# Linux Image Setup Guide

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In this semester, you will use a virtual machine with Linux operating system image for three projects. It is the guideline for installing free virtual machine, 'VirtualBox', and Linux image uploaded on KLMS. You should follow this guideline before starting project #1.

This guideline is made based on Windows 10 operating system. However, it also works on MAC operating system. TAs have already confirmed both operating systems.

If you have some problems to install Linux image, please contact to charge TAs.

I. **Download Linux image from KLMS.**
In KLMS, we provide a google drive link to download the image, and its filename is CS311_Ubuntu14.04_Alpha_SPEC2000_v2.ova. Or, you can directly download it from https://drive.google.com/file/d/1o7nad2-OJj07nRKiN8Sr5VR02L2kFr1V/edit

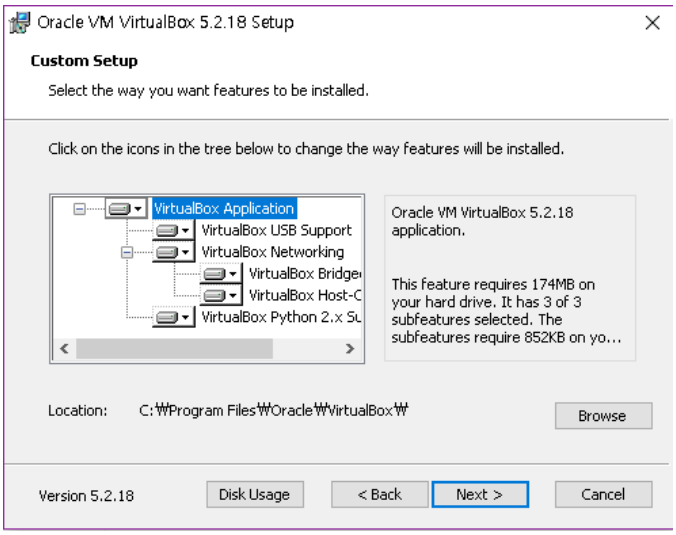
II. **Download 'VirtualBox'.**
In this project, you will use 'Virtual Box' as a virtual machine to boot Linux image. It is free software, so you can easily download from the website.
https://www.virtualbox.org/wiki/Downloads
You can see the web page as follows. According to your computer's operating system, click an appropriate package. It will directly download an installation program.

III. **Install 'VirtualBox'.**

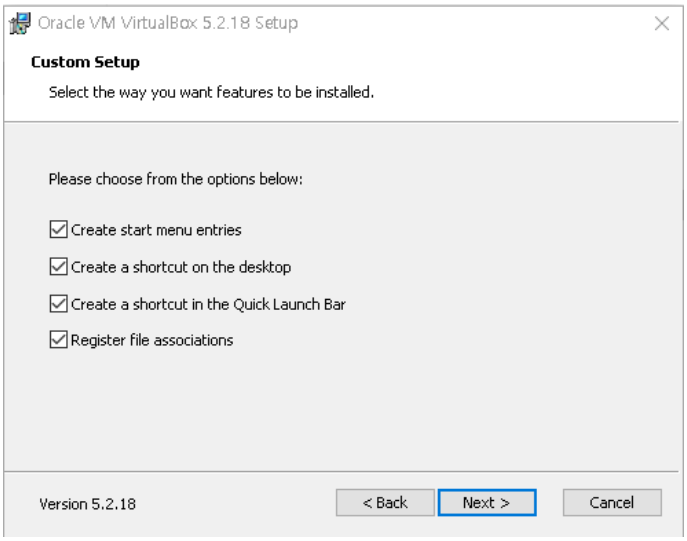
After downloading 'VirtualBox' installation program, execute it. You can see 'VirtualBox Setup Wizard' as follows. Then, click 'Next'.

*※ From now on, it explains Windows 10 operating system case. If you are using MAC OS X operating system, it can be different. If there are some problems with MAC, please contact to TAs.*

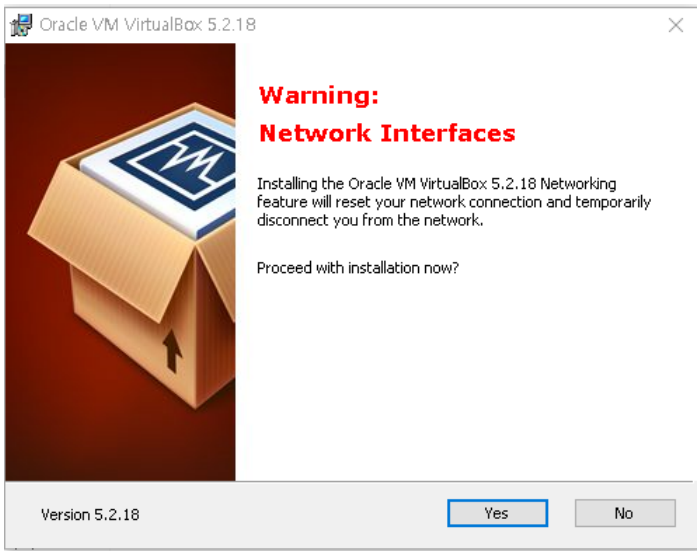

Click 'Next'. Do not change anything.



Click ‘Next’. Do not change anything.

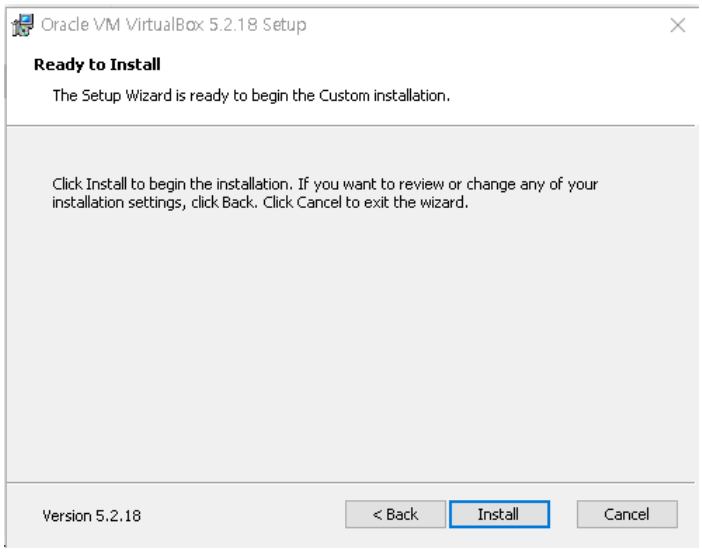



Next, it will show a warning sign. During installing ‘VirtualBox’, network can be disconnected temporarily. So, please make sure that network is disconnected now, and click ‘Yes’.



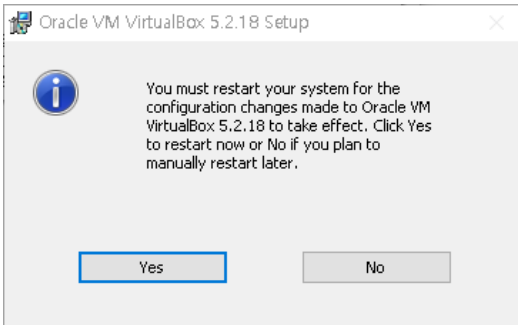

Click ‘Install’. Then the program automatically installs ‘VirtualBox’ on your computer.

*※ Before installation progress, it may ask authorization. Then, click ‘Yes’.*



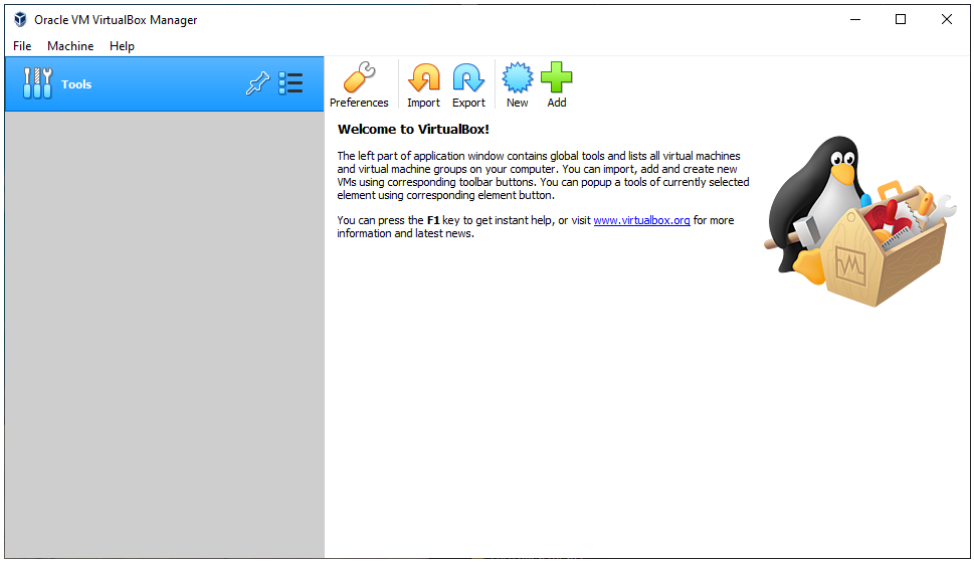

After installation, it shows a complete screen. Click ‘Finish’. Then, installation program is automatically closed and ‘VirtualBox’ will be started.


There can be a pop-up for restarting your computer. Click 'Yes' and restart your computer. It is for additional environment variable setting. Please check your computer before restarting. After restarting, execute installed 'VirtualBox' manually.

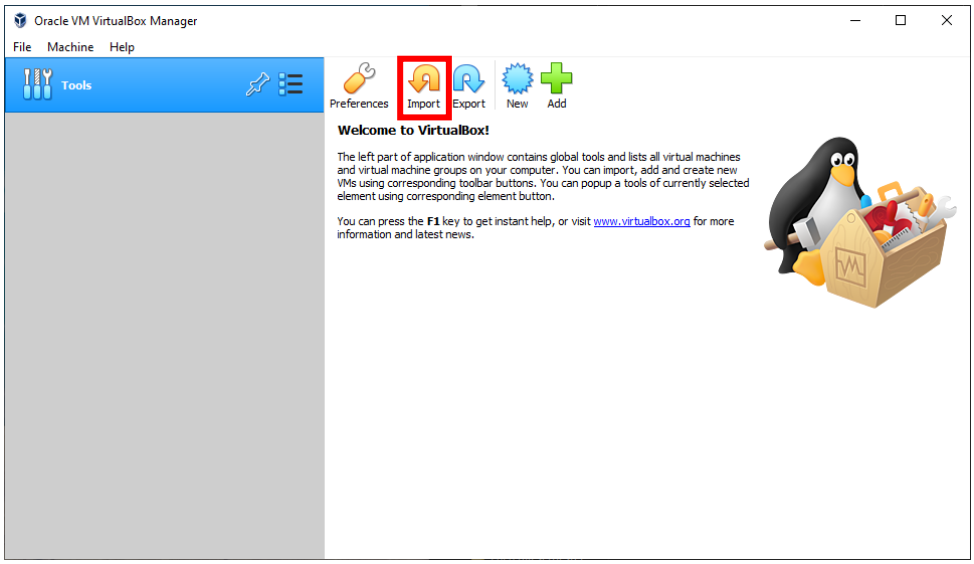


## IV. **Import Linux image on 'VirtualBox'**

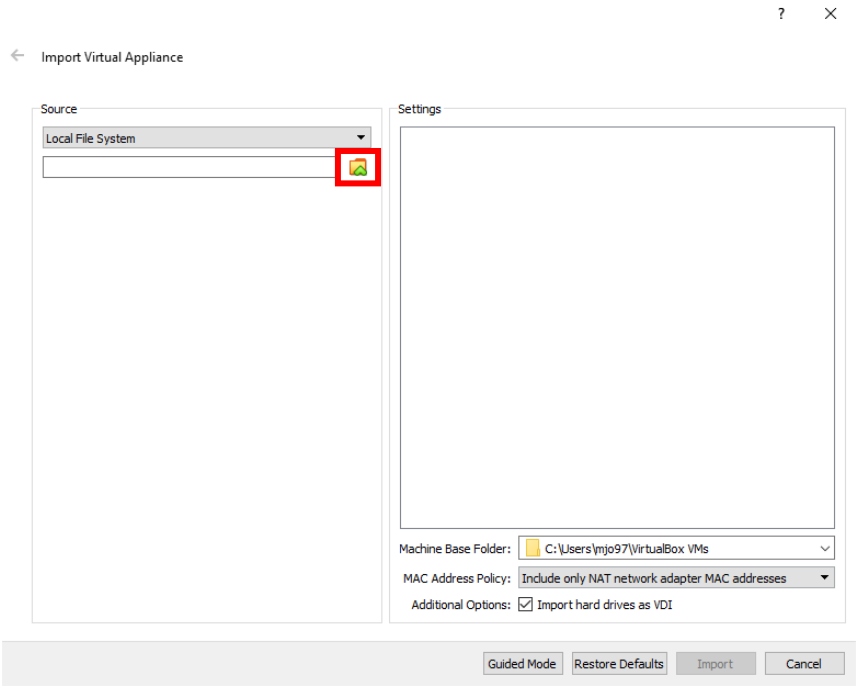
When you start 'VirtualBox', you can see 'VirtualBox' manager window.



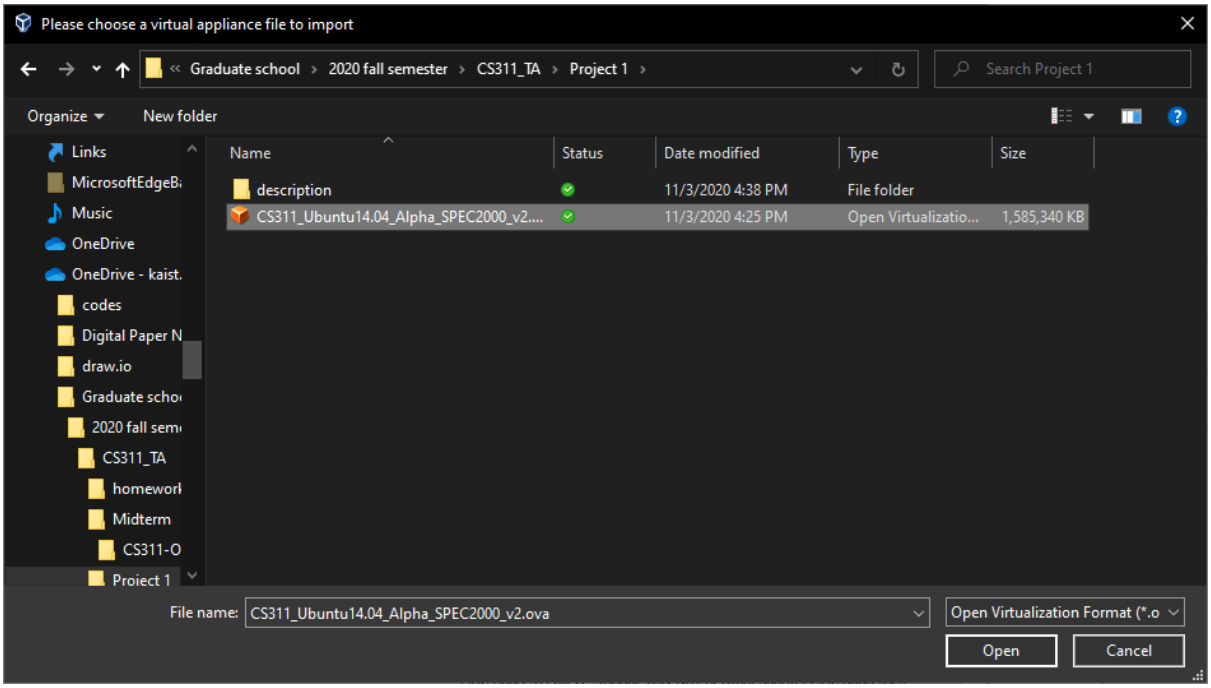

From now on, you will import Linux image on 'VirtualBox'. Click the "Import" button.



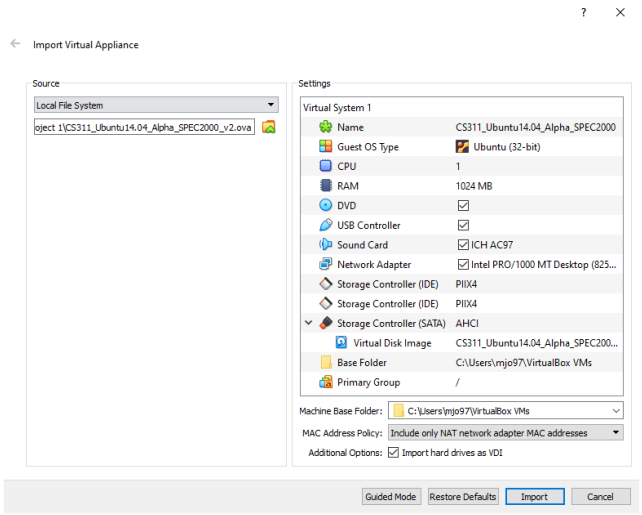
When the import window is shown, click folder-shaped icon to find Linux image.



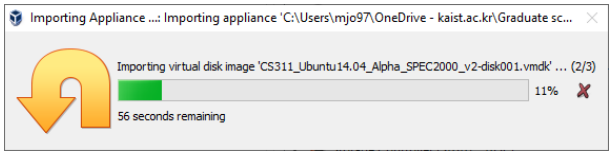

Go to the folder which you unzipped Linux image. There will be <CS311_Ubuntu14.04_Alpha_SPEC2000_v2.ova> in the folder where you downloaded it. Select it and click 'Open'.



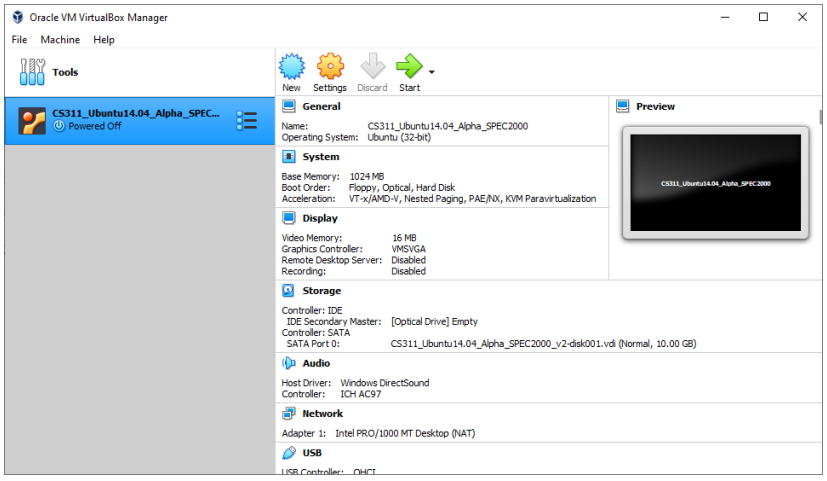
In the next step, you just need to press “Import” button.




Importing status window will be open. It takes a while so be patient until it is imported.

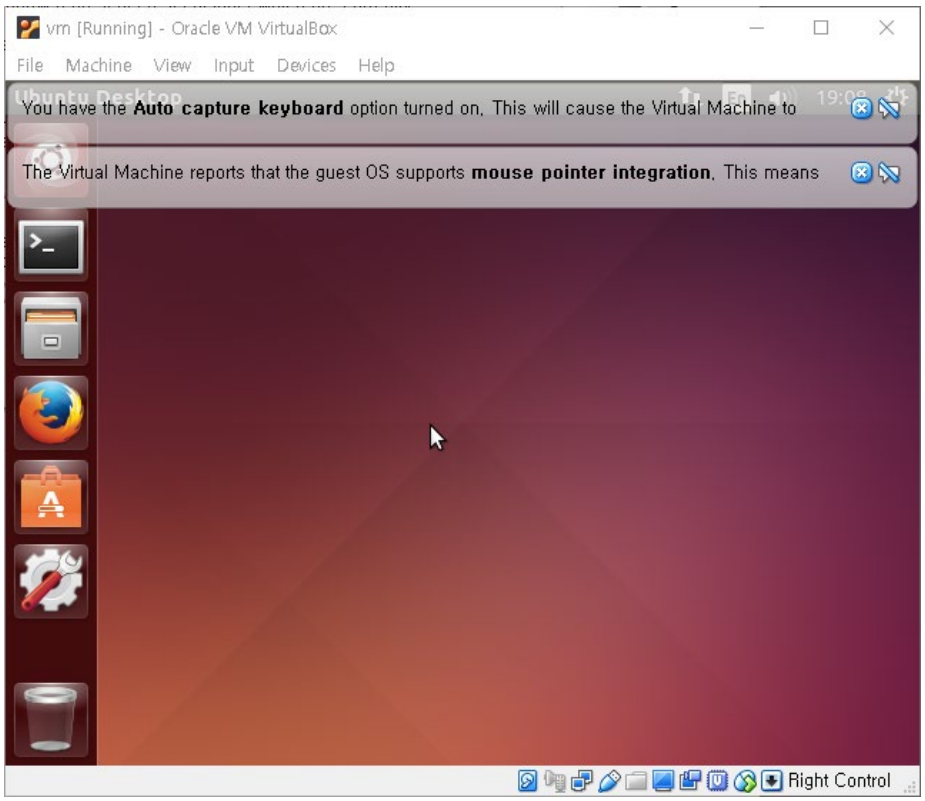



After importing, the import window is automatically closed. In ‘VirtualBox’ manager, there will be new tab named ‘CS311_Ubuntu14.04_Alpha_SPEC2000’. When you click ‘CS311_Ubuntu14.04_Alpha_SPEC2000’, ‘Start’ icon is activated as green. Click ‘Start’.



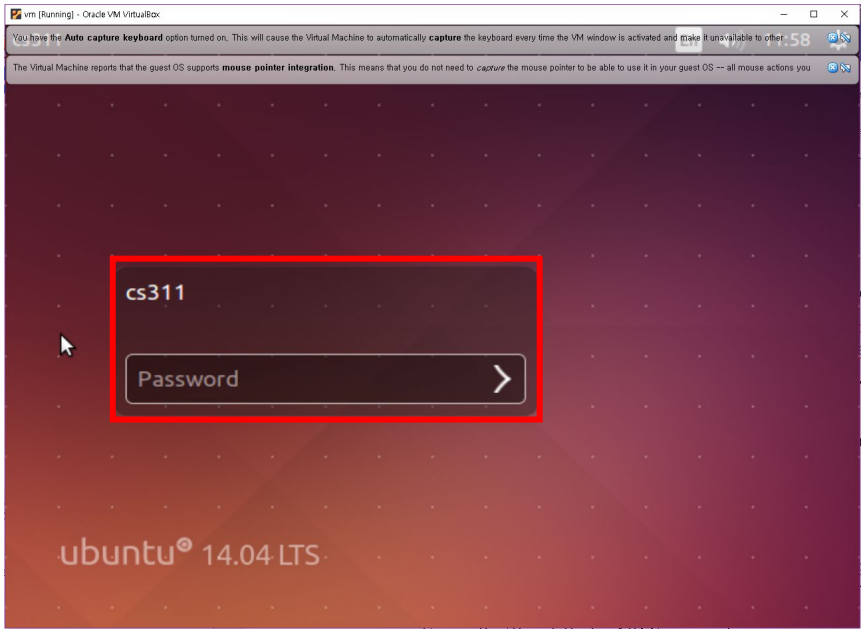
New window will be shown. It is Linux image that you want. Please wait until Linux main screen is shown as follows.

※ *Booting takes some time. Please wait patiently.*



V. **Log-in from wait mode.**

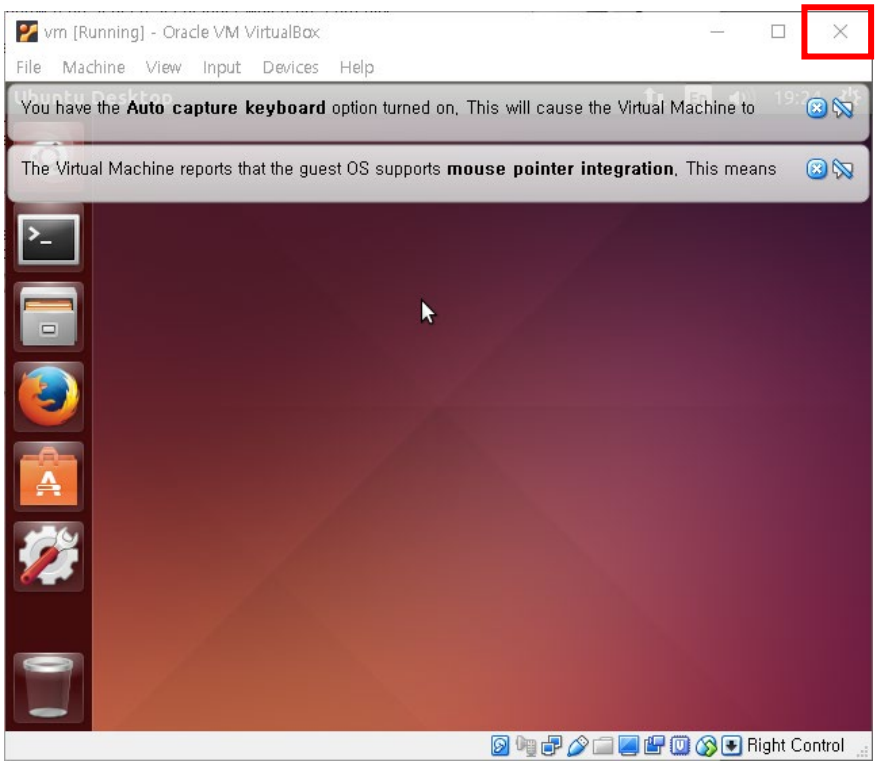
If you do not do anything for a while, the screen can be changed as wait mode. In wait mode, there are not anything but only a black screen. Do not worry about it, and move a mouse on the Linux image. Then, it will show log-in as follows.



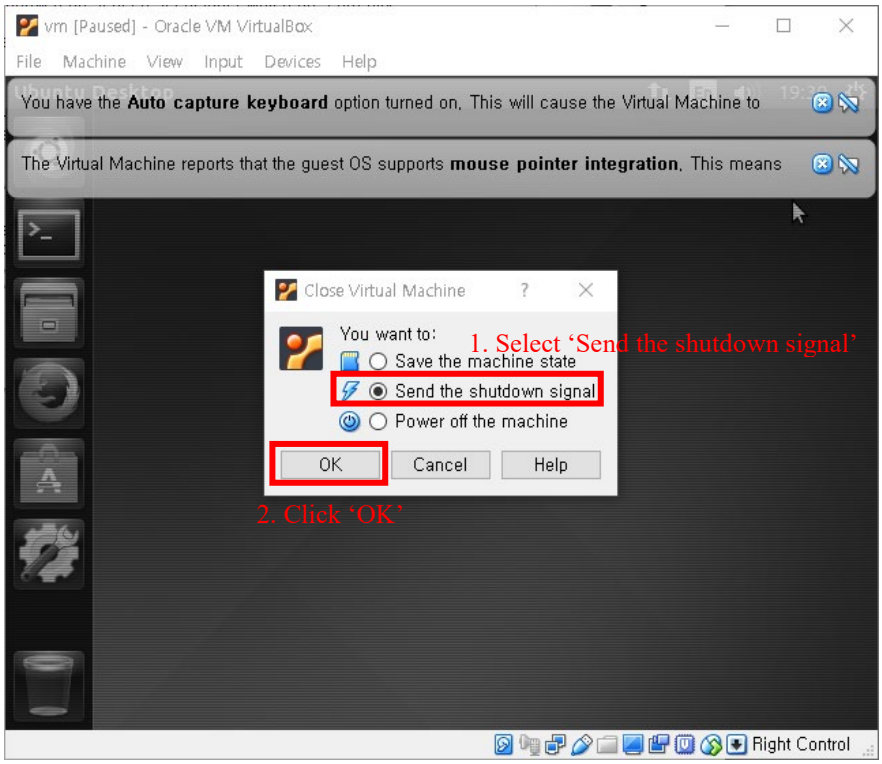

Password is <cs311> which is exactly same with the name above. Fill the password and press ‘Enter’. Then, it will come back to Linux main screen.

## VI. **Quit Linux image**

After finishing simulation, you should quit Linux image in safe. Click ‘X’ icon located in the top right corner.




Shut down window will be shown. Select ‘Send the shutdown signal’ and click ‘OK’.



The screen will be changed as follows. Click ‘Shut Down’ which is the right-most icon.