Project 1: Environment Setup

In this exercise, you will be working in an Ubuntu 16.04 virtual appliance, which is provided with the download.

1. Download the **Ethereum.ova** file linked on Coursera.

   Follow the steps accordingly for **Windows** vs. **Mac**

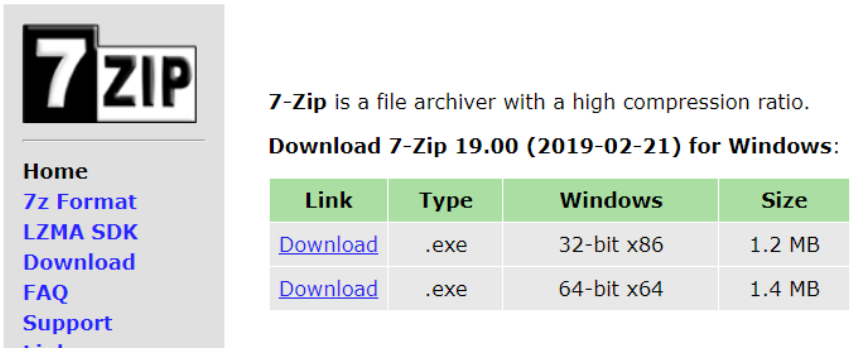
Windows:

The file will look something like this:

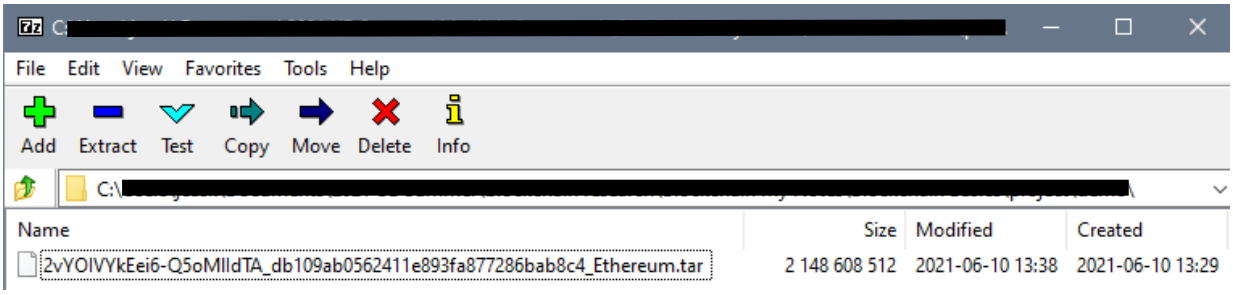
2vYOIVYkEei6-Q5oMlldTA_db109ab0562411e893fa877286bab8c4_Ethereum.tar

This is a **.tar** file, a compressed filetype similar to a Windows .zip file. Like a ZIP file, the contents need to be extracted before being used.

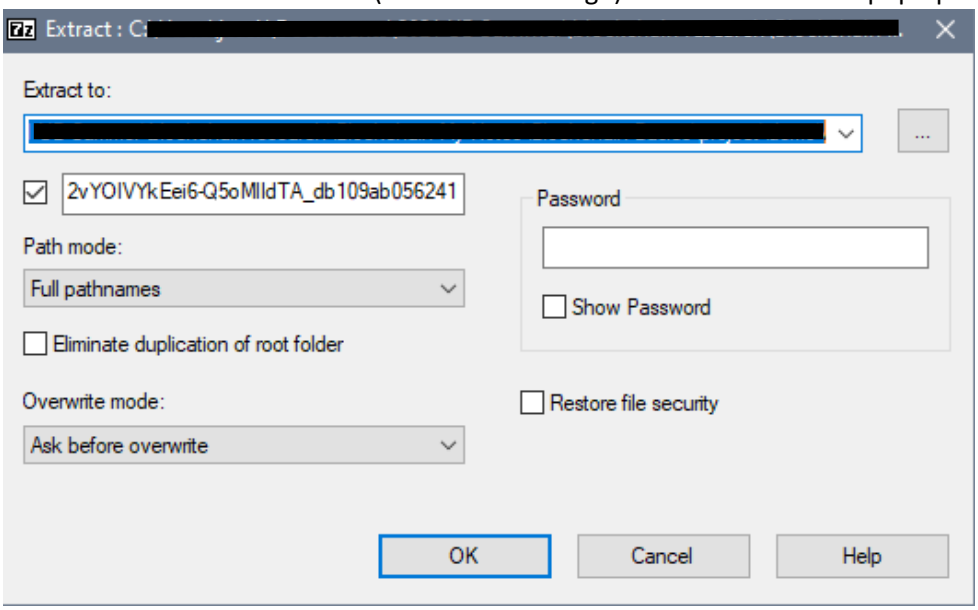
1. Download a free program called 7-Zip. There are two versions, one for 32-bit processors and one for 64-bit processors. Select the Download link corresponding to your processor. (If you don't know which your processor is (for Windows 10 users), open Settings -> System -> About).



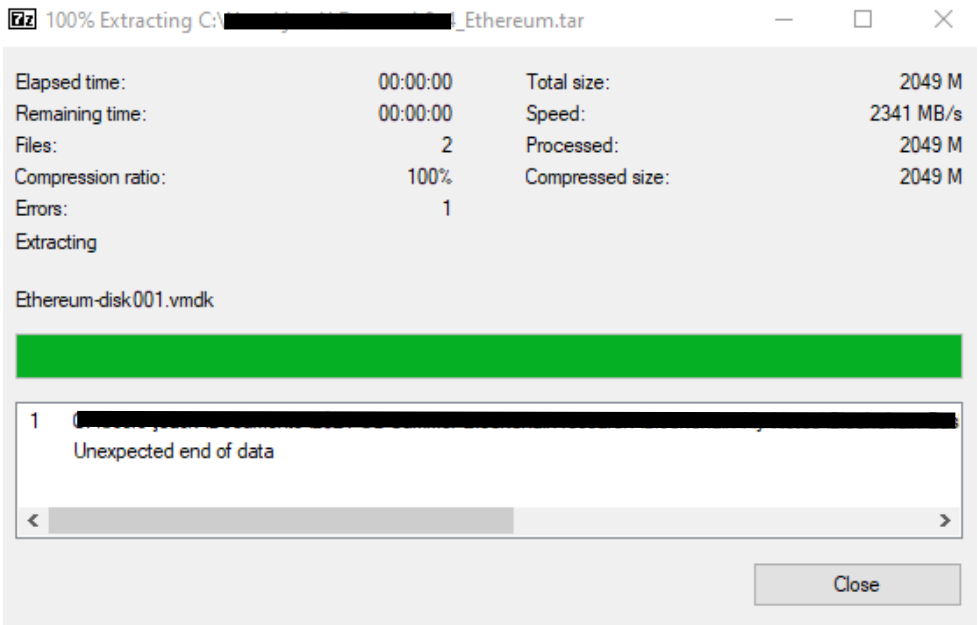
2. Open 7-zip and navigate to where the .tar file is stored.



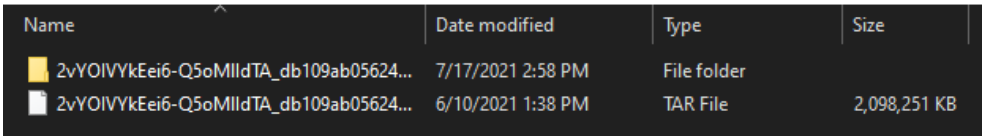
3. Select the file and click **Extract** (the blue minus sign). A new window will pop up:



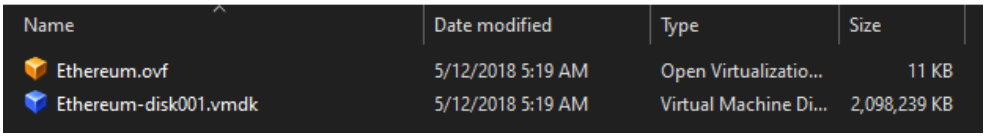
4. Click **OK**.
5. When the green bar is full, click **Close**.



6. There should now be a folder next to the .tar file of the same name.



7. Enter it, and you should see two files.



8. For the later steps of this project while importing to VirtualBox, you'll select the **Ethereum.ovf** file.

Mac:

1. The **Ethereum.ova** file should be downloaded and stored in an OVA format. This is what you will use for importing to VirtualBox.

Importing the Virtual Machine

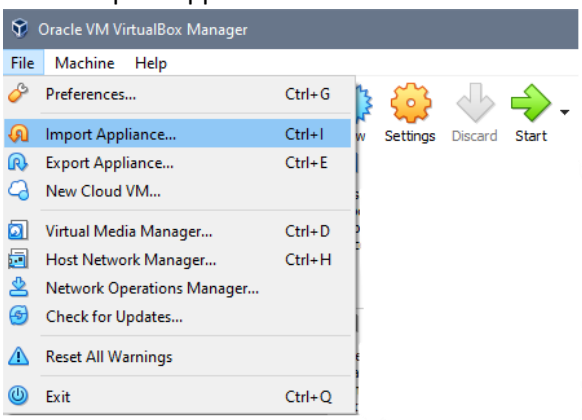
Now that the .tar file is extracted, we'll move on to installing VirtualBox. This **.ovf/.ova** file contains the guest Ubuntu (Linux) operating system with all the installations necessary to run a full Ethereum Node (along with the .vmdk file).

VirtualBox will create a Virtual Machine instance, separate from your computer, to run the Node.

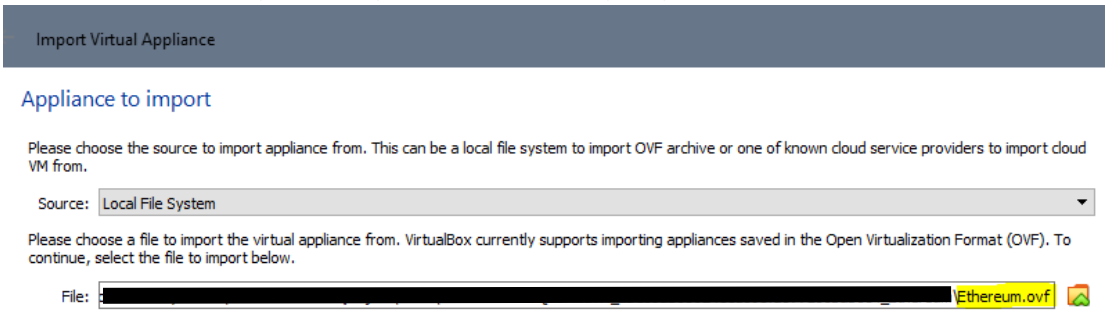
1. Download VirtualBox from this link: https://www.virtualbox.org/wiki/Downloads
    a. ***Windows users*** *– Open the download file as an Administrator to install, otherwise the virtual machine may not connect to the Internet.*

Next, you will need to install **Ethereum.ovf** (Windows) or **Ethereum.ova** (Mac) into VirtualBox.

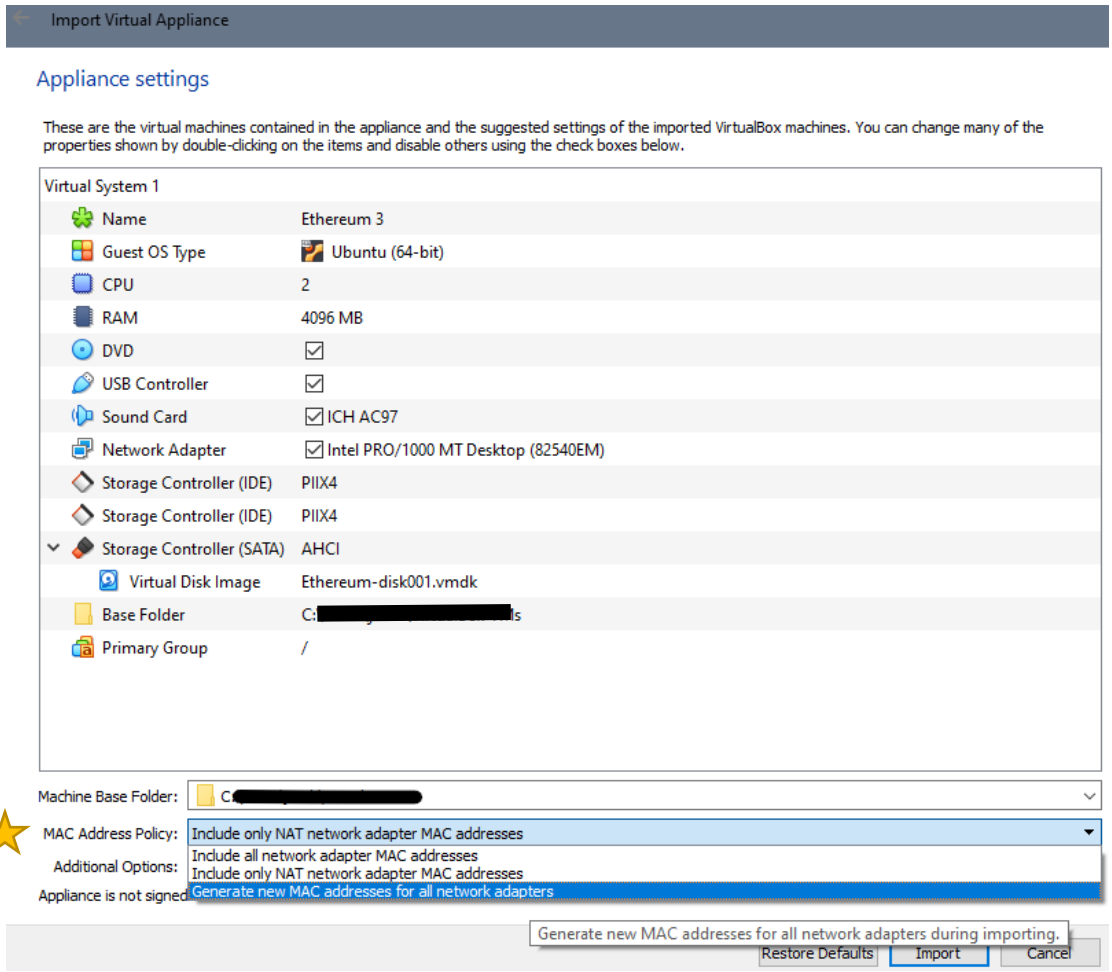
2. Open VirtualBox
3. File -> Import Appliance



4. Select **Ethereum.ovf** (Windows) or **Ethereum.ova** (Mac) and click **Next**.

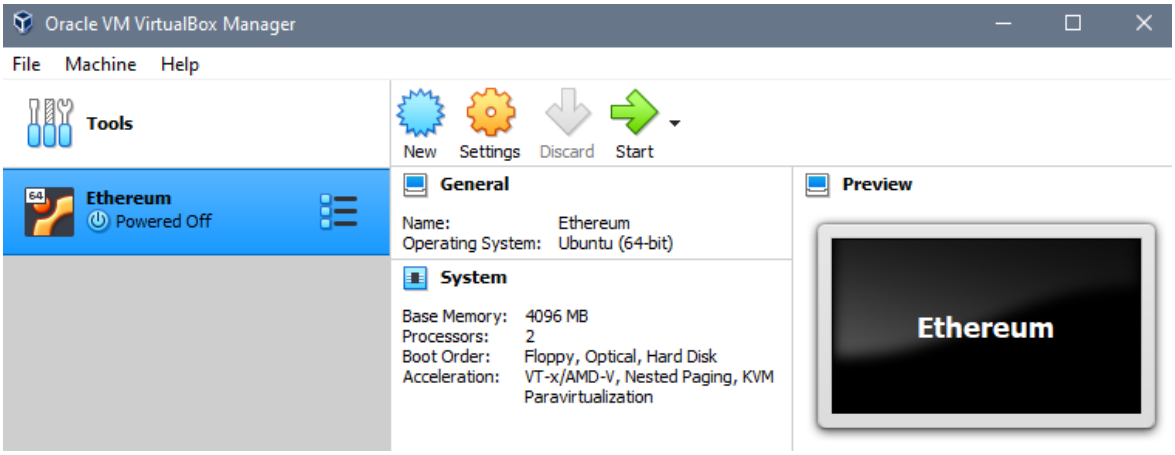


5. Change the **MAC Address Policy** to "Generate new MAC addresses for all network adapters"



6. Click Import.

This imports the Ethereum Ubuntu appliance into VirtualBox.

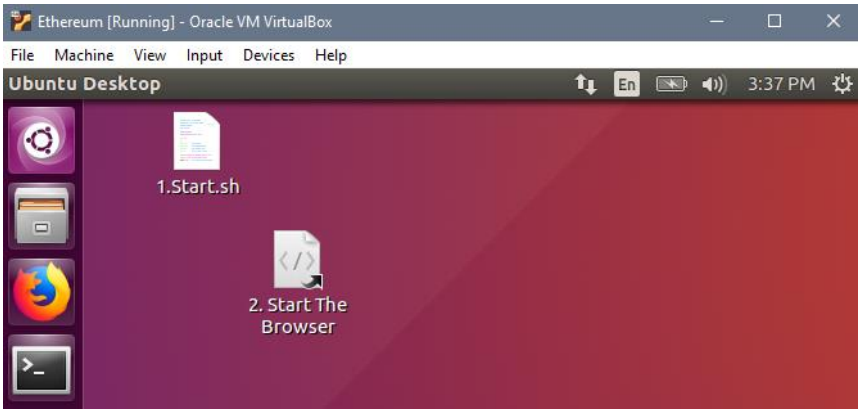


Running the Virtual Machine

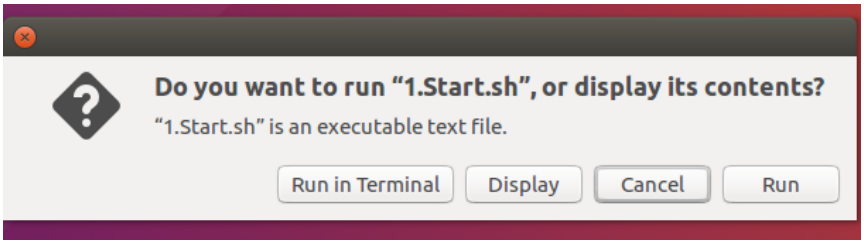
1. Select the VM you've imported and click the green **Start** arrow.
2. Password: **ubuntu**

Starting the Project

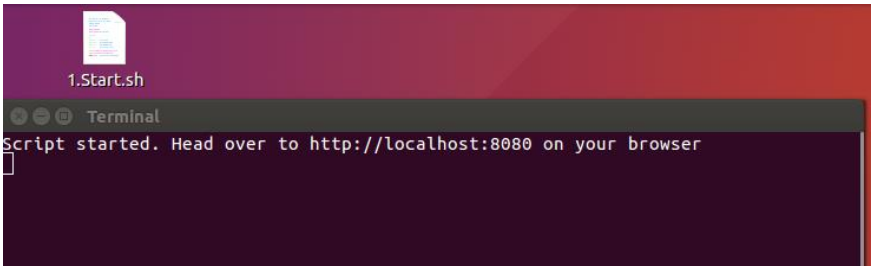
1. Once the VM is running, double click the file named "1.Start.sh"



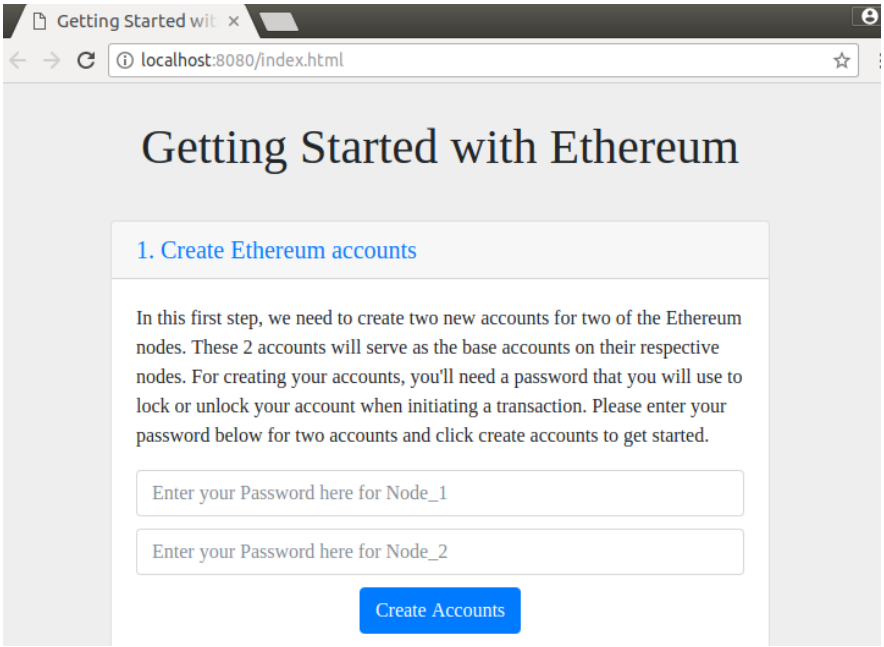
2. Select **Run in Terminal**



Note: This will start the terminal in a few seconds. **Do not** close the terminal until the end of the exercise.



3. Minimize the terminal. (Do not close it)
4. Double click the shortcut file named “2. Start the Browser”



You are now ready to proceed with the project!