Lab Assignment 1

# Module ET4725 Operating Systems 1

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# **Assignment Objectives**

1. Install Lubuntu as a guest OS in VirtualBox.
2. Share data between Lubuntu and the host OS.
3. Get comfortable with the UI and terminal in Linux.

**Installation of VirtualBox**

The specifications of my host OS system including Desktop Environment(DE) and Window Manager(WM):

*Host: HP Laptop 15-db0xxx*

*CPU: AMD Ryzen 3 2200U with Radeon Vega Mobile Gfx (4) @ 2.500*

*GPU: AMD Radeon Vega Series*

*Memory: ~4GB*

*HDD: ~1TB*

*OS: Ubuntu 18.04.1 LTS x86\_64*

*Kernel: 4.15.0-43-generic*

*Shell: bash 4.4.19*

*DE: GNOME 3.28.3*

*WM: GNOME shell*

Now that we have the specifications of the system we will be using, lets go to the [VirtualBox](http://virtualbox.org/wiki/Linux_Downloads) website and download a verions that is specific to our OS.

The latest version for Linux OS’s is VirtualBox 6.0.2, I chose the Ubuntu 18.04 / 18.10 / Debian 10 link which downloads a .deb package. When package finished installing I used the *sha256sum* *packagename.deb* command on the package to make sure the checksums matched, Then I went ahead and installed the package using *sudo dpkg -i packagename.deb*. (depenencys)

**Installation of Linux as a guest OS**

The next step of was to install a Linux OS as a guest OS on VirutalBox, for this task I chose Lubuntu. I visited the [Lubuntu website](http://lubuntu.net/downloads/) and downloaded Lubuntu 16.04.3 LTS Desktop 64-bit version.

I then setup a profile on VirtualBox that would run the lubuntu.iso file that was downloaded. Here is my initial setup:

Name: lubuntu18.04.1LTS

Type: Linux

Version: Ubuntu (64-bit)

Base Memory: 1024 MB

Storage: VDI - Normal, 10.00GB (8.00GB primary mounted at /, 2.00GB swap)

Acceleration: Virtualization switched on (VTx/AMD-V, Nested Paging)

Since Lubuntu is such a lightweight OS I opted to give it only 1GB of memory, I will explain my decision here in the conclusion. (No boot)

**Setting up Lubuntu**

With the installation phase of Lubuntu, everything worked as expected, with no issues. The first steps I took after installation was to update the system using the LXTerminal, I used the command *sudo apt update && sudo apt upgrade -yy*. When the system updated successfully, I wanted to setup a shared folder between the host and geust OS’s at this point I found out I need to install the guess add-ons to mount the share folder. (activating the root account to run the GA scripts)

**Using Lubuntu**

While I have very briefly used Lubuntu in the past, back when I was distro-hopping from one Linux OS to another. I really enjoy the LXDE desktop environment for the responsivness and simple for effective disign. Even when I gave Lubuntu 1GB of memory to work with, it still has no trouble because of it’s lightweight, using only 200MB whille idle and while under load it was topping out at ~400-550MB. Lubuntu feels very similar to it’s parent Ubuntu in terms of package management at least. I have used most applications that Lubuntu offers, including Htop, Vim, Gdebi etc. I have also gotten firmiliar with some other applications as part of this assignement. Most notably System profiler benchmark which has me interested in trying it out on my host machine. (sf\_VirtualShare error)

**Using terminal commands**

Since I use Linux on a regular basis, I feel fairly confident within a terminal setting. I am by no means an expert but I would know the more commonly used commands. An example of these commands would be:

* Using apt for managing packages – apt update, apt upgrade, apt install pakagename
* Using the ls command to list

**Shutting down Lubuntu**

**Plan for remaining assignments**

**Concluding comments**