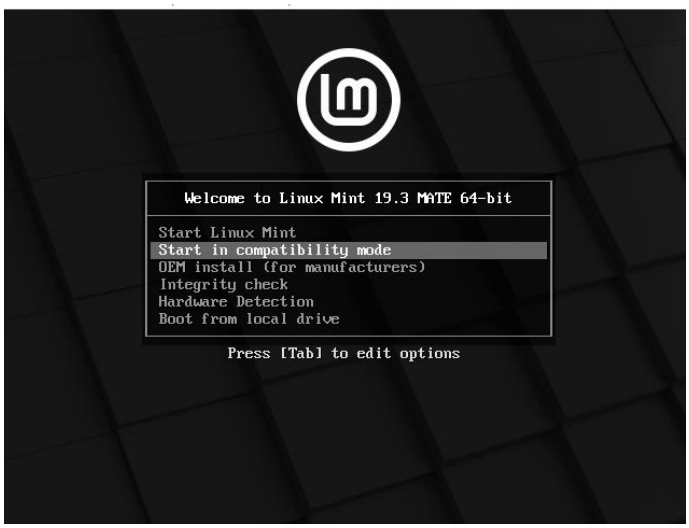
INSTALLING VMWare and GetThermal App.

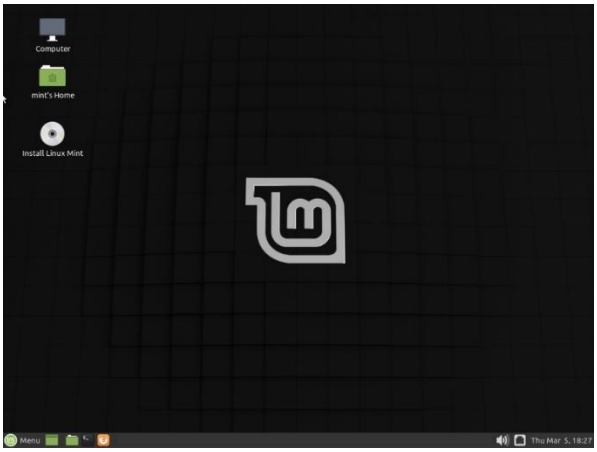
Installing VM:

1) If not done already download and install a virtualizer, use VMWare for these instructions: (https://www.vmware.com/go/getplayer-win) **NOTE:** VirtualBox usb connections are buggy it is recommended you use VMWare
2) Download the OS to be run; we want to use Linux Mint: https://linuxmint.com/download.php (Mate 64-bit edition: http://mirror.csclub.uwaterloo.ca/linuxmint/stable/19.3/linuxmint-19.3-mate-64bit.iso).

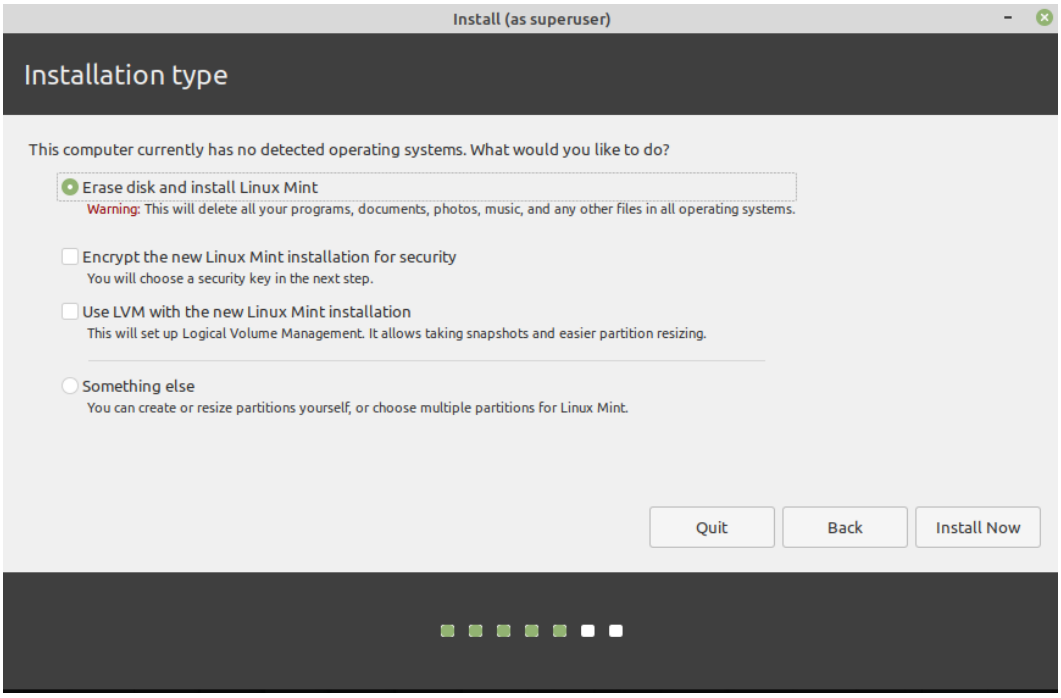
3) Once VMWare is installed and OS image file is downloaded, its time to setup the VM.
   Go to Create a New Virtual Machine. A window will appear saying New Virtual Machine Wizard > Click on the Installer Disk Image File (.iso) option and browse for the downloaded Operating system > Set the Guest OS as Linux; Ubuntu-64 bit > Rename to the desired name and set to the desired location > Set the maximum size to 50-100 GB.
   A new window will apprear and the option of Customize Hardware is available press that > Set the memory to 2048 to 4096 (2GB to 4GB), Set Processors to 2, Tick all the Virtualization Engines, in the USB controller tab set Compatibility to 2.0 and tick, show all USB input devices. > click Close > click Finish.
4) Right click on the newly made VM and press Power On It will open to a welcome interface where it asks you to choose options, using the arrow keys select “Start Linux Mint” and press enter to select or let the timer run down > It should startup to the Linux Mint desktop.



5) The desktop should open to this, the next step is to install Linux Mint (these steps are all different for different OS) > we install Linux Mint by pressing the Install Linux Mint CD on the desktop, it will open a folder, Transfer that folder to the home folder, and there should be an .zip or .tar file, extract the contents and run the Install.



Choose English > Keyboard layout: English(US), English > tick the Install third-party software > pick the Erase disk option (this will not erase your PC disk only the virtual disk), press Install Now, Continue > Set the area to Toronto/ where ever you are.

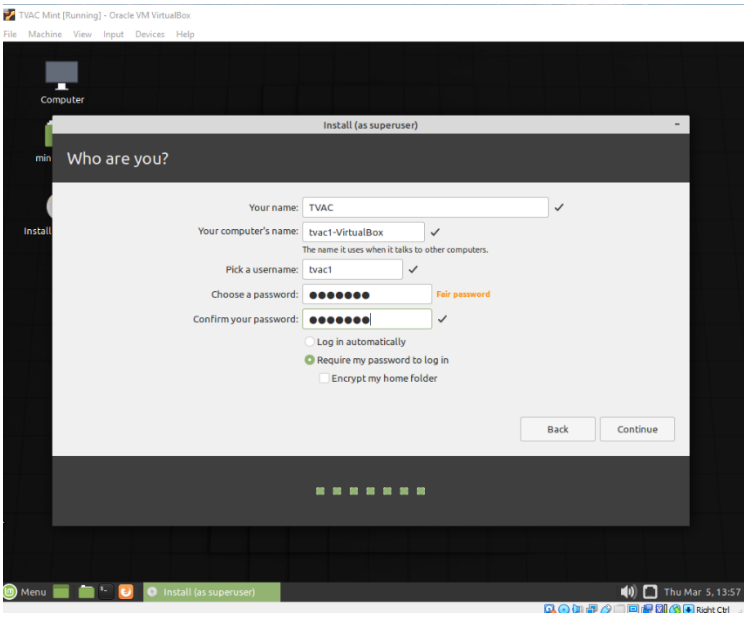


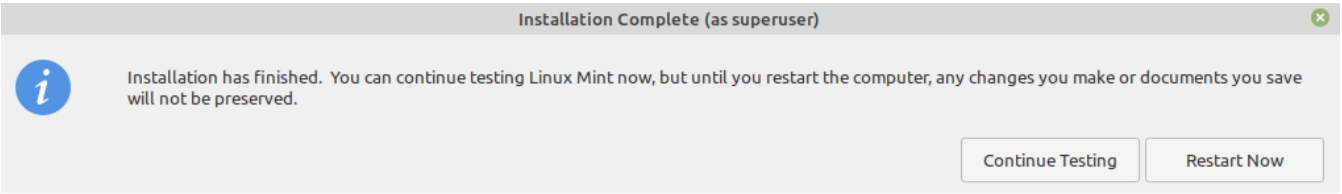
Set your Name, password, username etc.

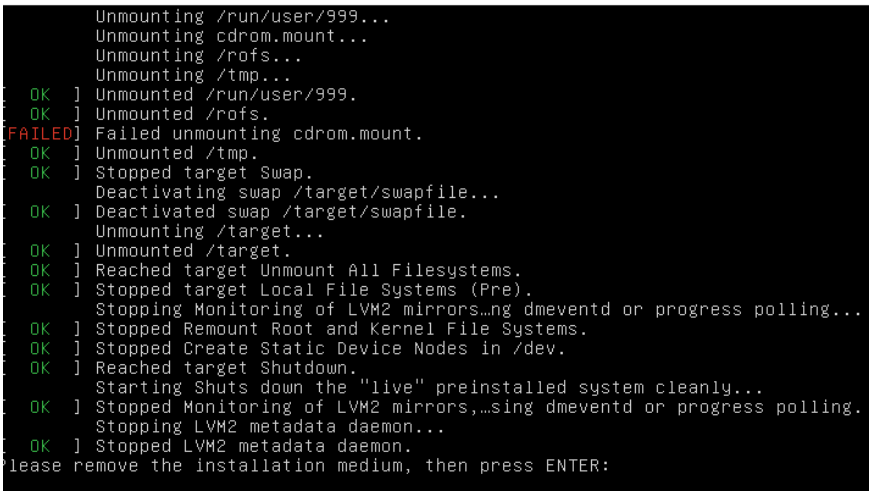
When you press continue it should start installing Linux Mint. Let it run.

When the installation is finish, it will prompty a restart, Press Restart Now

If the following prompt is shown, just Press Enter.







6) It will restart and it will go to a login page, put your set password. The VM is now installed

Installing GetThermal

(mostly following https://github.com/groupgets/GetThermal/wiki/Building-for-Raspberry-Pi):

1) All commands need to be executed as root, so open a terminal and run su to execute all commands as root:

```
sudo su root
```

   You will be asked to input a password. Input your password

2) Fully upgrade the system, input the lines one by one:

```
apt-get update
apt-get upgrade
apt-get dist-upgrade
apt-get install build-essential
```

3) Open a terminal and install the following packages, required for building GetThermal:

```
sudo apt-get install qt5-default qtmultimedia5-dev qtdeclarative5-dev \
    qml-module-qtquick-controls2 qml-module-qtmultimedia \
    qml-module-qtquick-layouts qml-module-qtquick-window2 \
    qml-module-qtquick-templates2 qml-module-qtgraphicaleffects \
    libusb-1.0-0-dev cmake git
```

4) Clone and build GetThermal

   Clone:

```
git clone https://github.com/groupgets/GetThermal.git
cd GetThermal
git submodule update --init
```

   Build libuvc

```
cd libuvc
mkdir build
cd build
cmake ..
make
cd ../..
```

   Build getthermal

```
mkdir build
cd build
qmake ..
make
```

5) Should be build and found in the /release/GetThermal folder.

   From the last bit of the terminal type:

   cd release/

   ./GetThermal

   To run in terminal

6) Run in either the terminal or as administrator.

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References:

[1] https://github.com/groupgets/GetThermal/wiki/Building-for-Raspberry-Pi

[2] https://github.com/groupgets/GetThermal

[3] https://unix.stackexchange.com/questions/140350/linux-g-command-not-found

[4] https://github.com/groupgets/GetThermal/issues/8