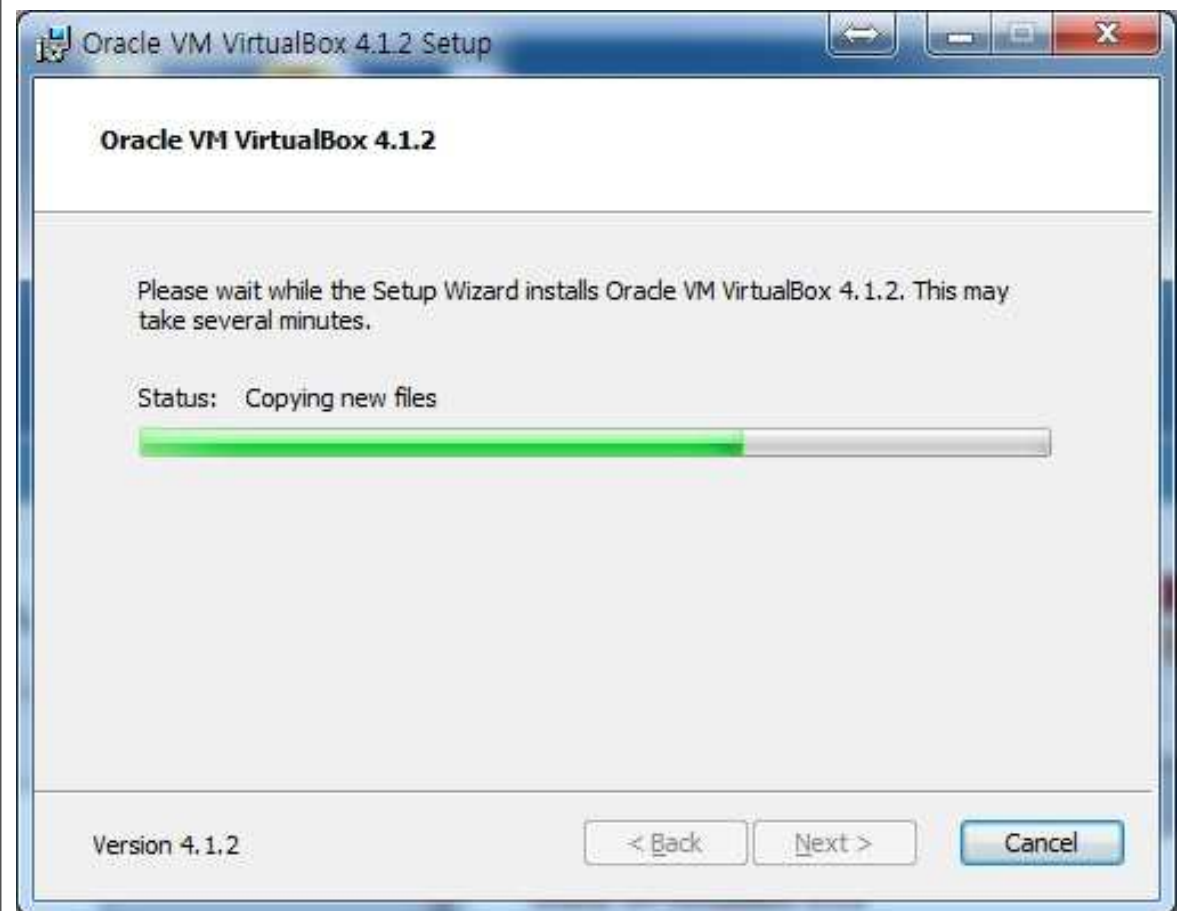
Install VirtualBox

4. Click continue and finish installing VirtualBox

MAC



PC



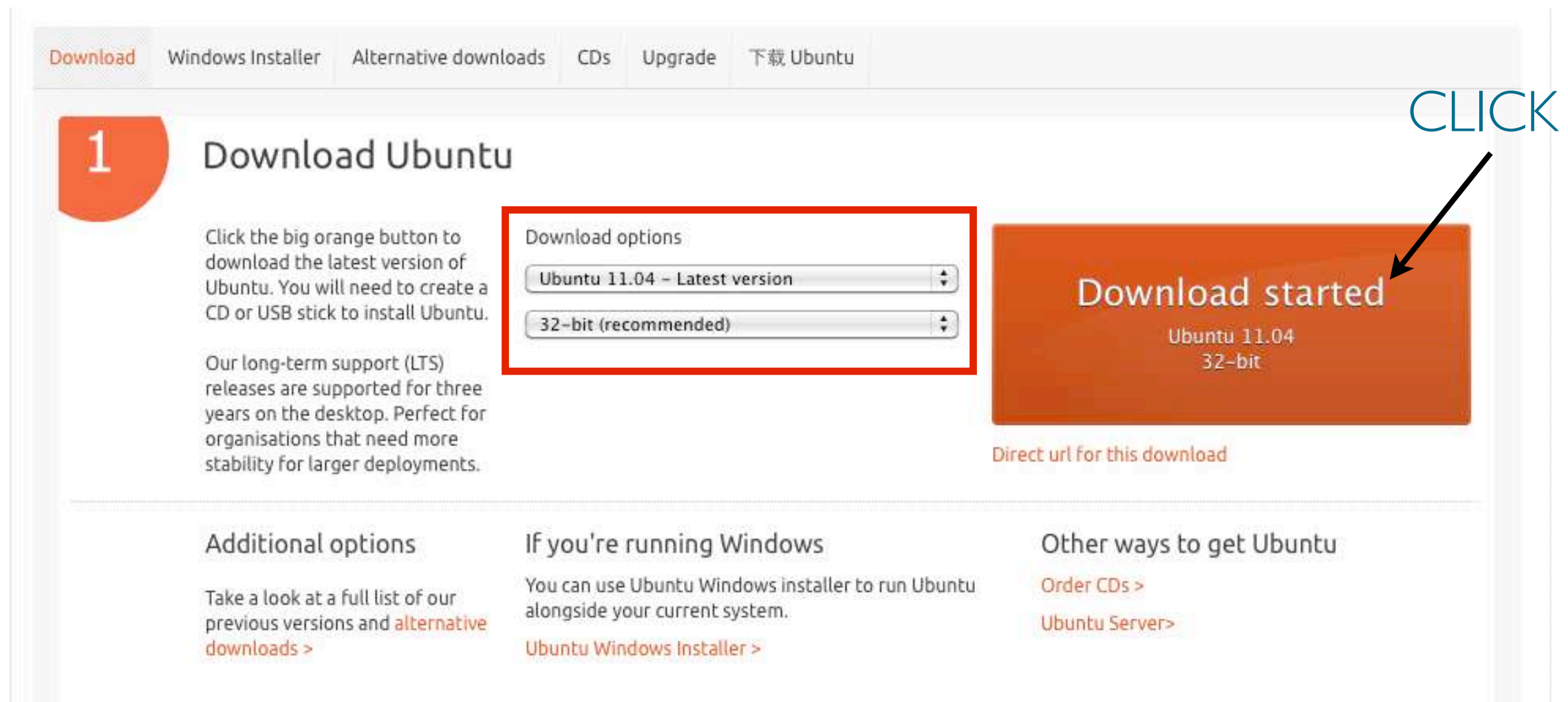
5. When finished installation, close the window.

Download Linux

1. Visit the page

<http://www.ubuntu.com/download/ubuntu/download>

2. Choose the Latest version of Ubuntu and 32-bit and click “Start Download”



The screenshot shows the Ubuntu download page. At the top, there is a navigation bar with links: [Download](#), [Windows Installer](#), [Alternative downloads](#), [CDs](#), [Upgrade](#), and [下载 Ubuntu](#). The main section is titled "1 Download Ubuntu". It contains instructions: "Click the big orange button to download the latest version of Ubuntu. You will need to create a CD or USB stick to install Ubuntu." and "Our long-term support (LTS) releases are supported for three years on the desktop. Perfect for organisations that need more stability for larger deployments." Below this, there is a "Download options" section with two dropdown menus: "Ubuntu 11.04 - Latest version" and "32-bit (recommended)". To the right of these options is a large orange button labeled "Download started" with the text "Ubuntu 11.04 32-bit" below it. An arrow points from the word "CLICK" to this button. Below the button is the text "Direct url for this download". At the bottom, there are three columns of additional information: "Additional options" (link to "alternative downloads >"), "If you're running Windows" (link to "Ubuntu Windows Installer >"), and "Other ways to get Ubuntu" (links to "Order CDs >" and "Ubuntu Server >").

Download options

Ubuntu 11.04 - Latest version

32-bit (recommended)

Download started

Ubuntu 11.04
32-bit

Direct url for this download

Additional options

Take a look at a full list of our previous versions and [alternative downloads >](#)

If you're running Windows

You can use Ubuntu Windows installer to run Ubuntu alongside your current system.

[Ubuntu Windows Installer >](#)

Other ways to get Ubuntu

[Order CDs >](#)

[Ubuntu Server >](#)

Install Linux using Virtual Box

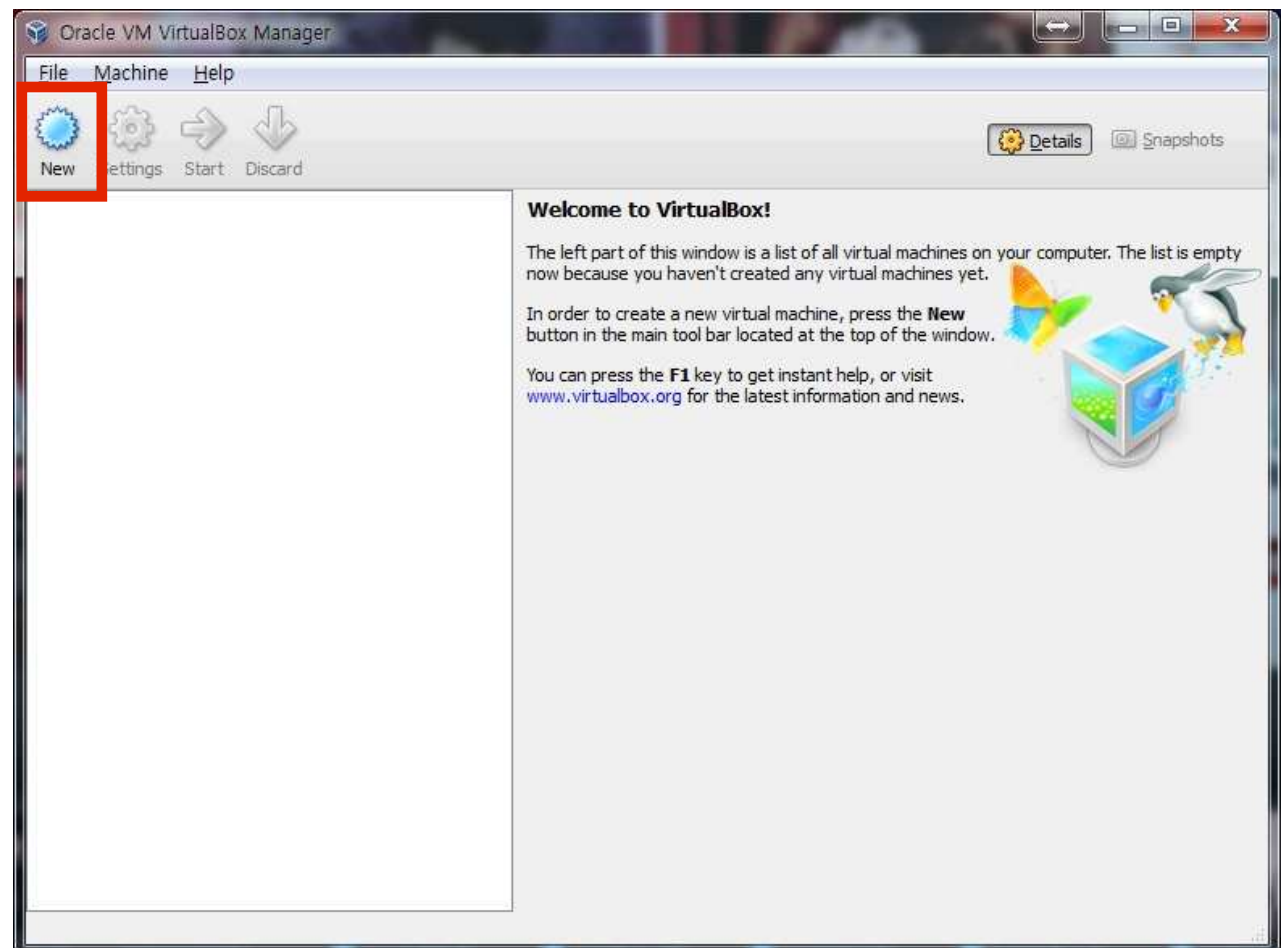
1. Run VirtualBox by double-clicking the icon

2. Click “New” button on the top left corner

MAC



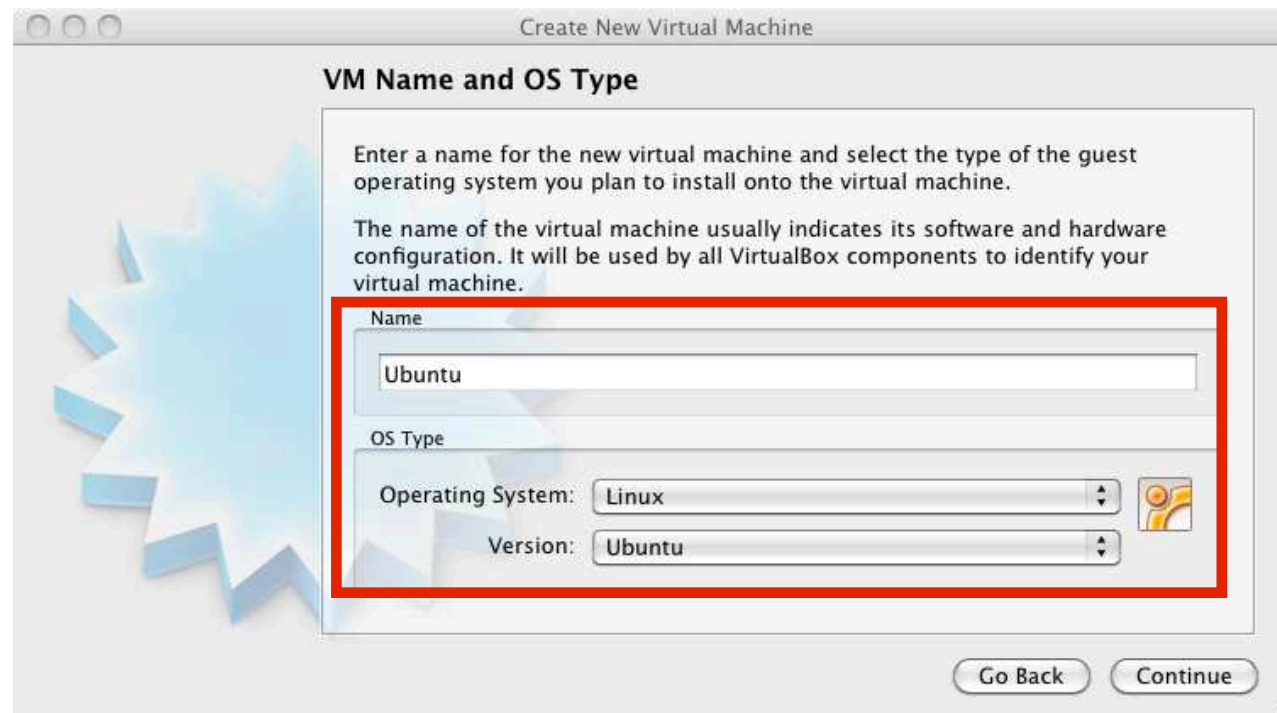
PC



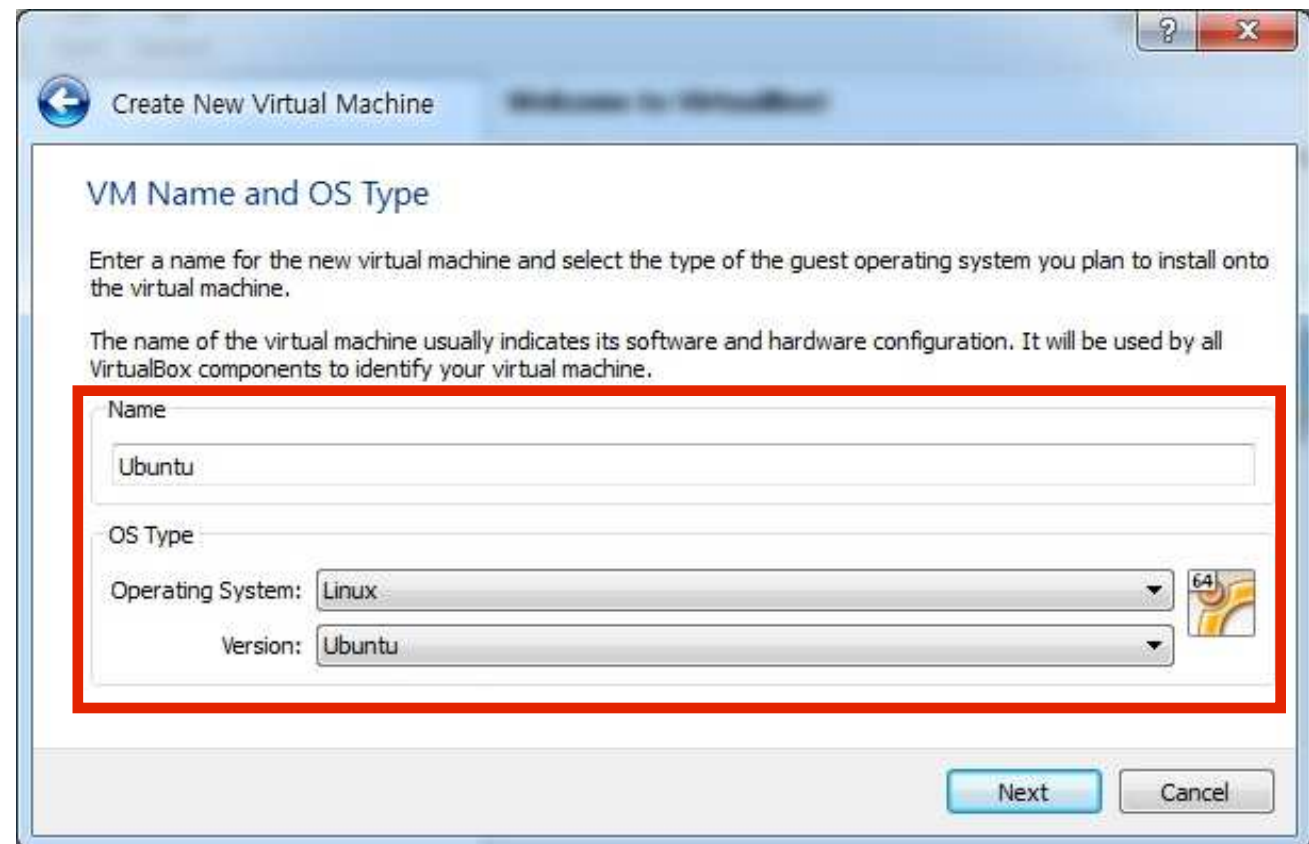
Install Linux using Virtual Box

3. Click “Continue” on the pop-up window
4. Type VM name, select “Linux” for the OS and choose “Ubuntu” for the version.

MAC



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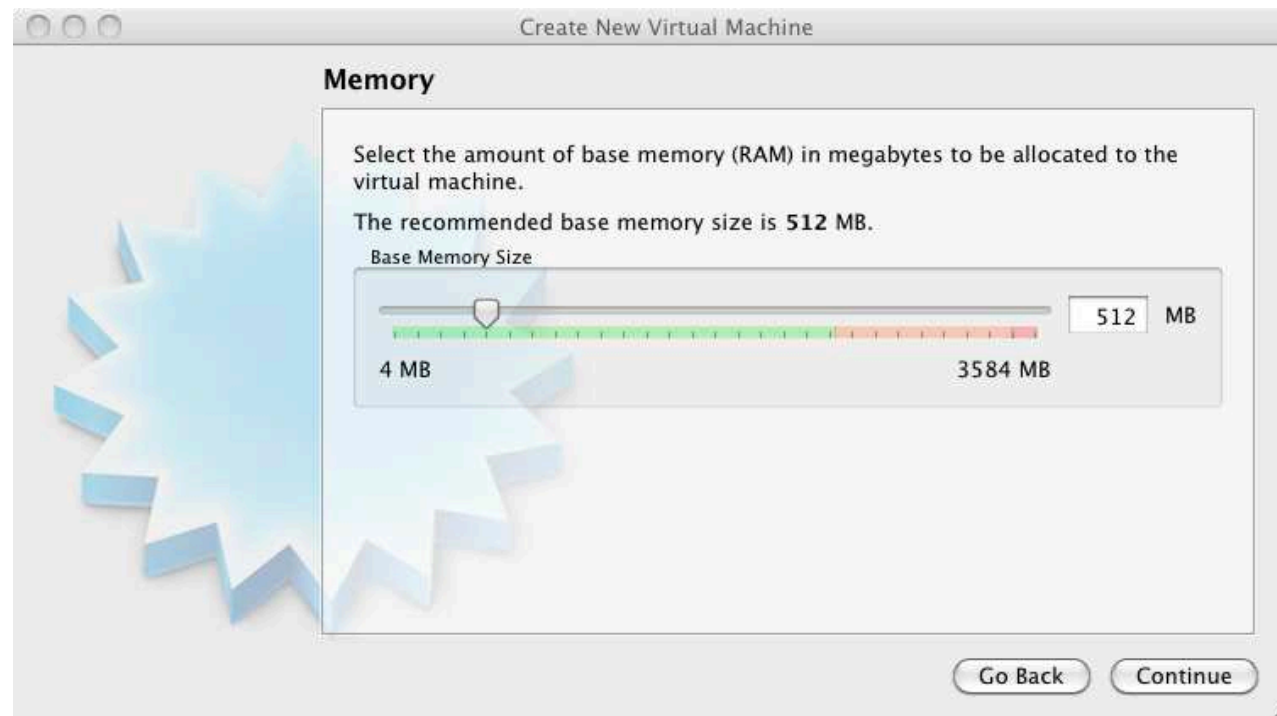


Install Linux using Virtual Box

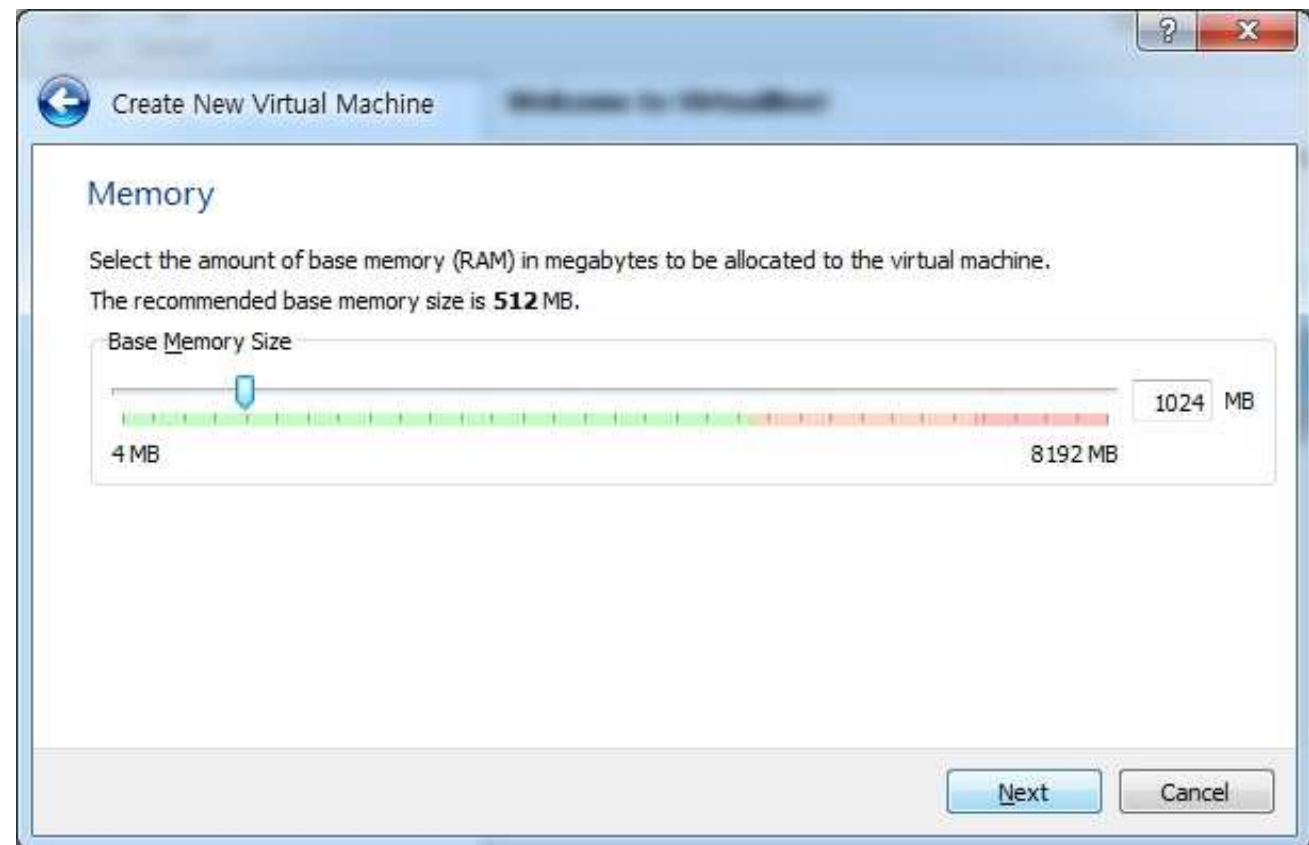
5. Choose the amount of memory to allocate (I suggest choosing between 512 MB to 1024 MB)

6. Click Continue or Next

MAC



PC



Install Linux using Virtual Box

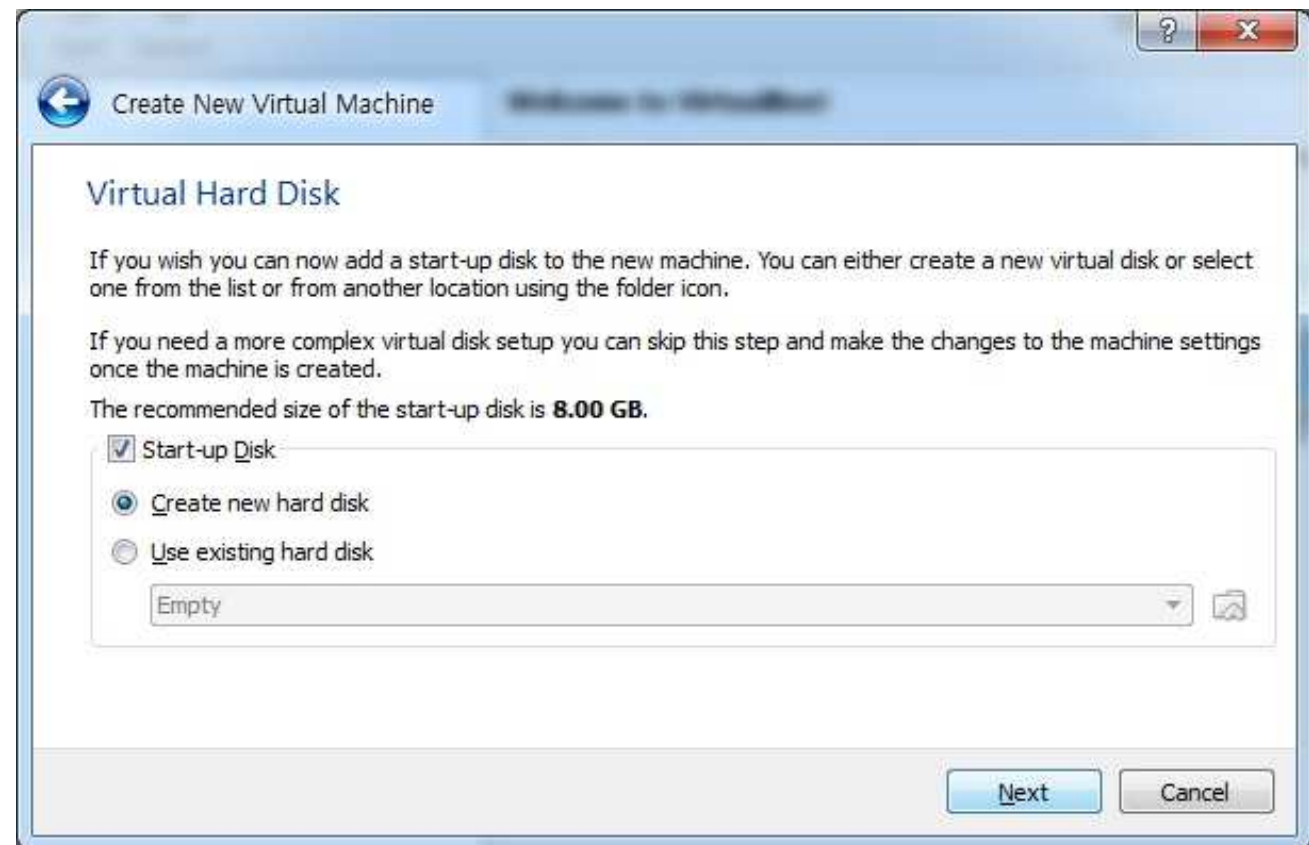
7. Choose create a new virtual hard disk

8. Click Continue or Next

MAC



PC



Install Linux using Virtual Box

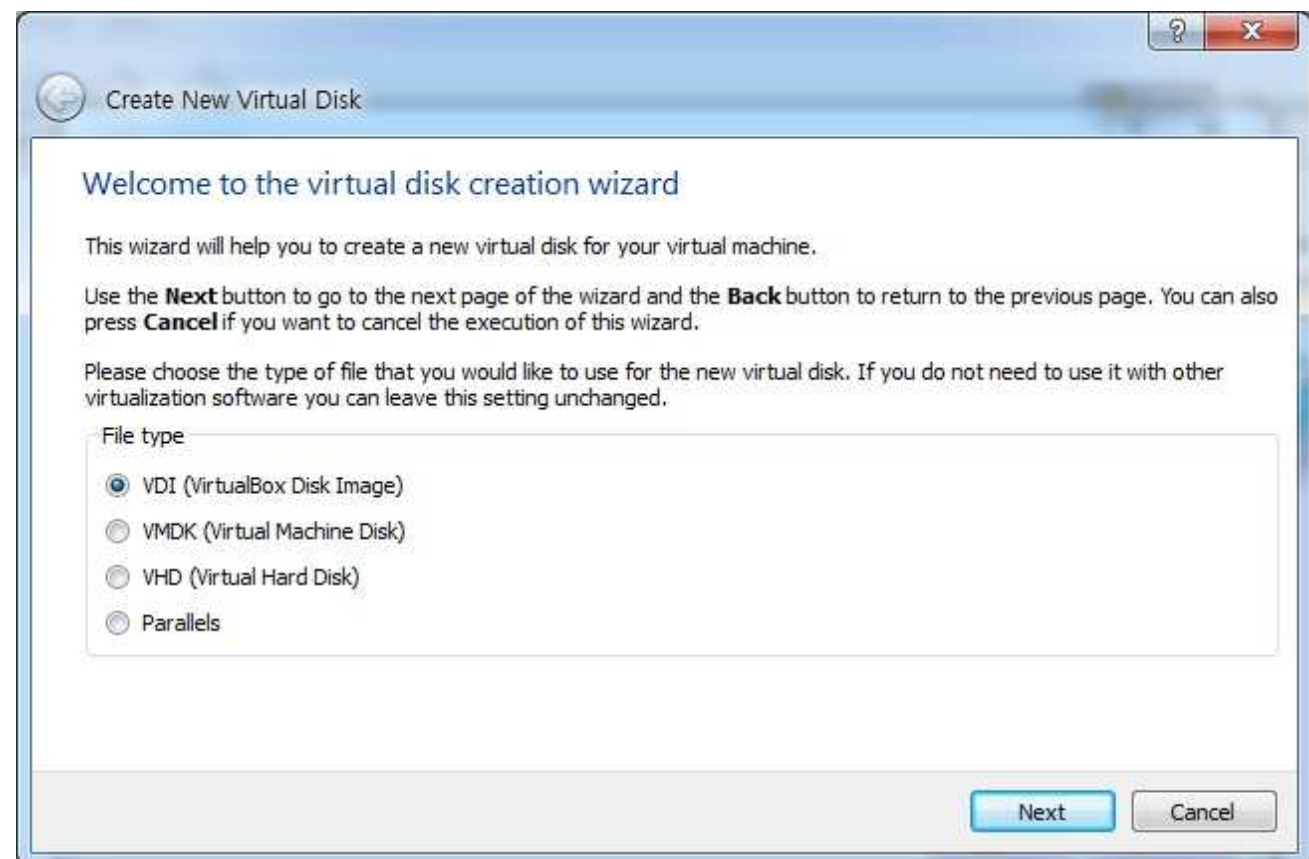
9. Choose VDI (VirtualBox Disk Image)

10. Click Continue or Next

MAC



PC



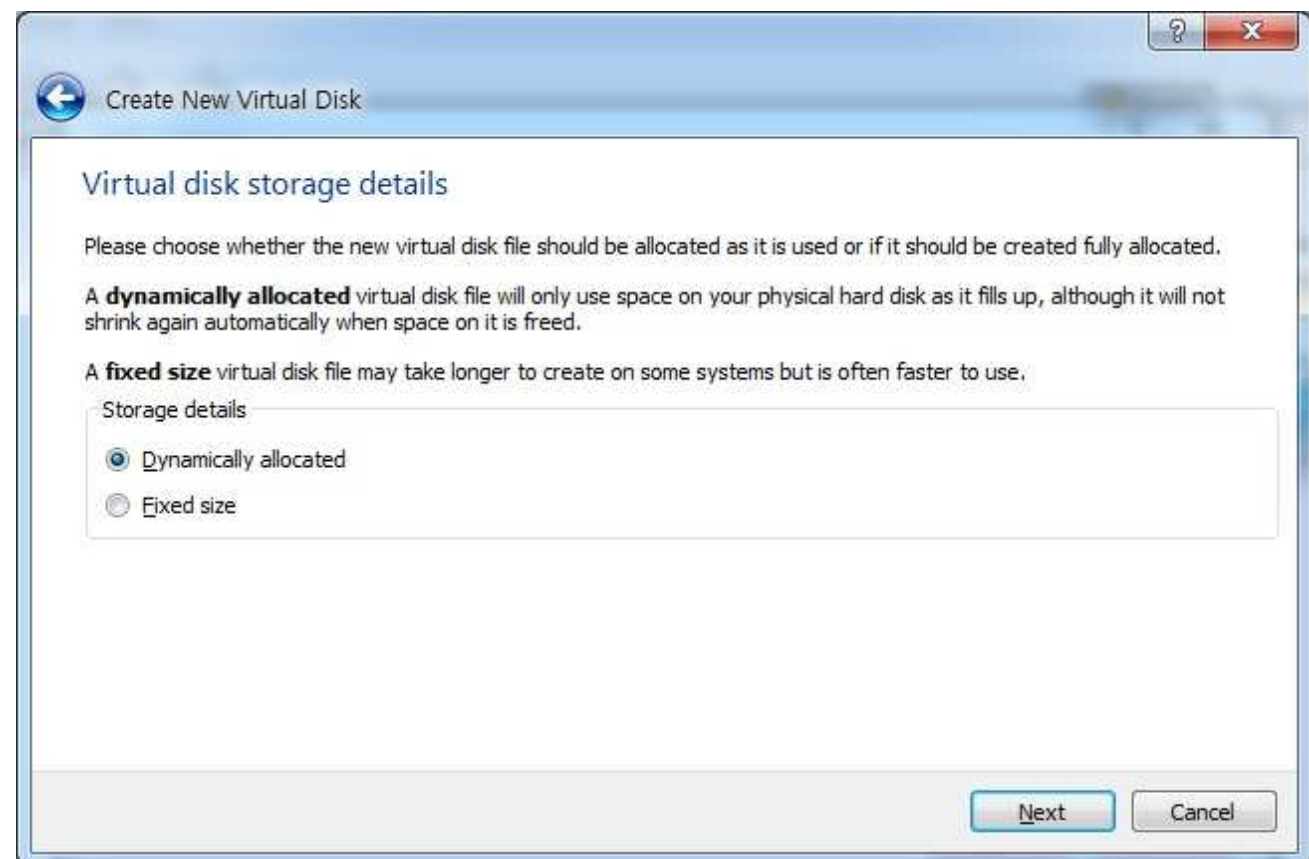
Install Linux using Virtual Box

11. Choose “Dynamically Allocated” click continue.
This way, the size of your Virtual Hard Disk will grow as you use.

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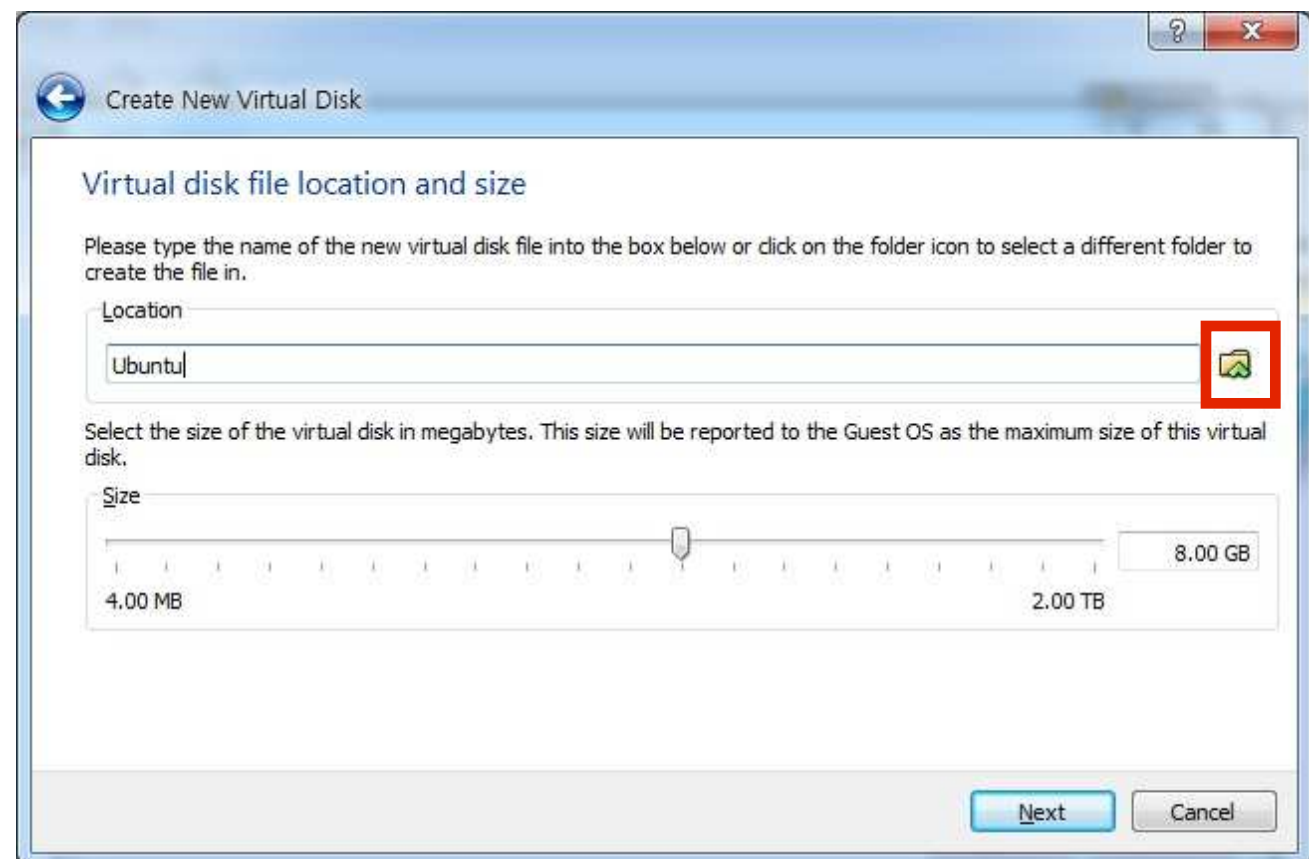
Install Linux using Virtual Box

12. Click the folder icon and choose the ubuntu iso file you downloaded.
13. Select the size of the Virtual Disk (I recommend choosing 8 GB) and click continue

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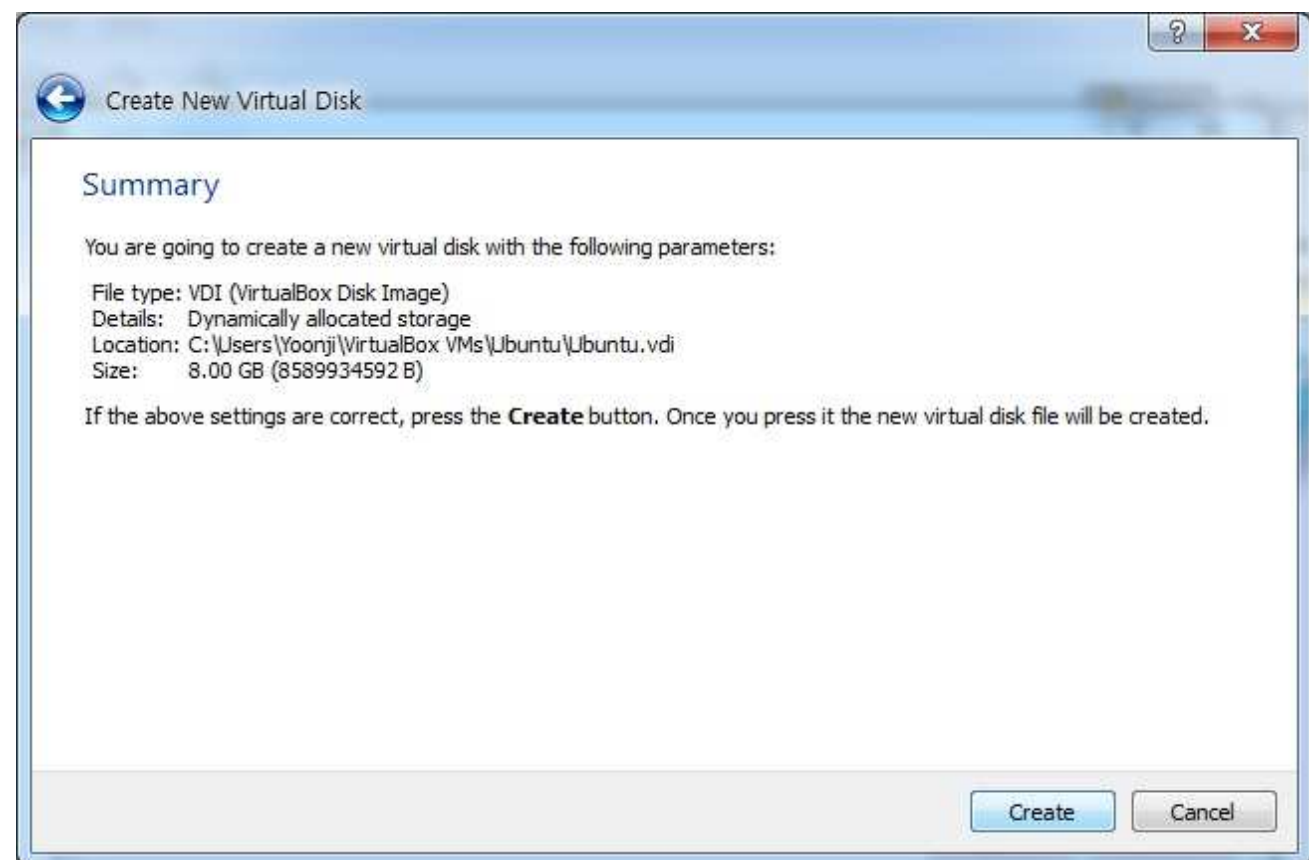
Install Linux using Virtual Box

I 4. Click Create

MAC



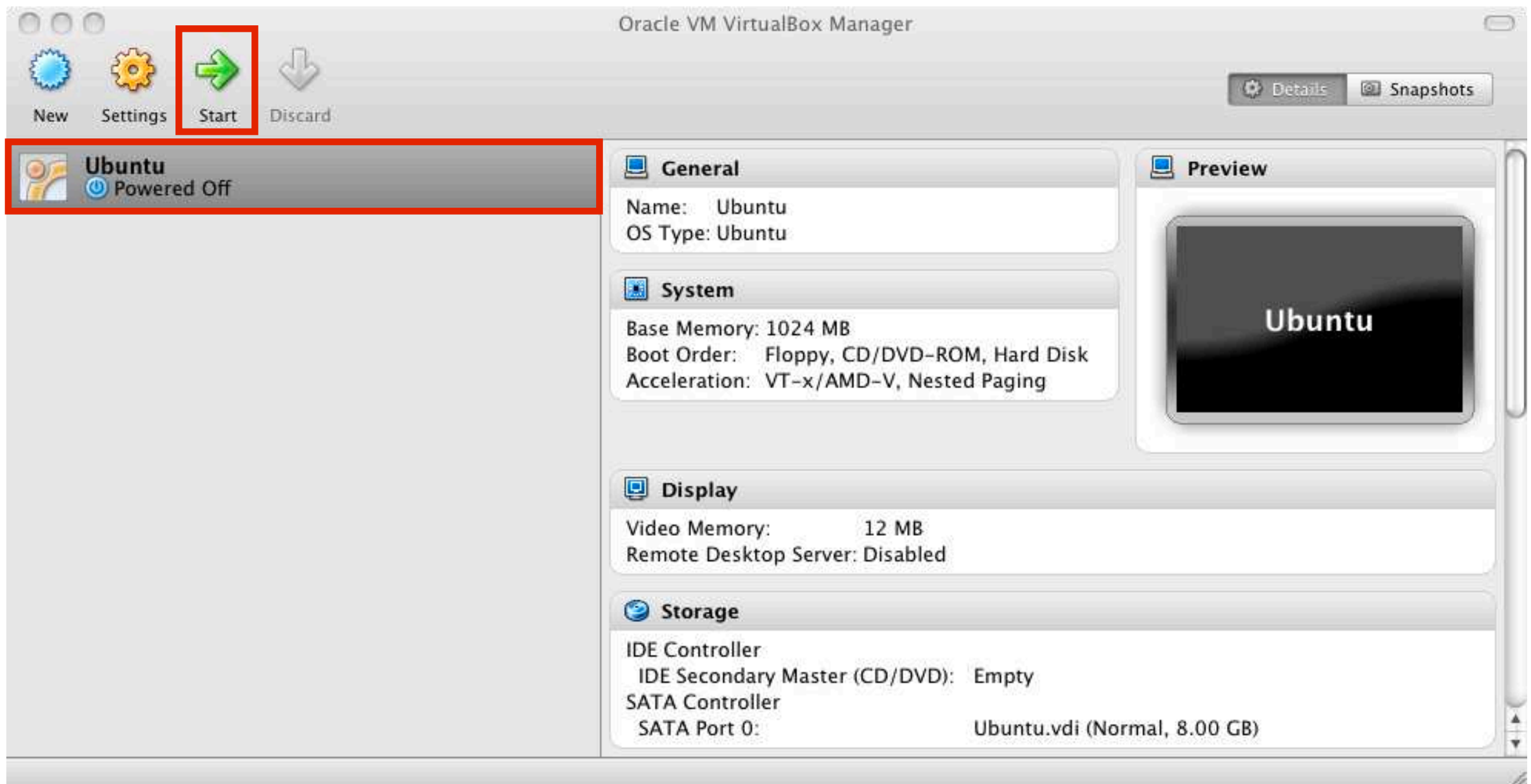
PC



Running Linux

I. Choose Ubuntu from left column and click Start

MAC & PC



Running Linux

2. Click continue on pop-up window

MAC



PC



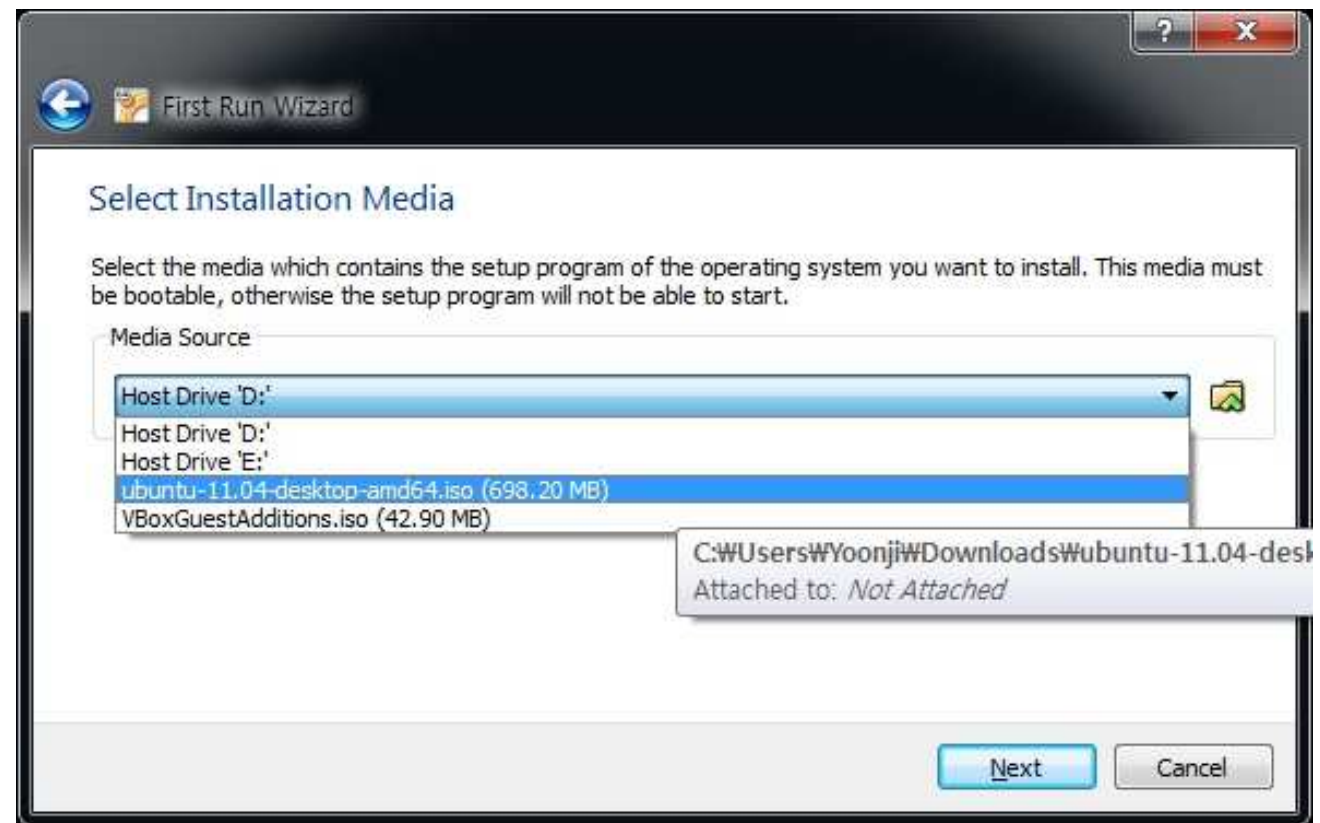
Running Linux

3. Click the folder icon and choose the ubuntu iso file you downloaded and click continue and start

MAC

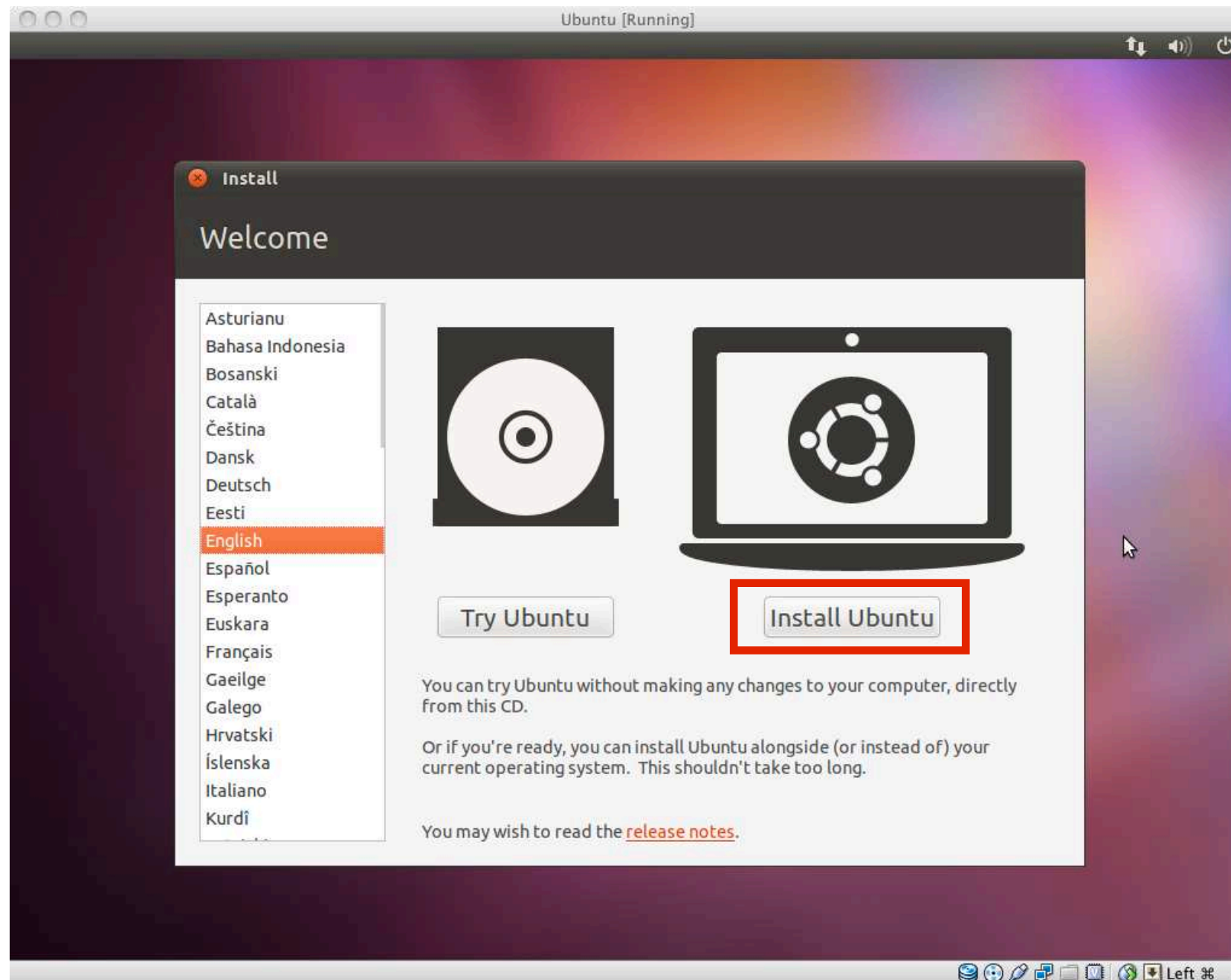


PC



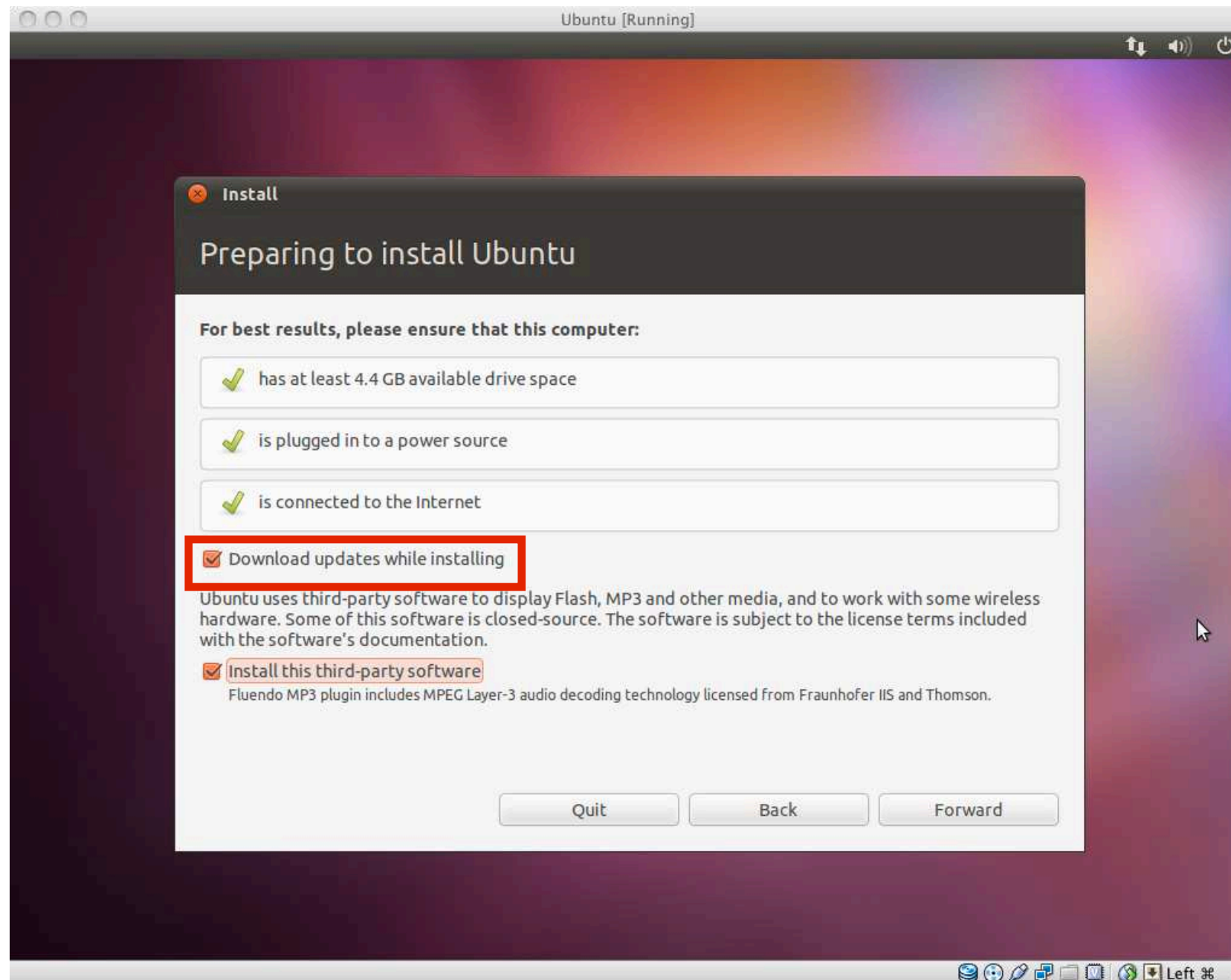
Running Linux

4. Click Install Ubuntu



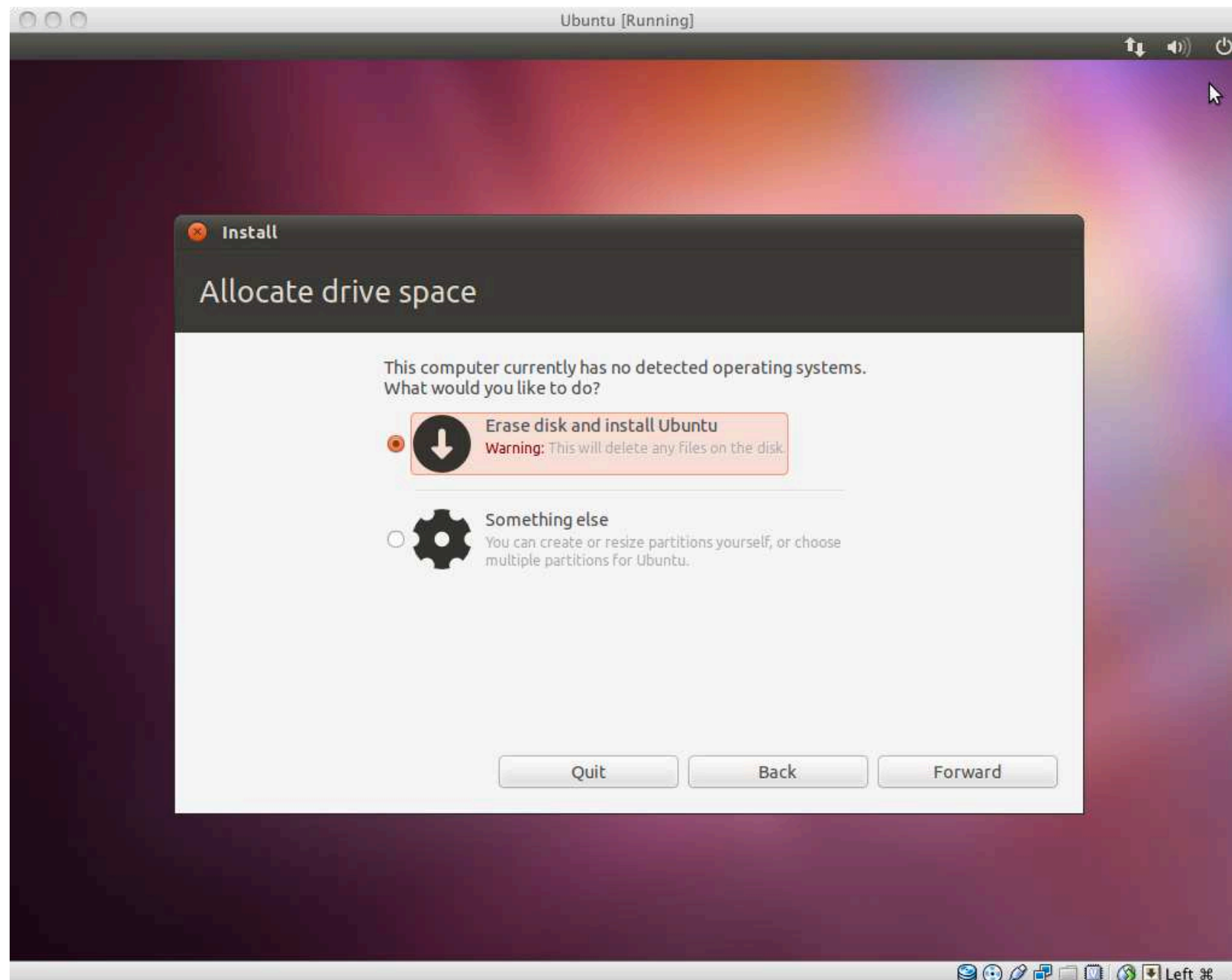
Running Linux

4. Check “Download updates” and click Forward



Running Linux

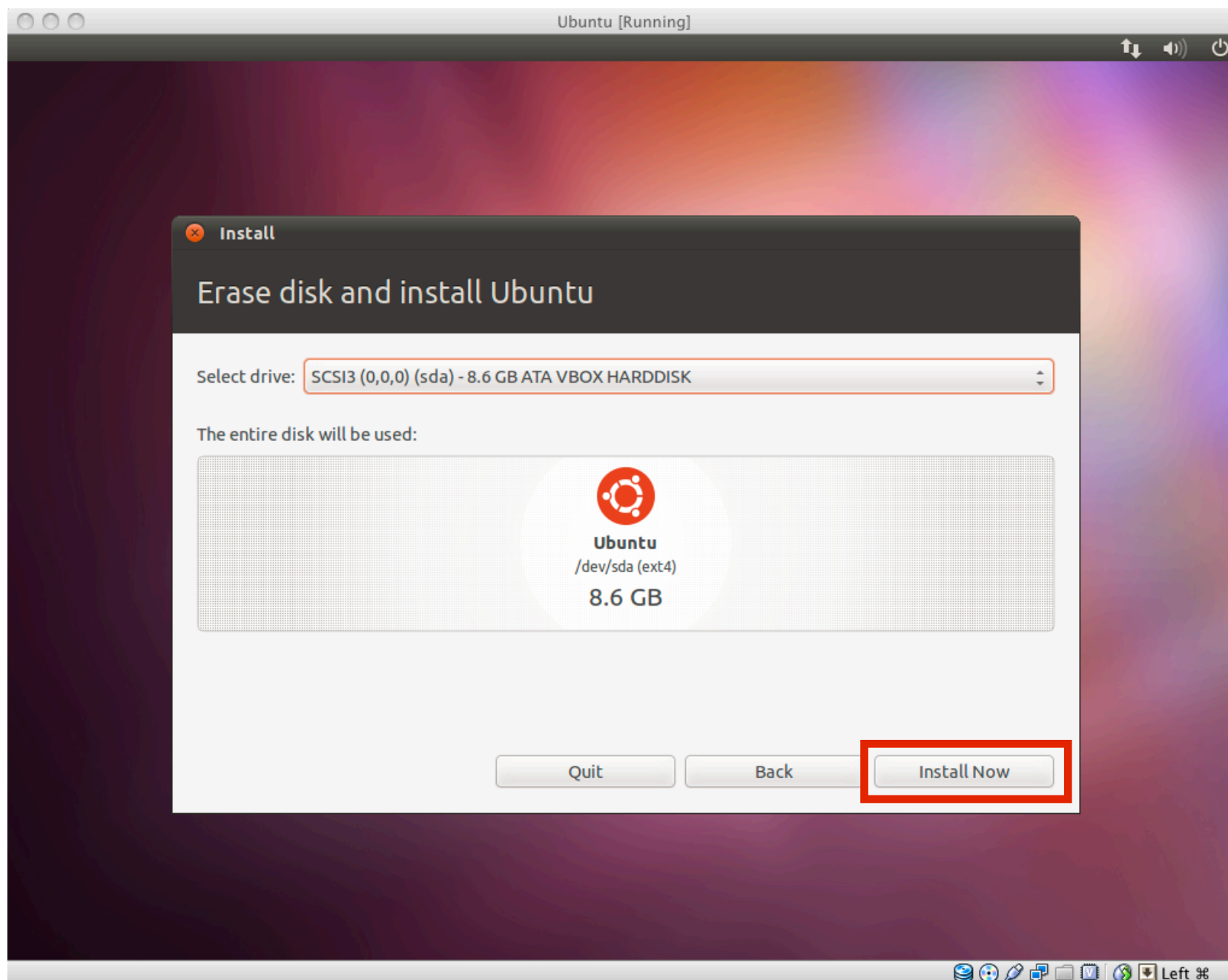
5. Choose “Erase disk and install Ubuntu” and click Forward (Don’t worry, it won’t wipe your computer)



Running Linux

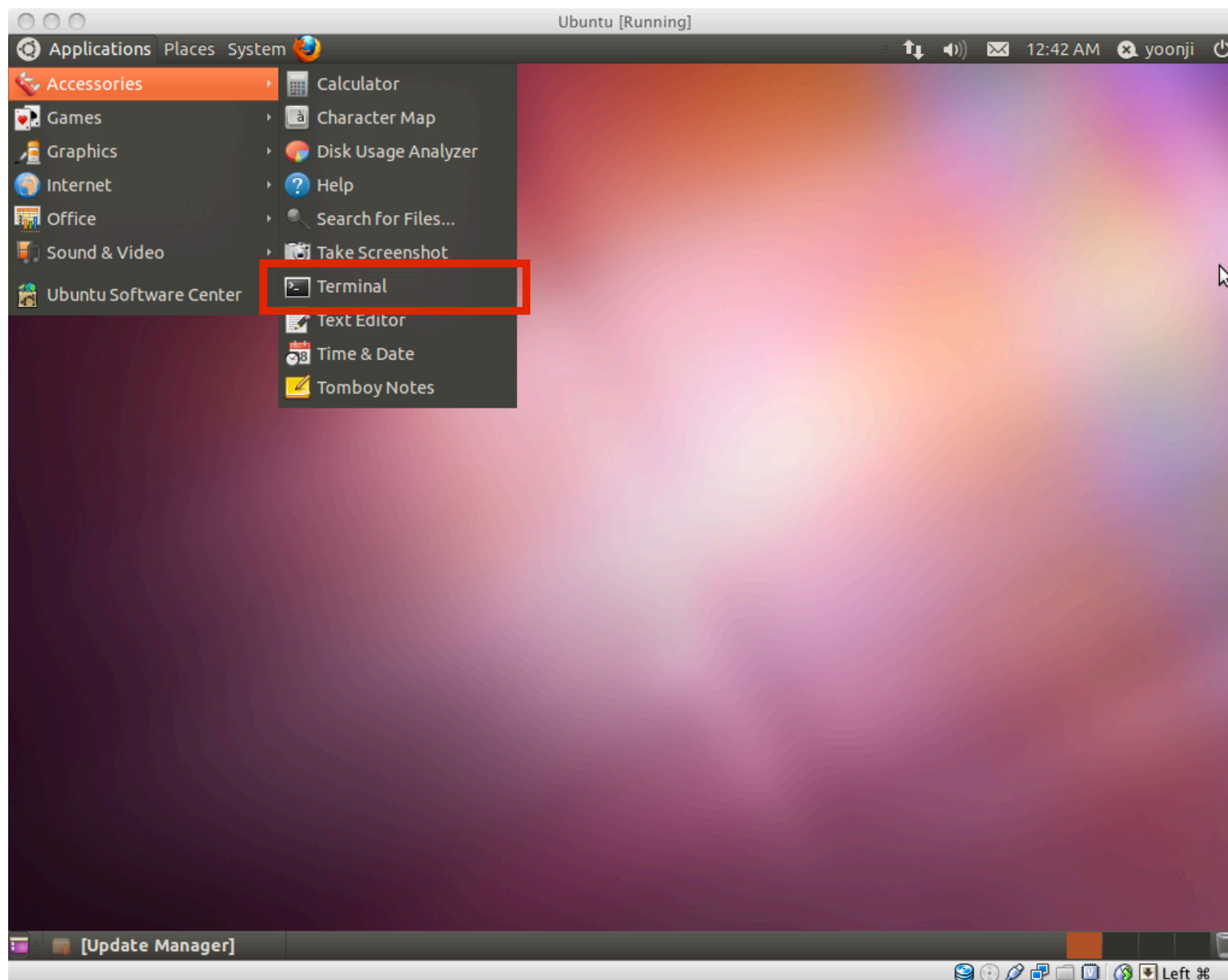
6. Click “Install Now” and wait. Maybe grab a snack.

7. When finished, click Restart and press Enter.



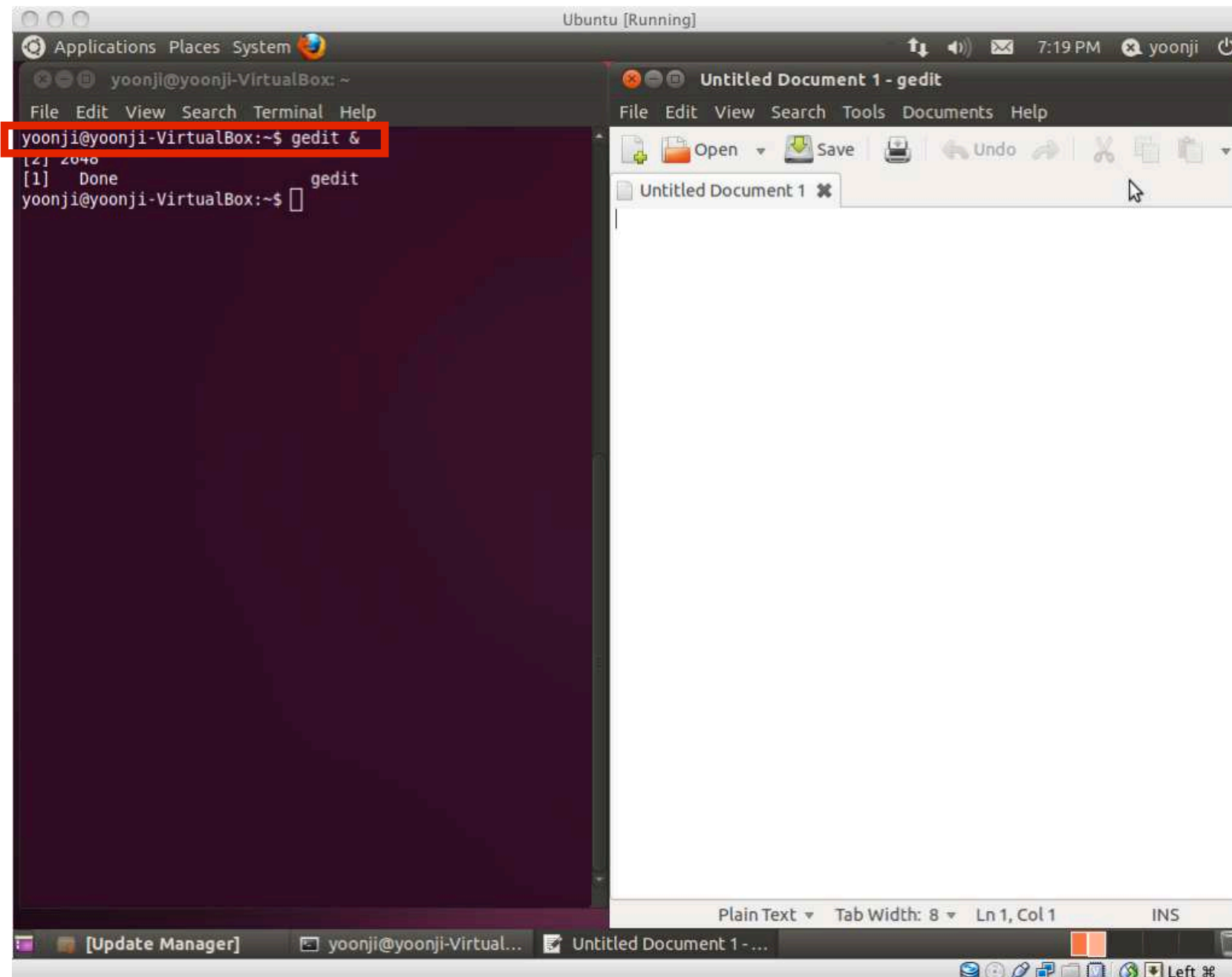
C Programming on Linux

I. Open Terminal (Applications-Accessories-Terminal)



C Programming on Linux

2. Open gedit by typing “gedit &” on terminal
(You can also use any other Text Editor application)



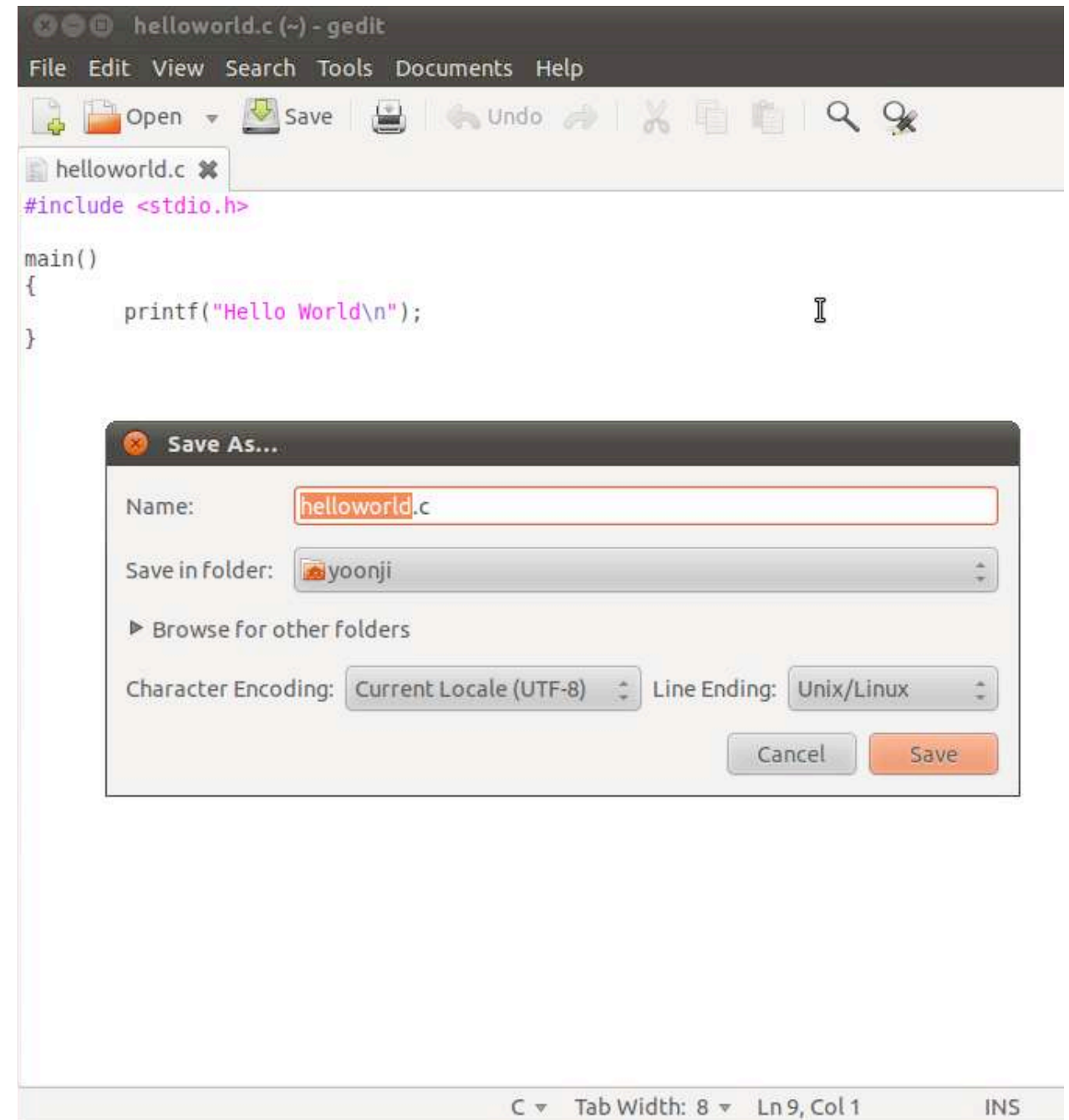
C Programming on Linux

3. Type the following on gedit (or any other text editor)

```
#include<stdio.h>

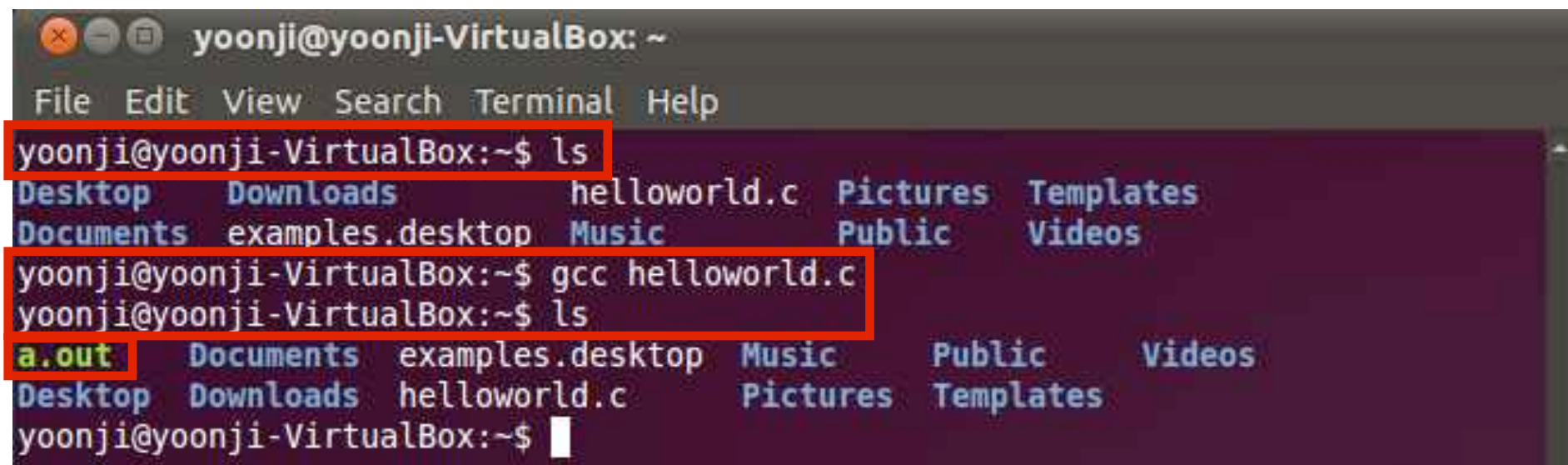
main( )
{
    printf("Hello World\n");
}
```

4. Save this file as “helloworld.c”



C Programming on Linux

5. Type “ls” on Terminal to see all files under current folder
6. Confirm that “helloworld.c” is in the current directory.
If not, type `cd DIRECTORY_PATH` to go to the directory that has “helloworld.c”
7. Type “gcc helloworld.c” to compile, and type “ls” to confirm that a new executable file “a.out” is created

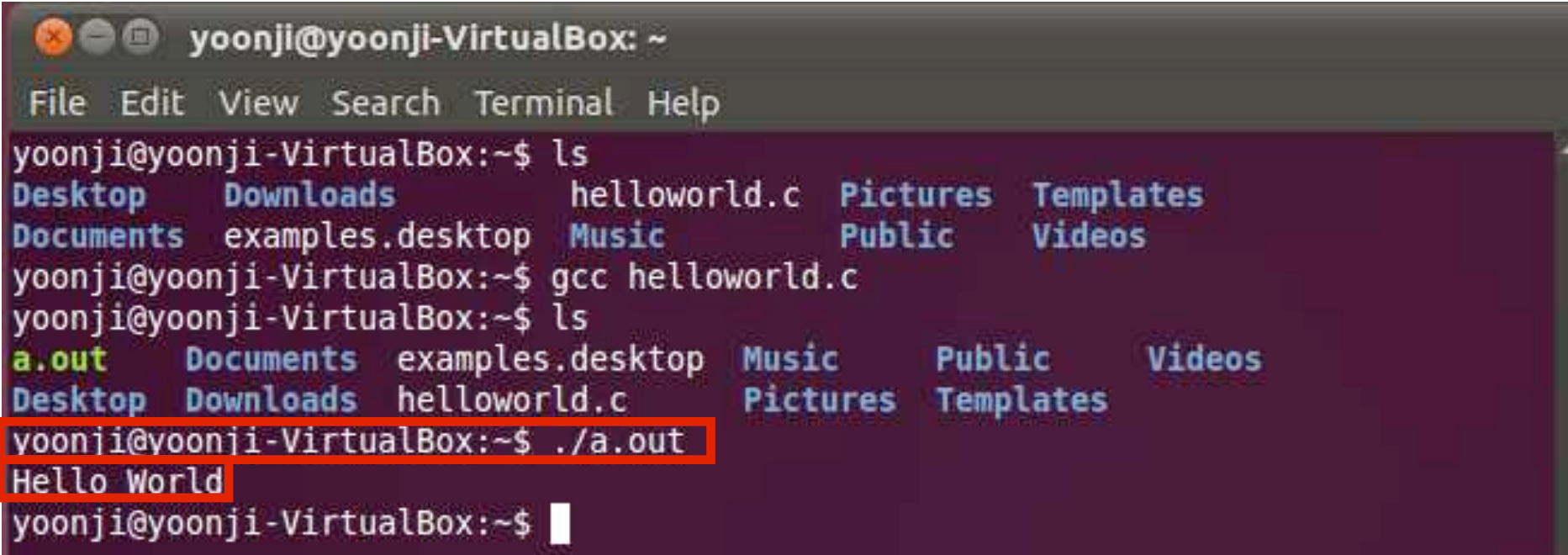


```
yoonji@yoonji-VirtualBox: ~  
File Edit View Search Terminal Help  
yoonji@yoonji-VirtualBox:~$ ls  
Desktop Downloads helloworld.c Pictures Templates  
Documents examples.desktop Music Public Videos  
yoonji@yoonji-VirtualBox:~$ gcc helloworld.c  
yoonji@yoonji-VirtualBox:~$ ls  
a.out Documents examples.desktop Music Public Videos  
Desktop Downloads helloworld.c Pictures Templates  
yoonji@yoonji-VirtualBox:~$
```

The screenshot shows a terminal window titled "yoonji@yoonji-VirtualBox: ~". The terminal has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The user enters the command `ls`, and the output lists various directories and files, including `helloworld.c`. Next, the user enters `gcc helloworld.c` to compile the program. Finally, the user enters `ls` again, and the output now includes `a.out`, confirming the successful compilation of the program into an executable file.

C Programming on Linux

8. Type “./a.out” on Terminal to run the program
9. If you see “Hello World” on the next line, you just successfully ran your first C program!
- ~~10. Try other codes from “A Shotgun Introduction to C” on professor Edwards’s webpage. You can also find many C programing guides online. (just google it!) Enjoy :)~~



```
yoonji@yoonji-VirtualBox: ~  
File Edit View Search Terminal Help  
yoonji@yoonji-VirtualBox:~$ ls  
Desktop Downloads helloworld.c Pictures Templates  
Documents examples.desktop Music Public Videos  
yoonji@yoonji-VirtualBox:~$ gcc helloworld.c  
yoonji@yoonji-VirtualBox:~$ ls  
a.out Documents examples.desktop Music Public Videos  
Desktop Downloads helloworld.c Pictures Templates  
yoonji@yoonji-VirtualBox:~$ ./a.out  
Hello World  
yoonji@yoonji-VirtualBox:~$
```