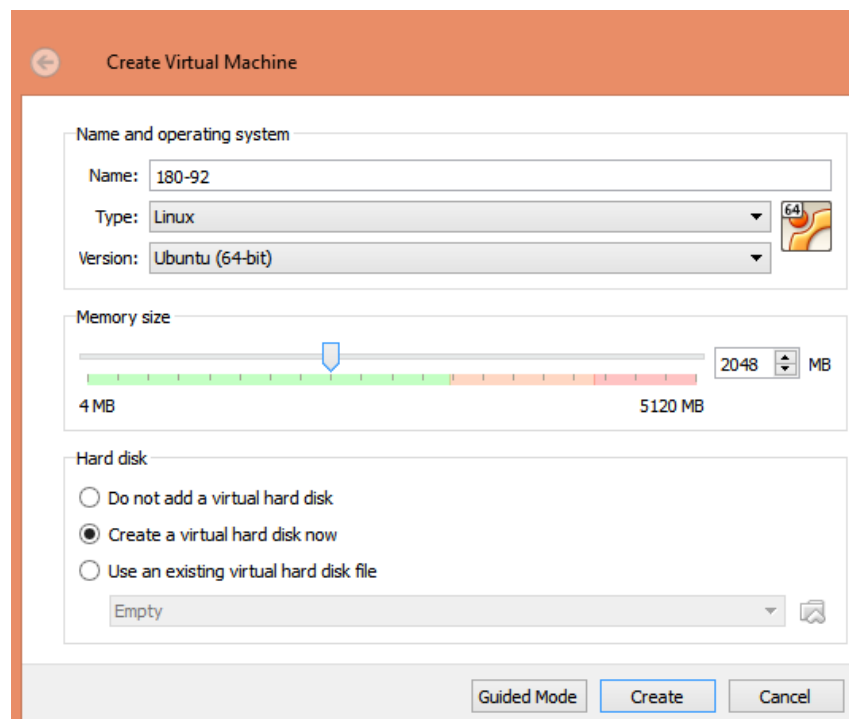# Environment Setup Document

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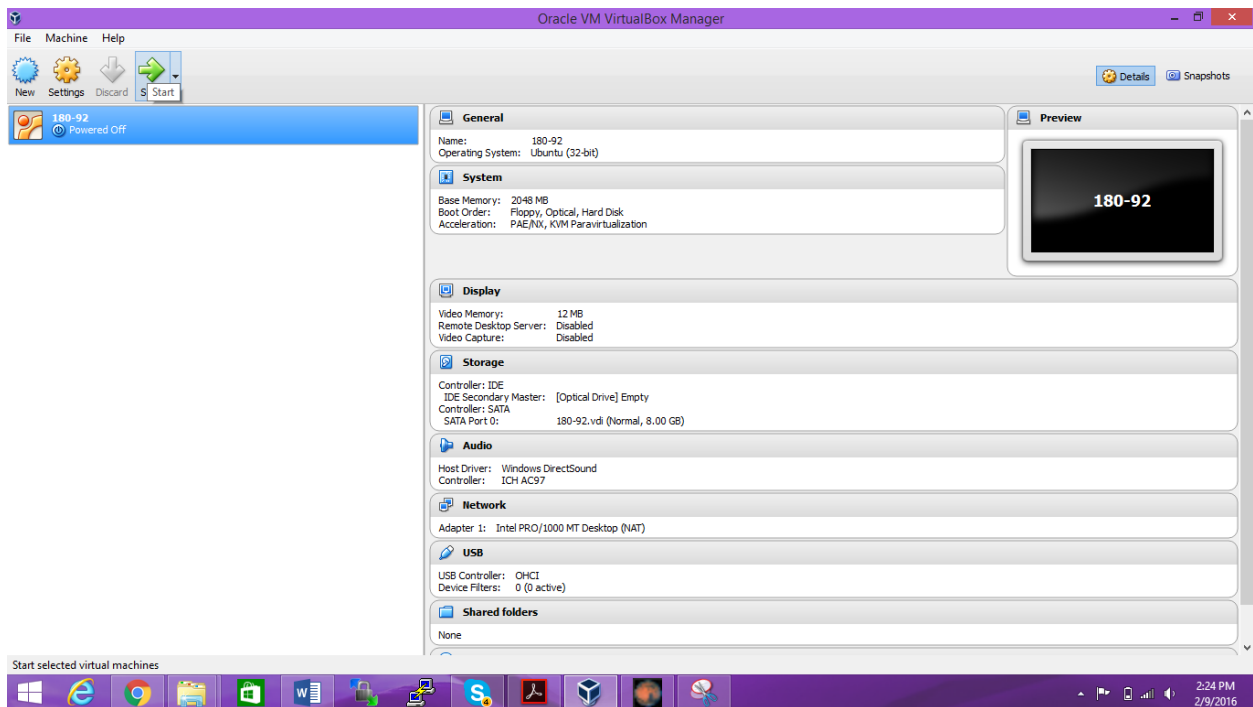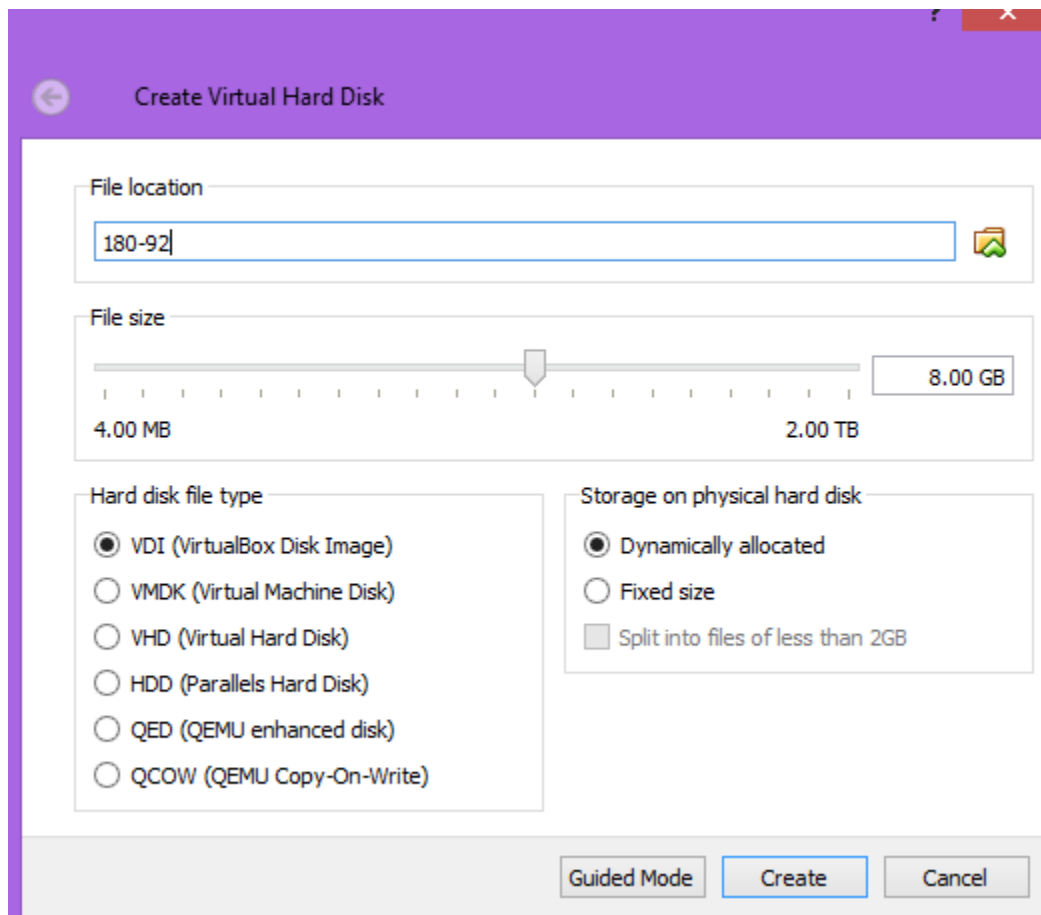
- Download Oracle Virtual Box from the following link
  http://www.oracle.com/technetwork/server-storage/virtualbox/downloads/index.html
- Install Ubuntu 14.04.3 from the following website(if the vbox created is 32bit download 32 bit Ubuntu else 64 bit)
  http://www.ubuntu.com/download/desktop
- Load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

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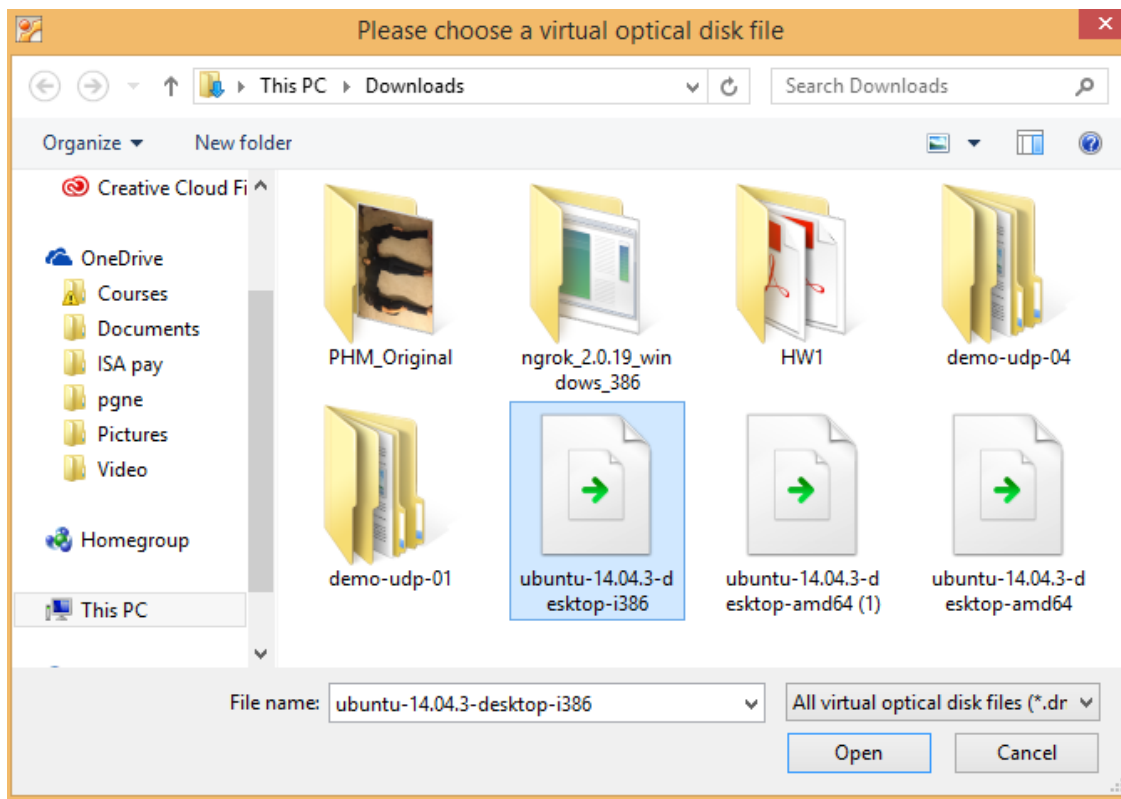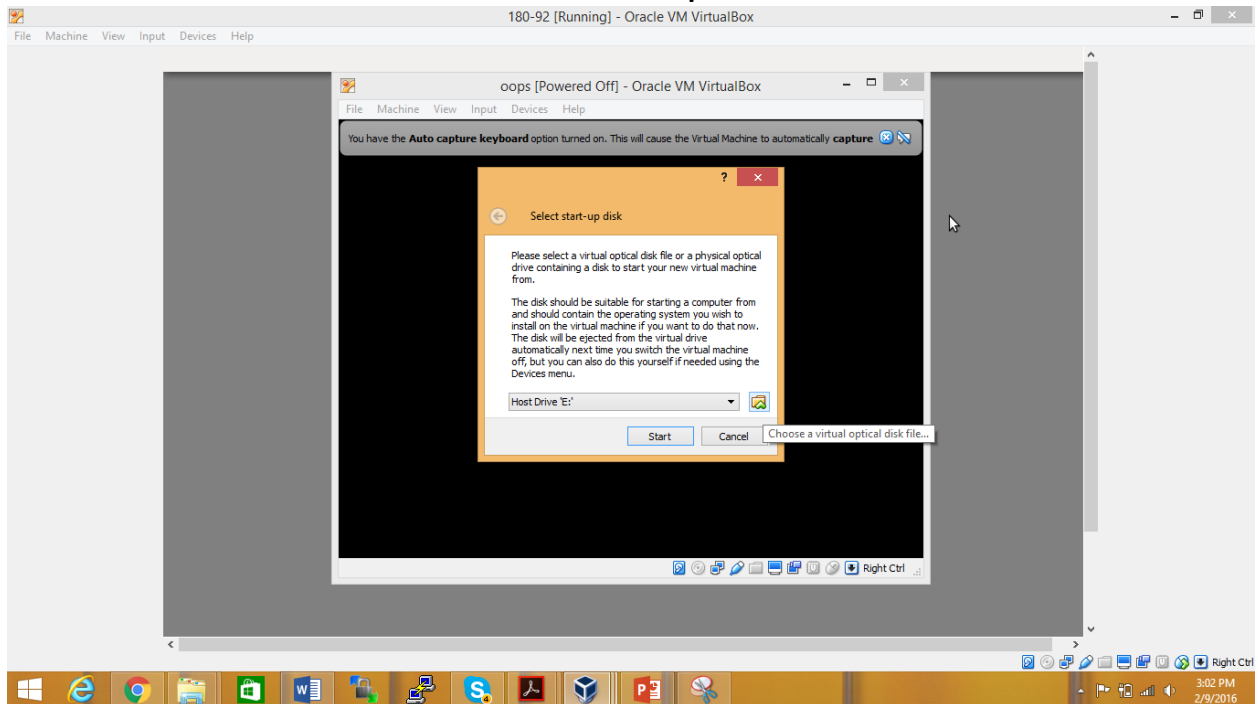 - Select Memory as 2048->click next->create

Environment Setup Document

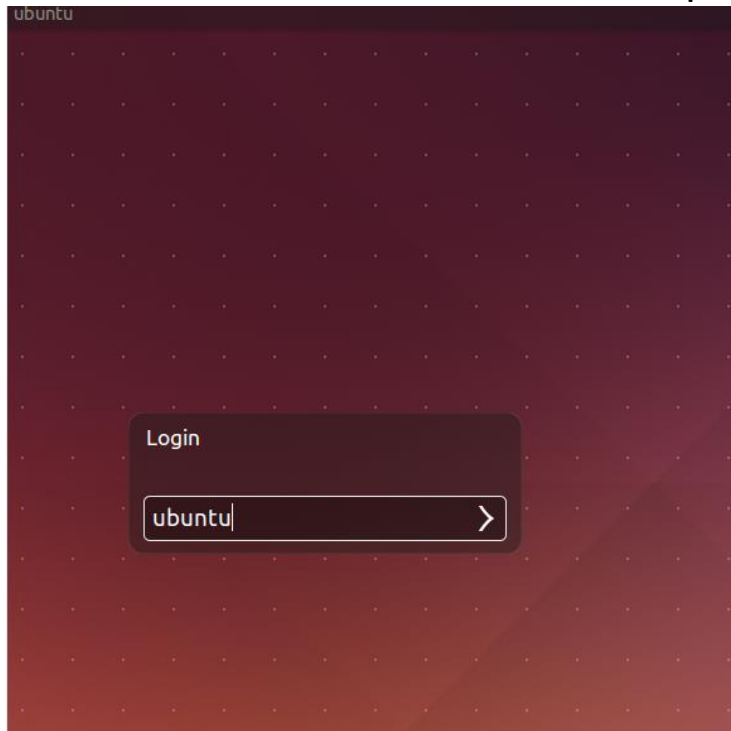- o browse the Ubuntu.iso image downloaded in step 2->start
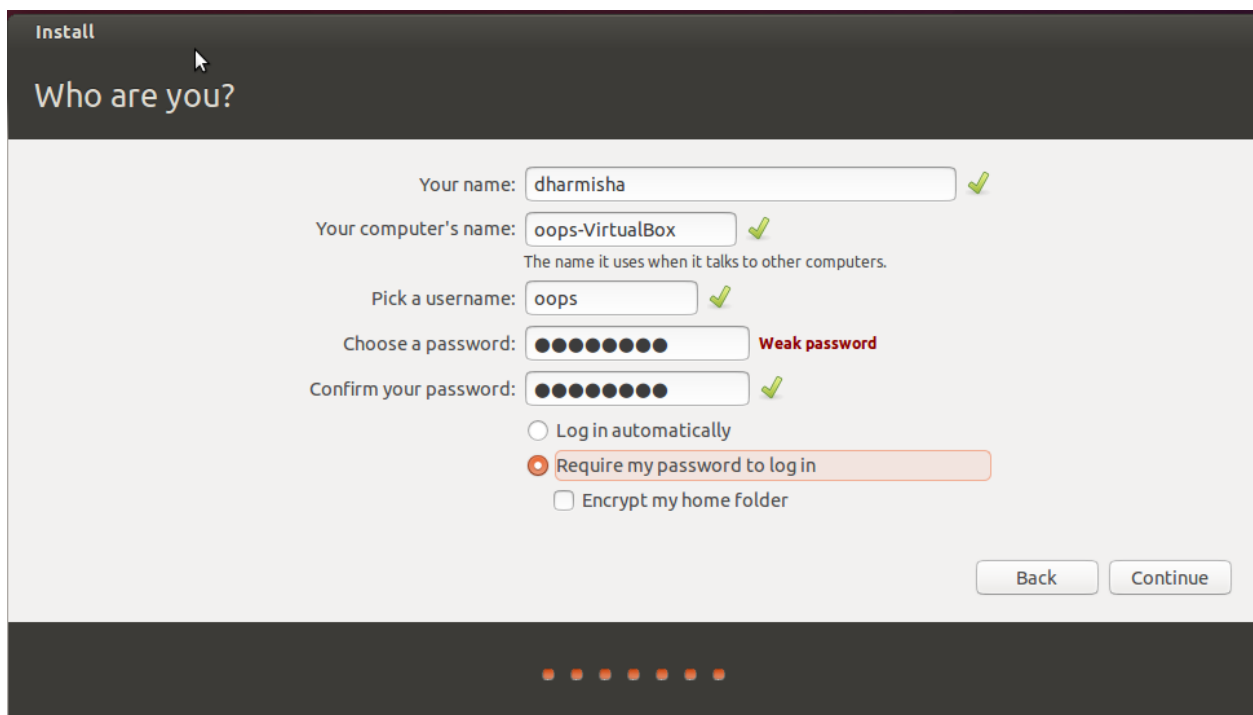
Environment Setup Document

Login

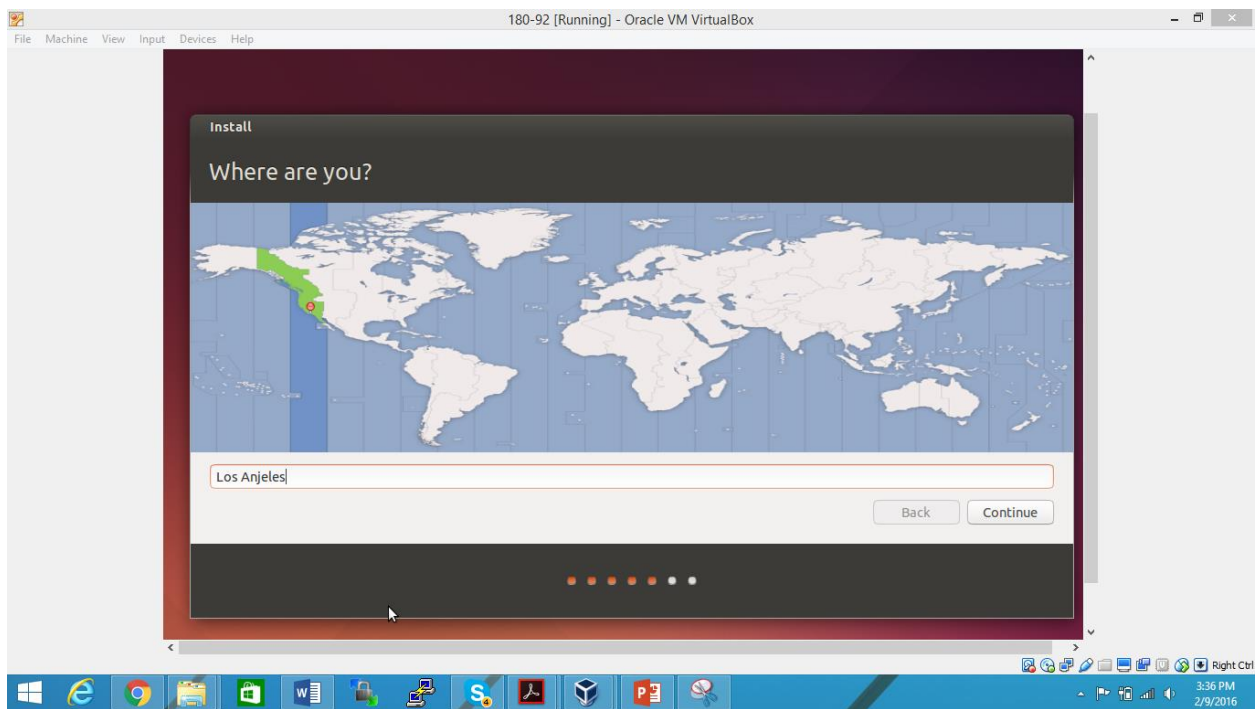- o Login with the default user name i.e **ubuntu** in small letters, there is no password

Environment Setup Document
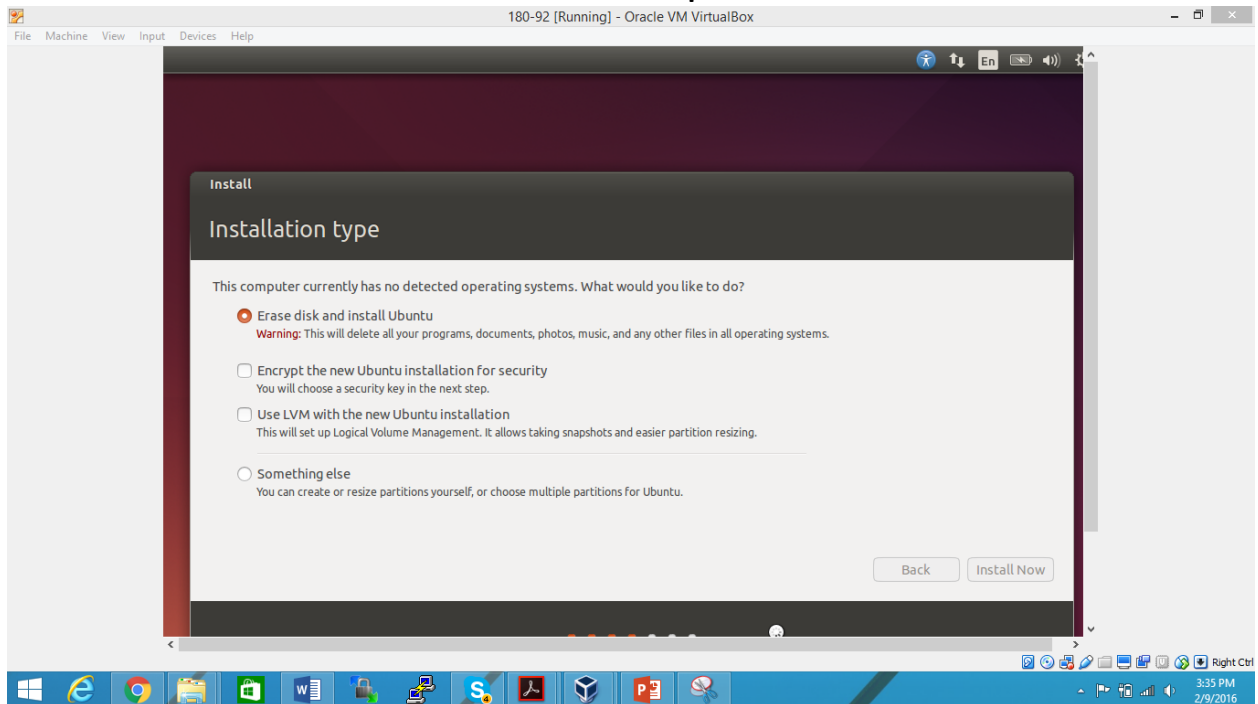

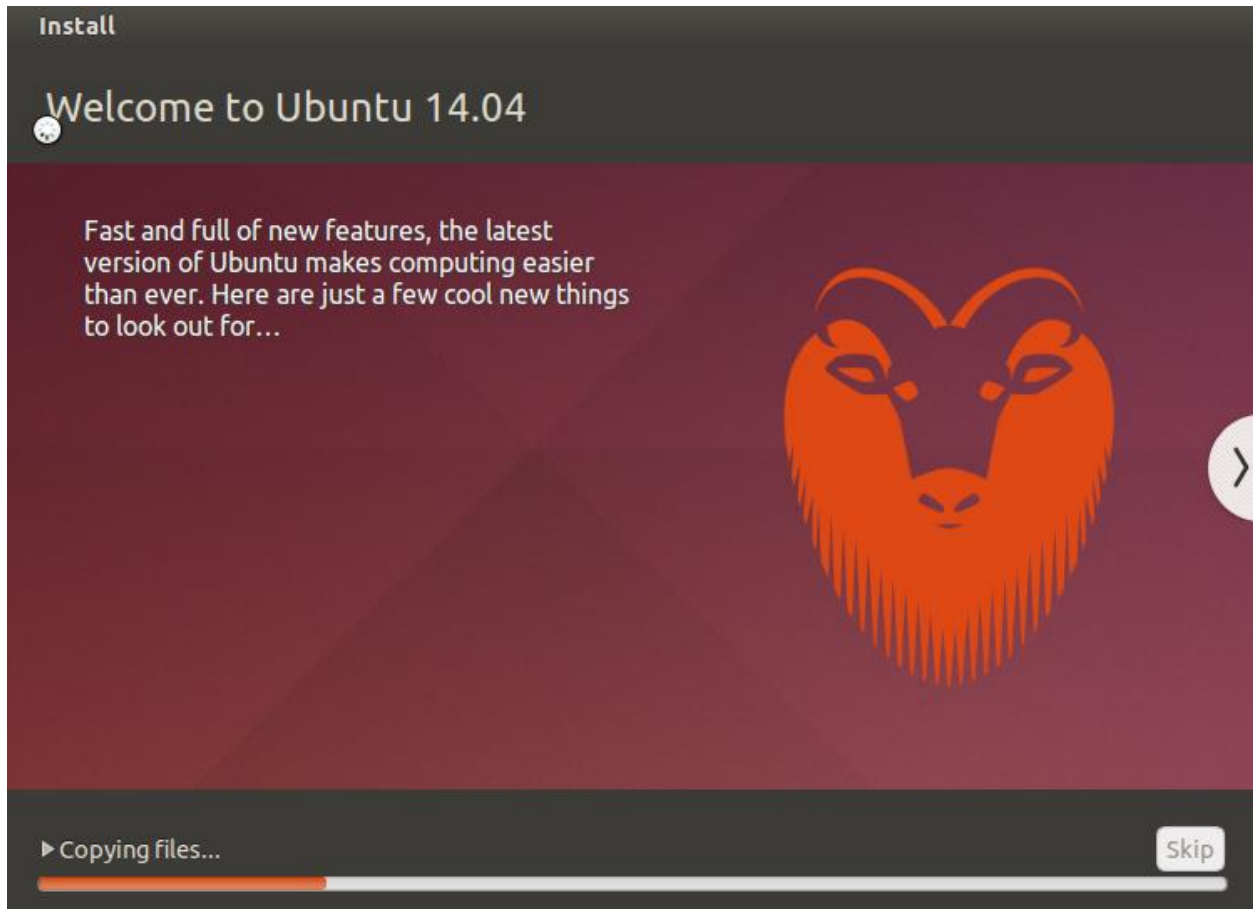 o After logging in click-> install Ubuntu-> and follow steps

Environment Setup Document

Environment Setup Document

- o Ubuntu will be installed

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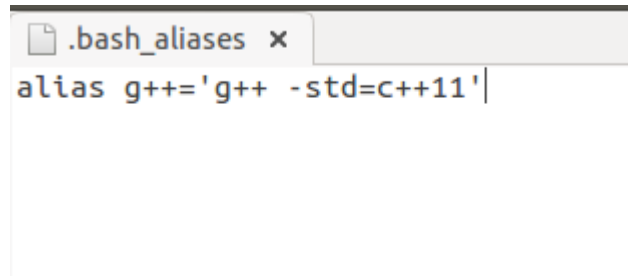 - o Enter password for vm
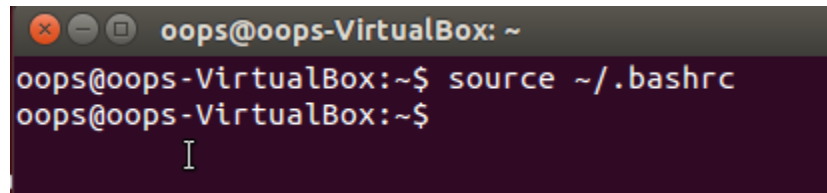

  - o gedit ~/.bash_aliases

Environment Setup Document

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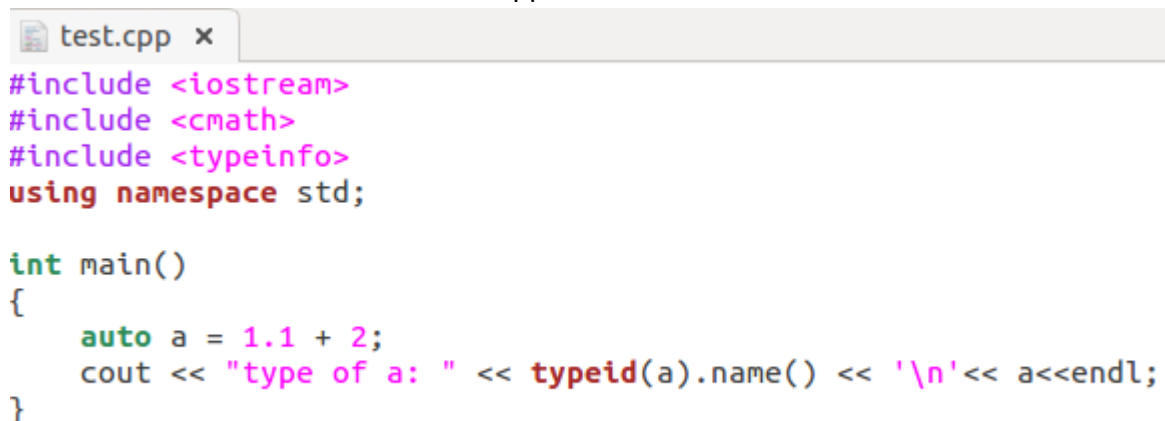 - press ctrl+s (saving the file) and close it

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

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

```
oops@oops-VirtualBox: ~
oops@oops-VirtualBox:~$ source ~/.bashrc
oops@oops-VirtualBox:~$
```
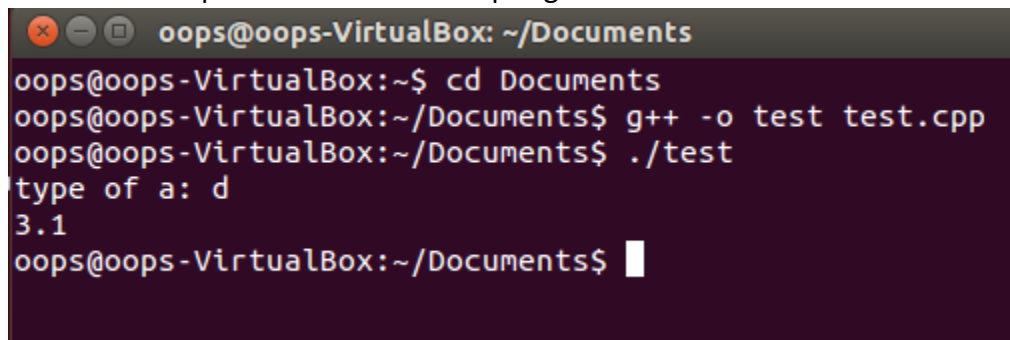
- o Enter a simple program as follows to test c++ 11 features in a text file in my documents and save it as test.cpp

```
test.cpp ×
#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;
}
```

- o 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.