

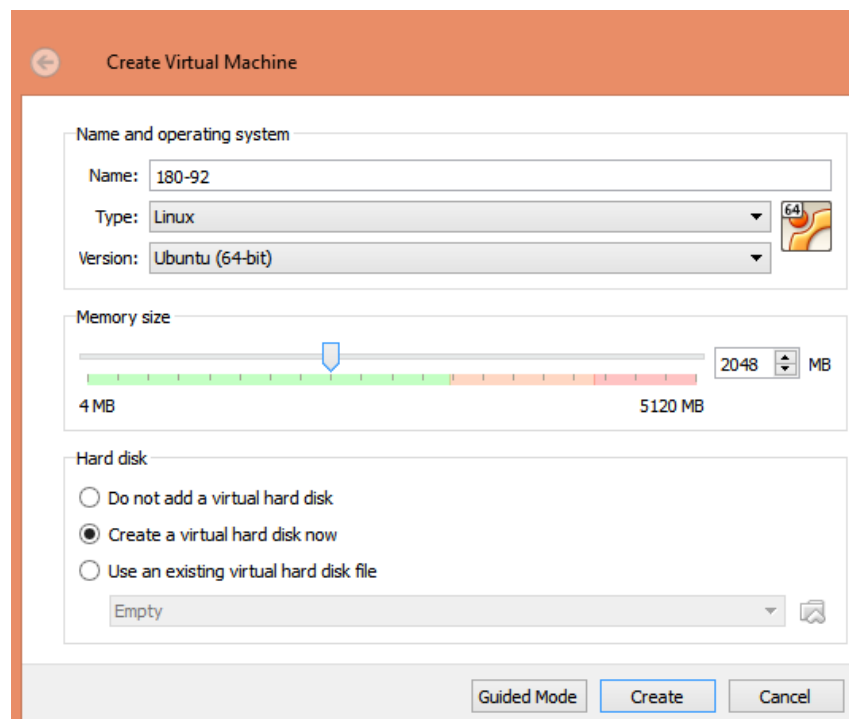
# Environment Setup Document

Note: By default virtualization is disabled in a few Lenovo laptops. If your system is a 64 bit system and you get error while loading Ubuntu on vbox, enable soft virtualization (svm) from boot menu(configurations tab)

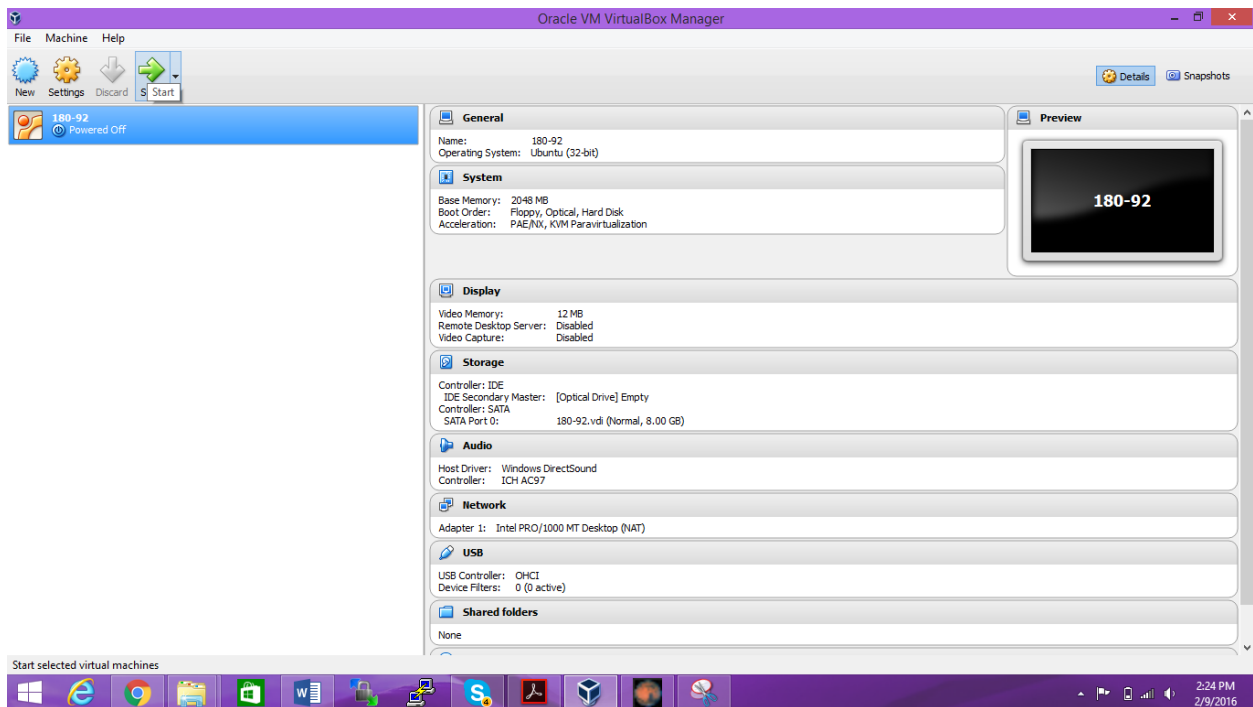
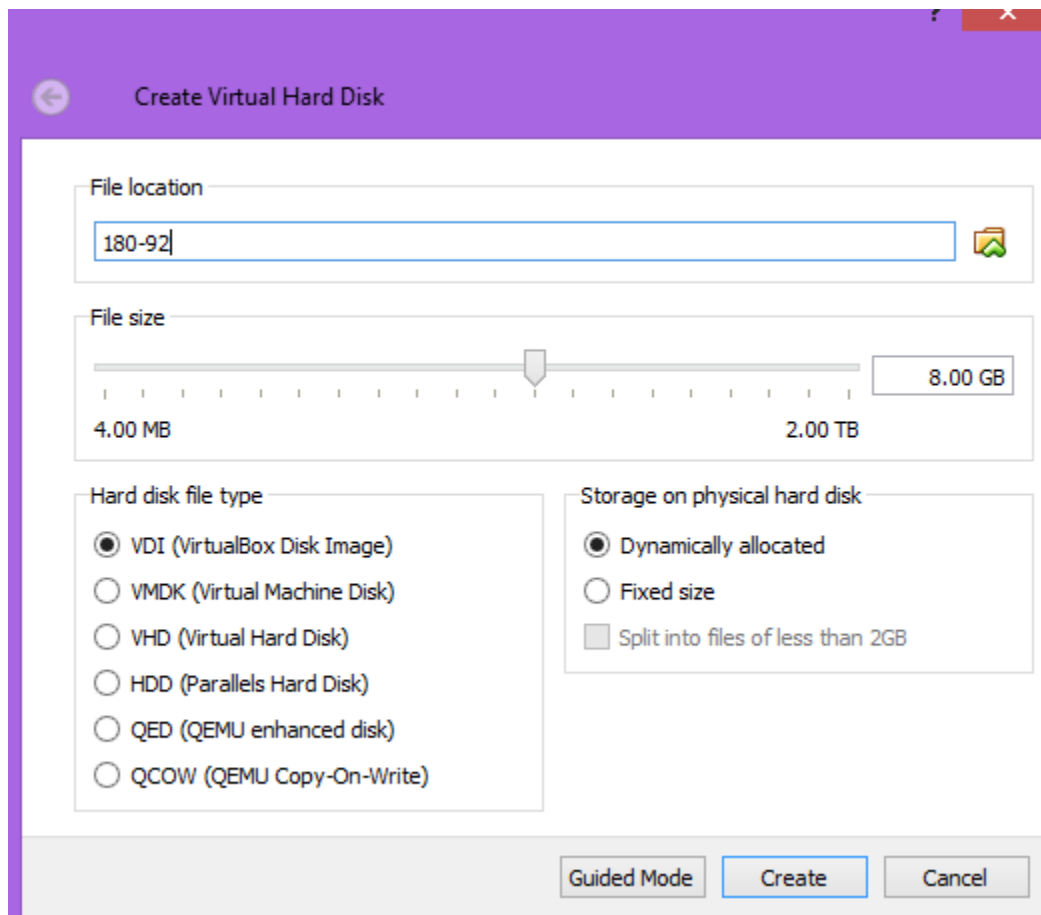
- Download Oracle Virtual Box from the following link  
<http://www.oracle.com/technetwork/server-storage/virtualbox/downloads/index.html>
- Install Ubuntu 14.04.3 from the following website( if the vbox created is 32bit download 32 bit Ubuntu else 64 bit)  
<http://www.ubuntu.com/download/desktop>
- Load Ubuntu on the virtual box
  - Open VBox



- Click New->enter name->type:linux->Version: Ubuntu(64/32 bit)->next
- Select Memory as 2048->click next->create

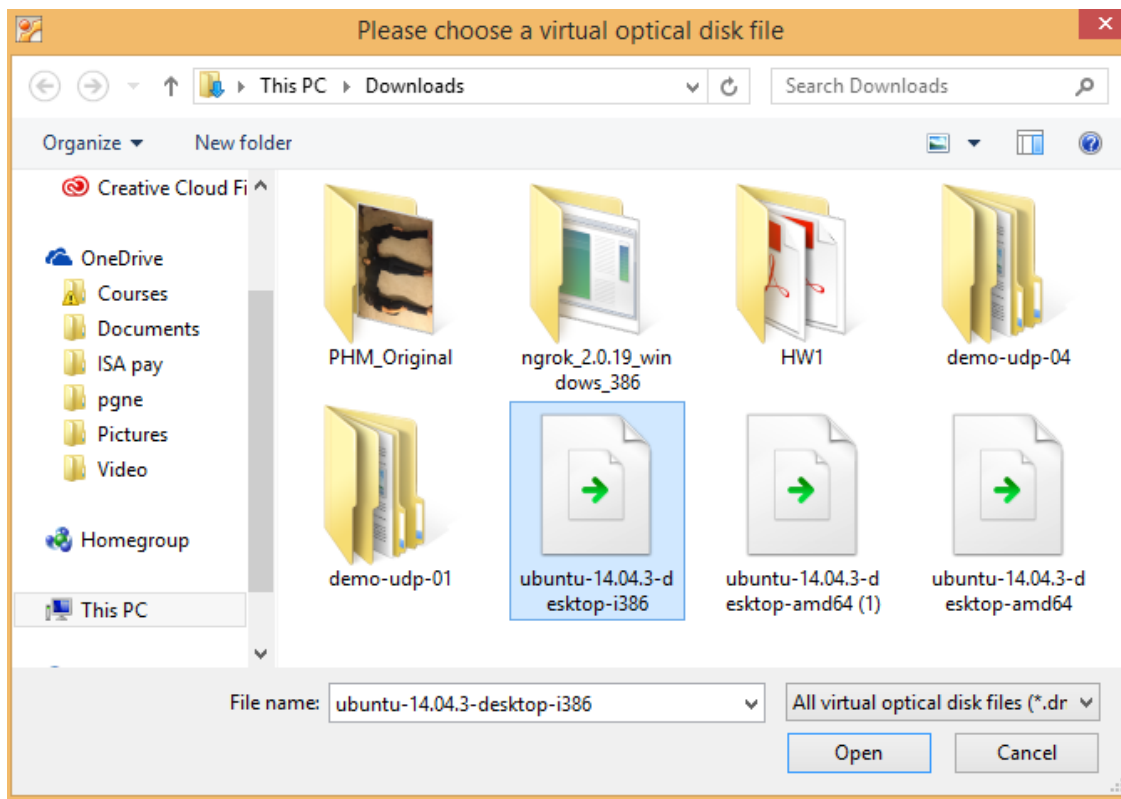
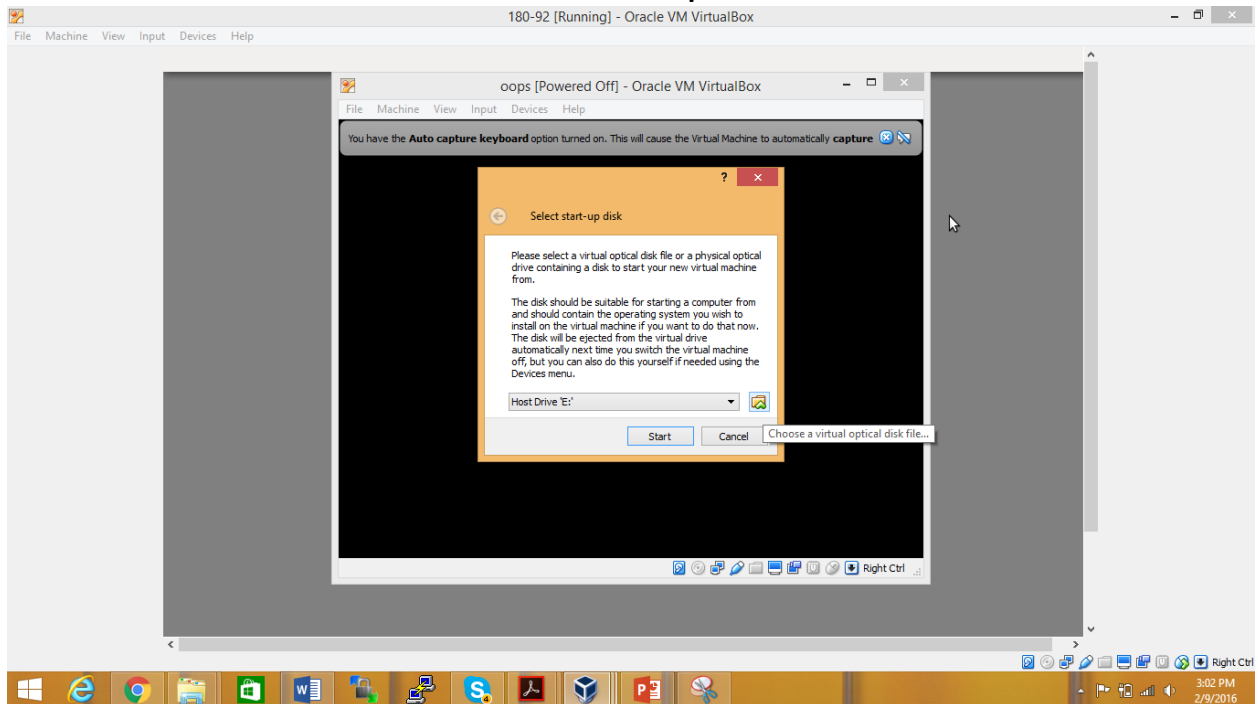


# Environment Setup Document



- browse the Ubuntu.iso image downloaded in step 2->start

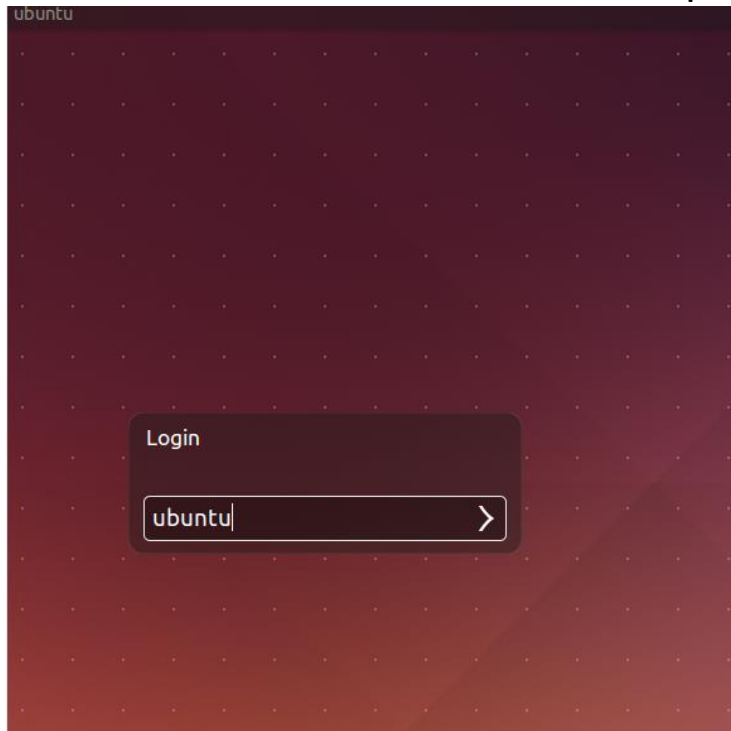
# Environment Setup Document



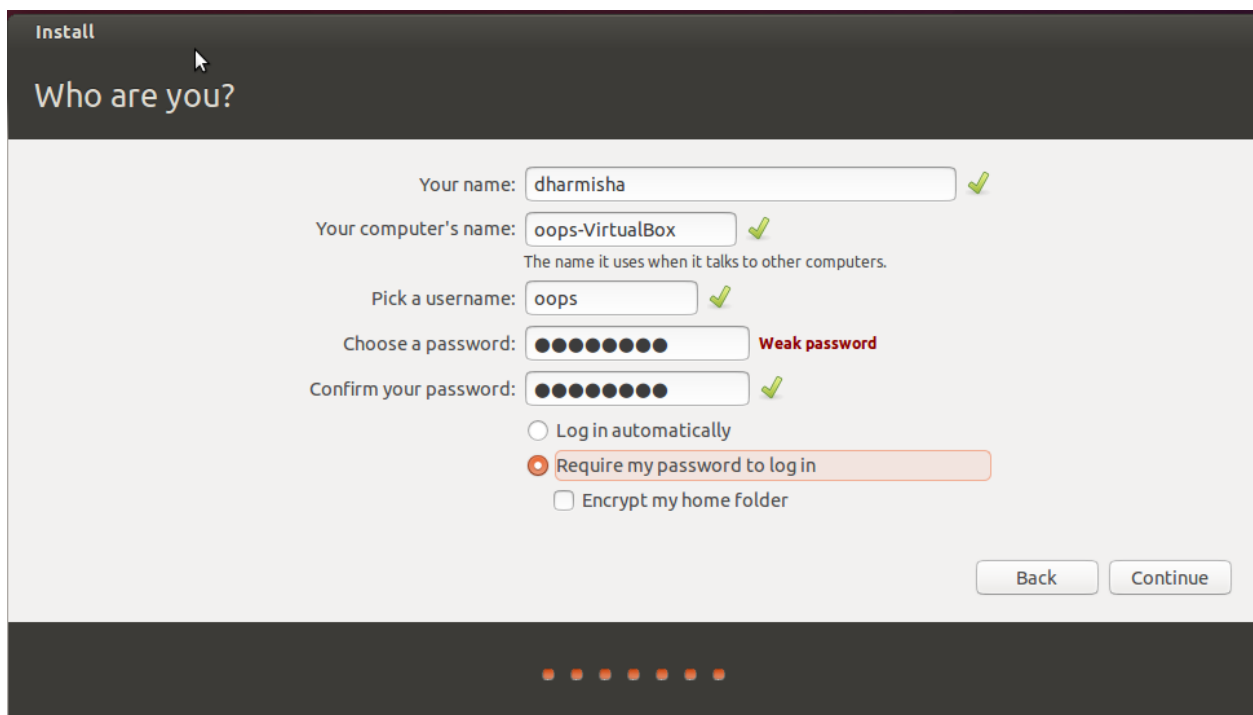
## Login

- Login with the default user name i.e **ubuntu** in small letters, there is no password

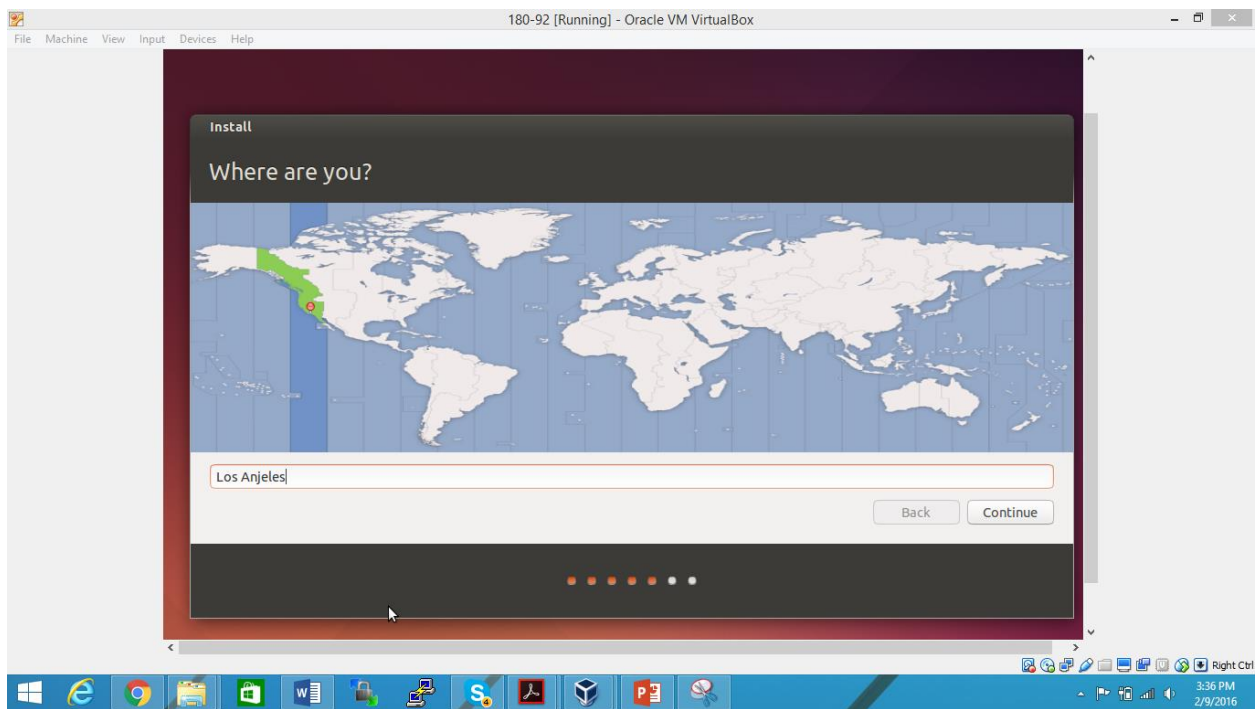
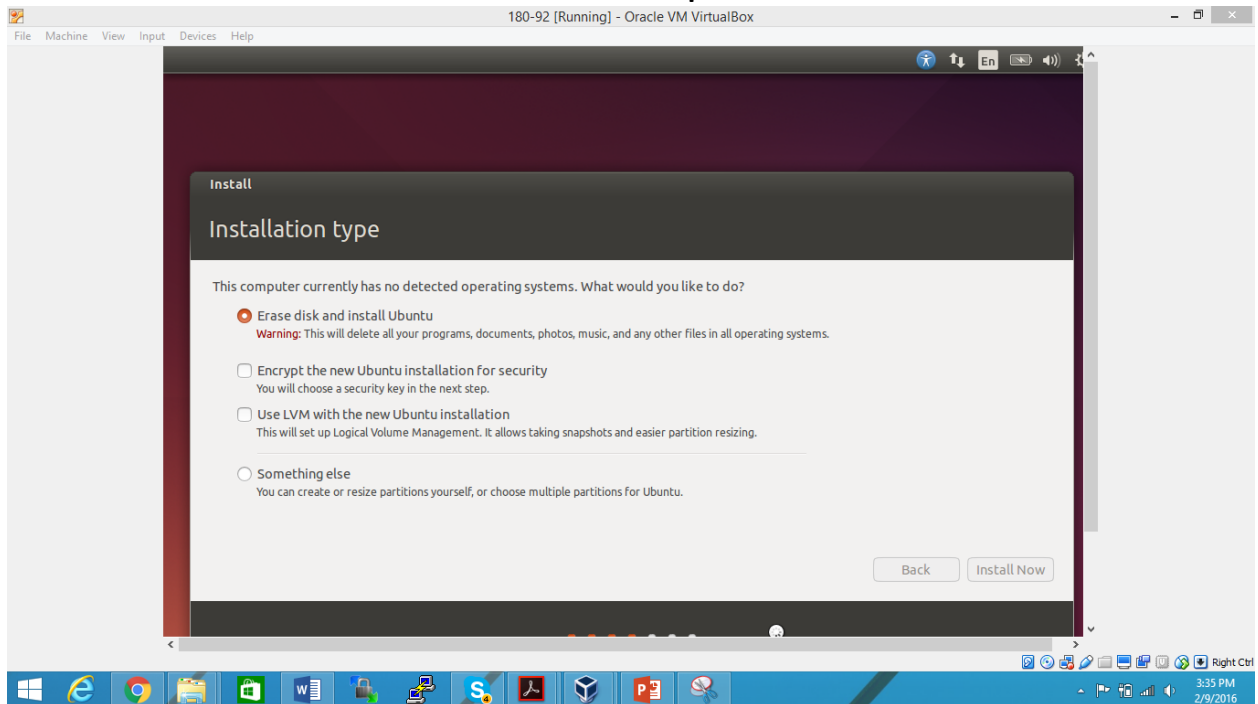
# Environment Setup Document



- After logging in click-> install Ubuntu-> and follow steps

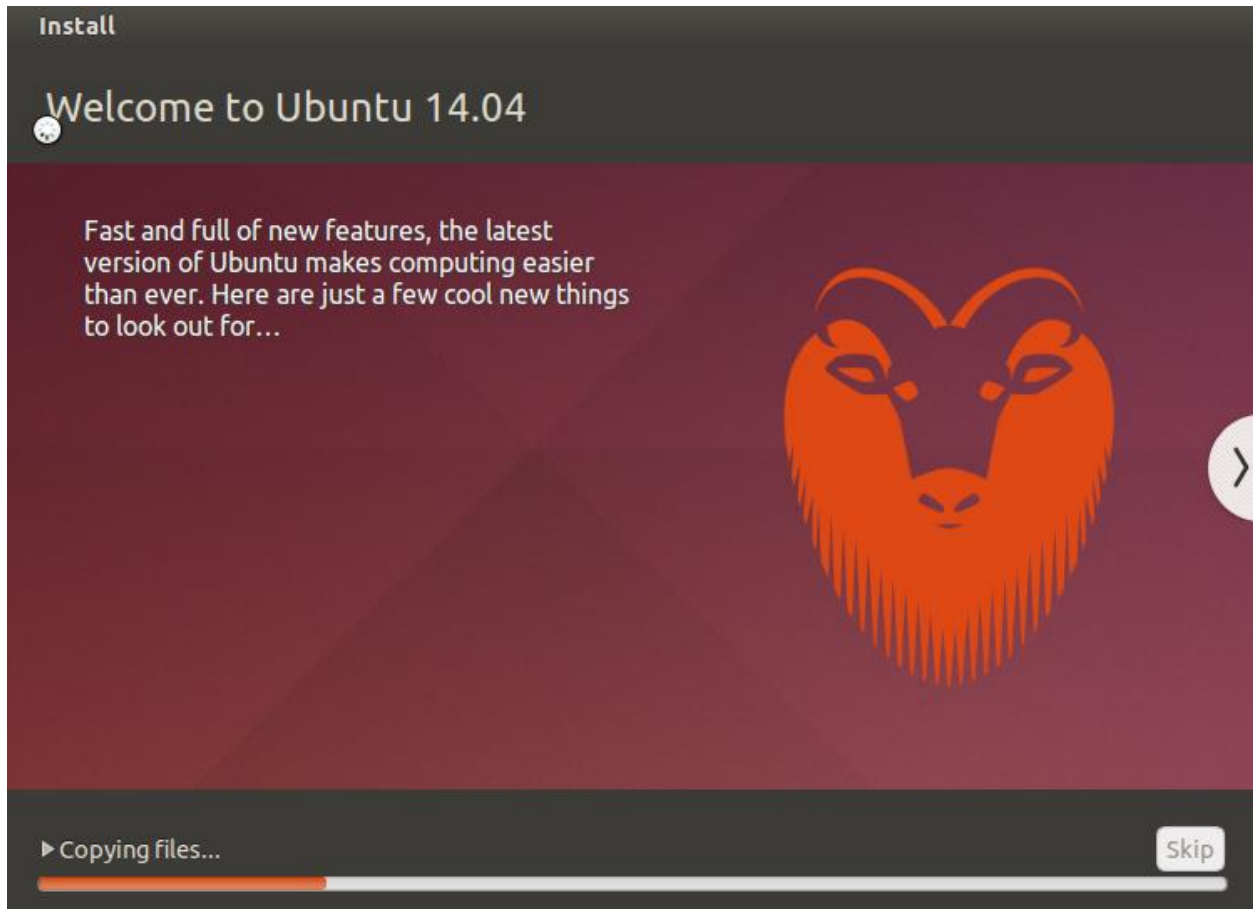
A screenshot of the Ubuntu installation window titled "Install". The main heading is "Who are you?". The form contains several fields: "Your name:" with the value "dharmisha" and a green checkmark; "Your computer's name:" with the value "oops-VirtualBox" and a green checkmark, with a subtext "The name it uses when it talks to other computers."; "Pick a username:" with the value "oops" and a green checkmark; "Choose a password:" with a masked password and a red "Weak password" warning; "Confirm your password:" with a masked password and a green checkmark. There are three radio button options: "Log in automatically", "Require my password to log in" (which is selected and highlighted with an orange border), and "Encrypt my home folder" (which is unchecked). At the bottom right are "Back" and "Continue" buttons. A progress bar at the very bottom shows six steps, with the first one being active.

# Environment Setup Document



# Environment Setup Document

- Ubuntu will be installed



- Open the terminal using ctrl+alt+t and enter the following commands to install g++ and enabling C++ 11 features
  - `sudo apt-get install g++`
  - Enter password for vm

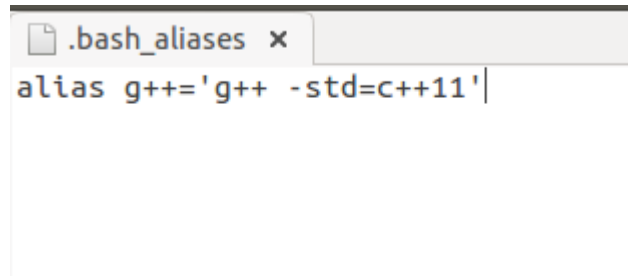
```
oops@oops-VirtualBox: ~  
oops@oops-VirtualBox:~$ sudo apt-get install g++  
[sudo] password for oops: 
```

- `gedit ~/.bash_aliases`

```
oops@oops-VirtualBox: ~  
oops@oops-VirtualBox:~$ gedit ~/.bash_aliases
```

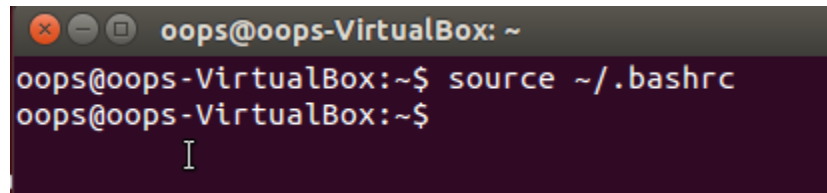
# Environment Setup Document

- A text file opens, enter the following alias
  - `alias g++='g++ -std=c++11'`
  - press ctrl+s (saving the file) and close it



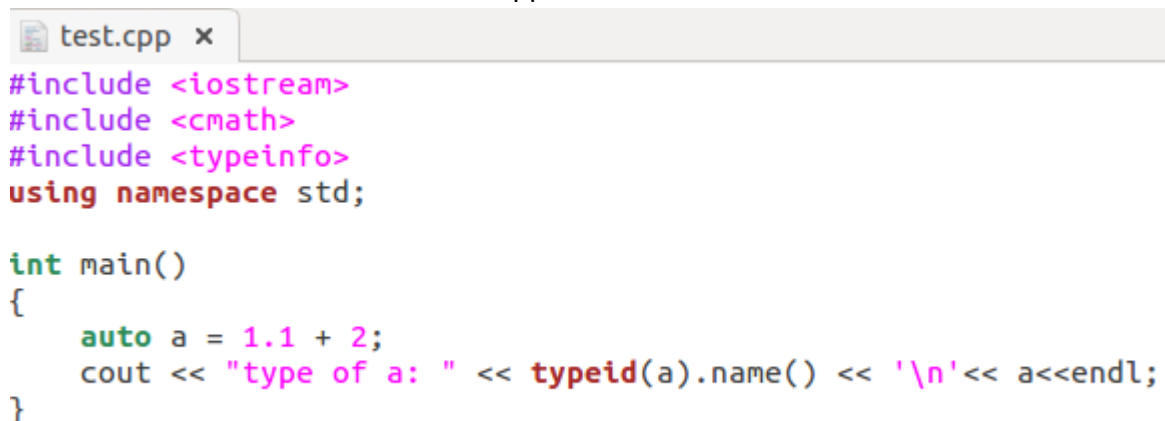
```
.bash_aliases x
alias g++='g++ -std=c++11'
```

- Enter `source ~/.bashrc` to implement the changes made



```
oops@oops-VirtualBox: ~
oops@oops-VirtualBox:~$ source ~/.bashrc
oops@oops-VirtualBox:~$
```

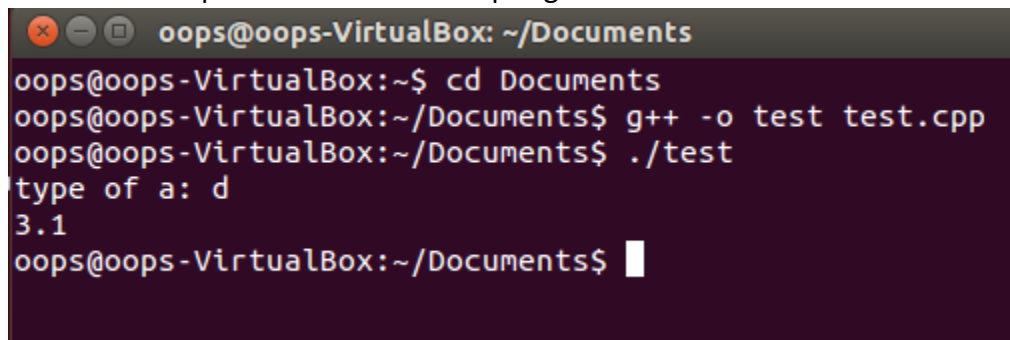
- Enter a simple program as follows to test c++ 11 features in a text file in my documents and save it as test.cpp



```
test.cpp x
#include <iostream>
#include <cmath>
#include <typeinfo>
using namespace std;

int main()
{
    auto a = 1.1 + 2;
    cout << "type of a: " << typeid(a).name() << '\n' << a << endl;
}
```

- Compile and run the same. If there are errors such as type of 'a' is undefined, recheck and perform the above steps again.



```
oops@oops-VirtualBox: ~/Documents
oops@oops-VirtualBox:~$ cd Documents
oops@oops-VirtualBox:~/Documents$ g++ -o test test.cpp
oops@oops-VirtualBox:~/Documents$ ./test
type of a: d
3.1
oops@oops-VirtualBox:~/Documents$
```

- Congratulations! Your Environment is set up.