

## Lab1 Build Testing Environment

Due by midnight August 24, 2021  
(20 points)

### Lab Learning Objectives

- To configure and install software on student's device for future class use
- To build virtual machine using VMware workstation
- To be familiar with Linux

### Lab Instructions

#### 1. Download and install VMWare Workstation Pro 15

<https://e5.onthehub.com/WebStore/ProductsByMajorVersionList.aspx?ws=ac2dd5-d02e-de11-a497-0030485a8df0&vsro=8&JSEnabled=1>

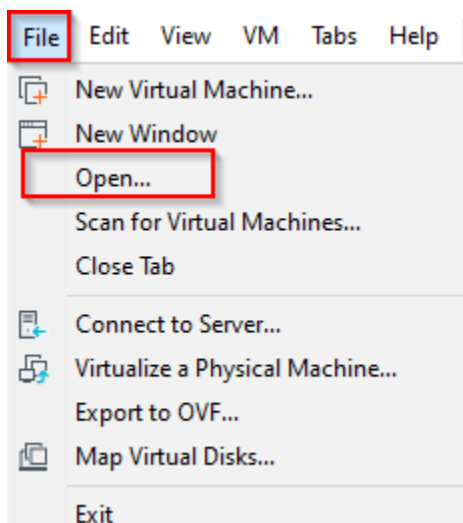
If you are using MacOS, please download and Install VMware Fusion 11 instead.

#### 2. Download and Install Greenshot

<https://getgreenshot.org/>

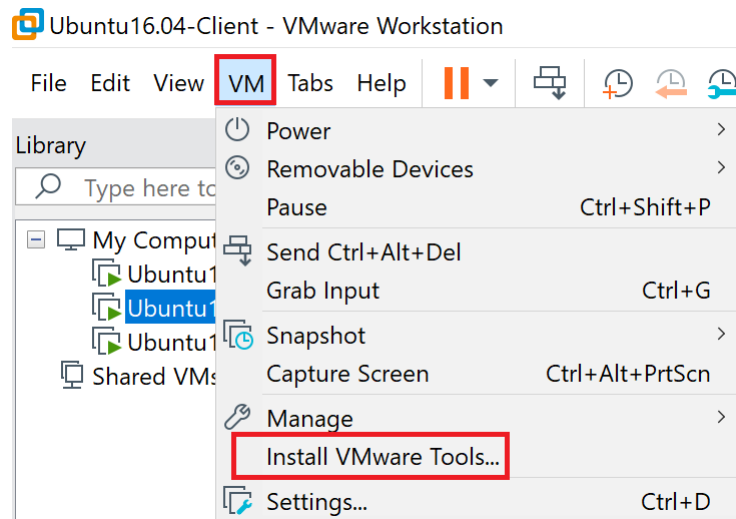
#### 3. Download and Install Ubuntu20.04 VM (64 bit)

Visit [https://drive.google.com/drive/folders/1hXMokPwUjn\\_huQlnpmiubgr9kZX524IV](https://drive.google.com/drive/folders/1hXMokPwUjn_huQlnpmiubgr9kZX524IV) to download the Seed Ubuntu 20.04.ova file. Unzip the file afterwards. Open VMware station, select **File → Open**, browse to the .ova file and click Open. Type a name for the virtual machine, type or browse to the directory for the virtual machine files, and click Import.

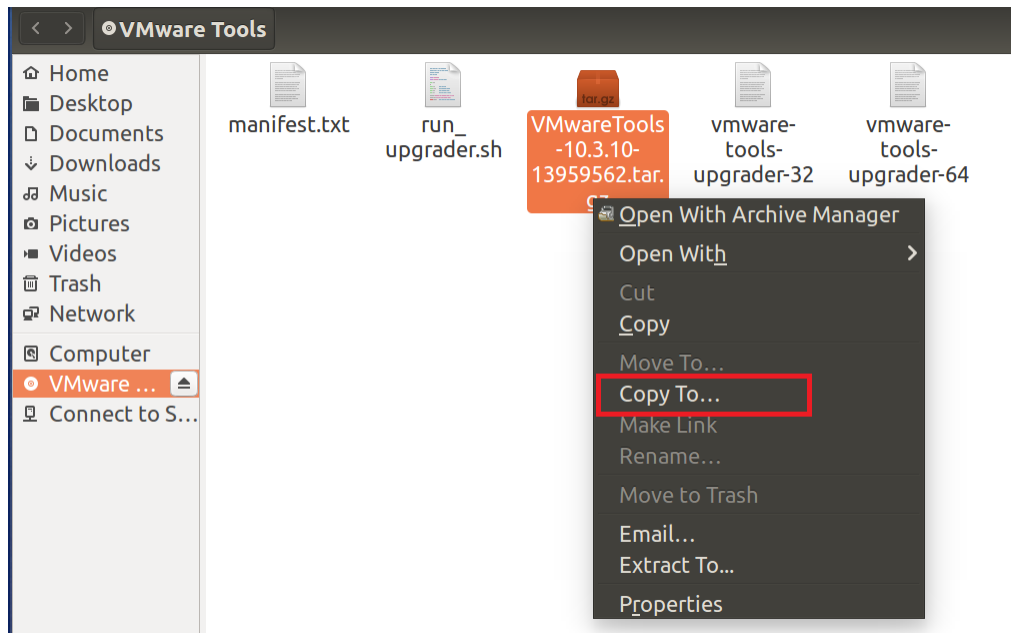


#### 4. Install VMware Tools

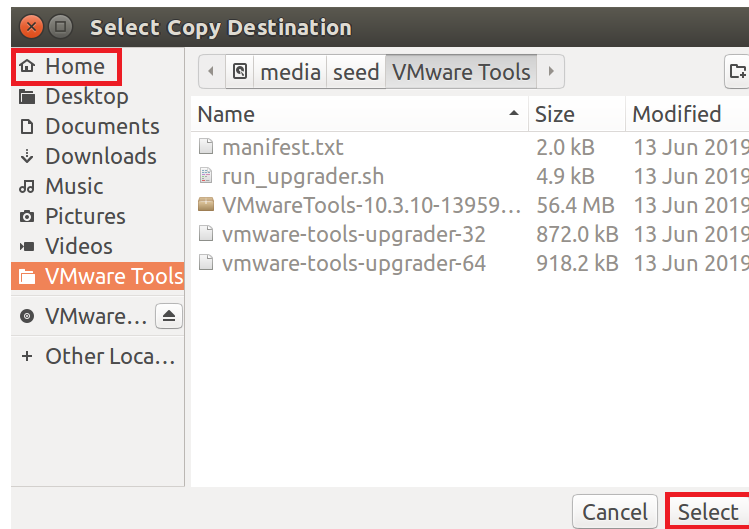
Select the VM in the left panel, then click **VM** at the top of the VMWare Station, then select **Install VMware Tools...**



In the next window, right click on the tar.gz file and select **Copy To...**



In the next window, select **Home** and then click the **Select** button.



Open a terminal and type the following command to unzip the installation file.

**\$ tar xzpf VMwareTools-x.x.x-yyyy.tar.gz**

The value x.x.x is the product version number, and yyyy is the build number of the product release. After that issue the following commands to install the tools.

**\$ cd vmware-tools-distrib**

**\$ sudo ./vmware-install.pl**

```
/bin/bash
/bin/bash 80x24
[04/27/20]seed@VM:~$ tar xzpf VMwareTools-10.3.10-13959562.tar.gz
[04/27/20]seed@VM:~$ cd vmware-tools-distrib/
[04/27/20]seed@VM:~/vmware-tools-distrib$ sudo ./vmware-install.pl
```

Type Y for the first question to allow the installation. For the remaining question, keep pressing enter to accept all default settings when install the VMware tools.

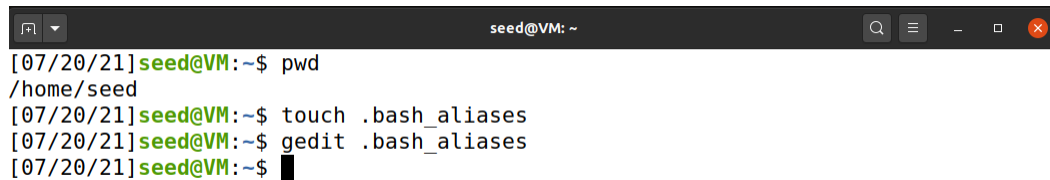
## 5. Terminal Window Customization

In future labs, you will have to open multiple terminals to simulate different hosts and run different tasks. To differentiate multiple terminal windows, we will customize each of the terminal title. Bring up a terminal and type **pwd** to make sure that you are currently within the **/home/seed** folder. After that, issue the following command to create **.bash\_aliases** file.

**\$ touch .bash\_aliases**

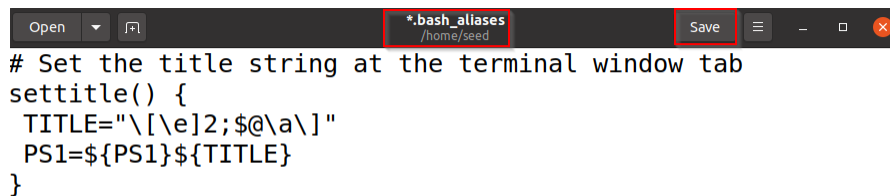
Then use gedit to open the file you just created.

**\$ gedit .bash\_aliases**



```
[07/20/21] seed@VM: ~$ pwd
/home/seed
[07/20/21] seed@VM: ~$ touch .bash_aliases
[07/20/21] seed@VM: ~$ gedit .bash_aliases
[07/20/21] seed@VM: ~$
```

Copy and paste the following code to the **.bash\_aliases** file.



```
Open  *bash_aliases /home/seed Save
# Set the title string at the terminal window tab
settitle() {
    TITLE="\[\e]2;${@}\a\"
    PS1=${PS1}${TITLE}
}
```


Click the Save button to save the file and then close the gedit. Run the following Shell commands in the terminal.

**\$ source ~/.bashrc**

Now you can change your current terminal's title to whatever the title you prefer by typing

**\$ settitle mytitle**

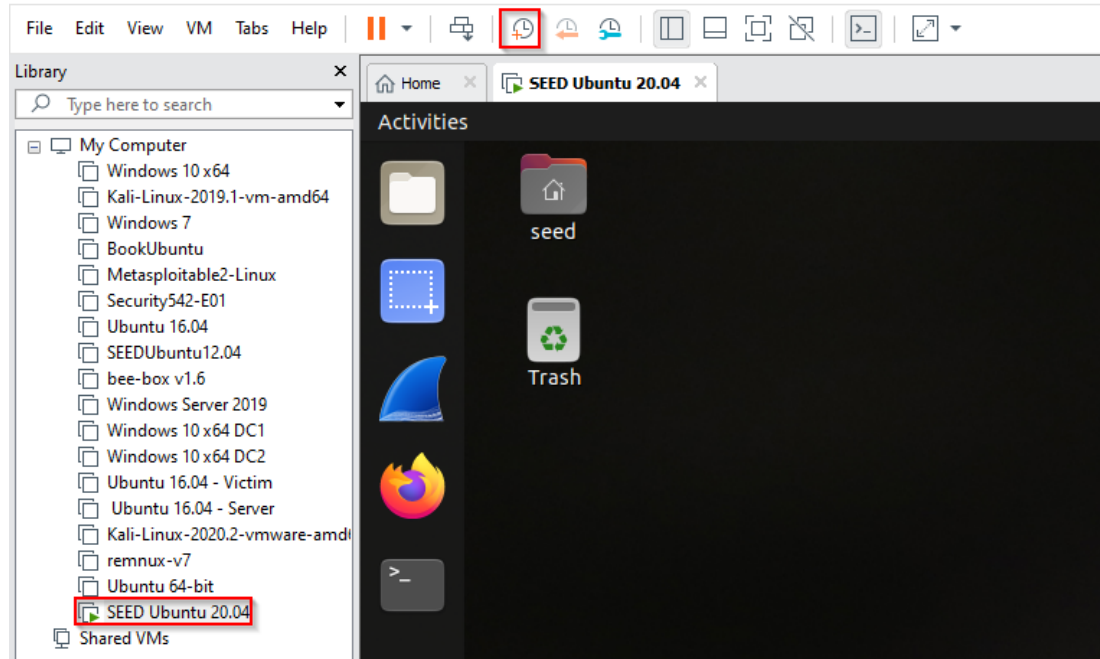
Notice that your current terminal window title should be changed from seed@VM: ~ to the one you specified in the above command.



```
Attacker
[07/20/21] seed@VM: ~$ pwd
/home/seed
[07/20/21] seed@VM: ~$ touch .bash_aliases
[07/20/21] seed@VM: ~$ gedit .bash_aliases
[07/20/21] seed@VM: ~$
[07/20/21] seed@VM: ~$
[07/20/21] seed@VM: ~$
[07/20/21] seed@VM: ~$ source ~/.bashrc
[07/20/21] seed@VM: ~$ settitle Attacker
[07/20/21] seed@VM: ~$
```

## 6. Take a Snapshot of VM

Sometime you need to execute some dangerous commands which may corrupt your virtual machine. It is highly recommended that you take a snapshot of your VM before performing those dangerous operations. First select your VM from the left panel of your VMWare workstation. Then click the take a snapshot of this virtual machine button (highlighted in the red square of the following picture).

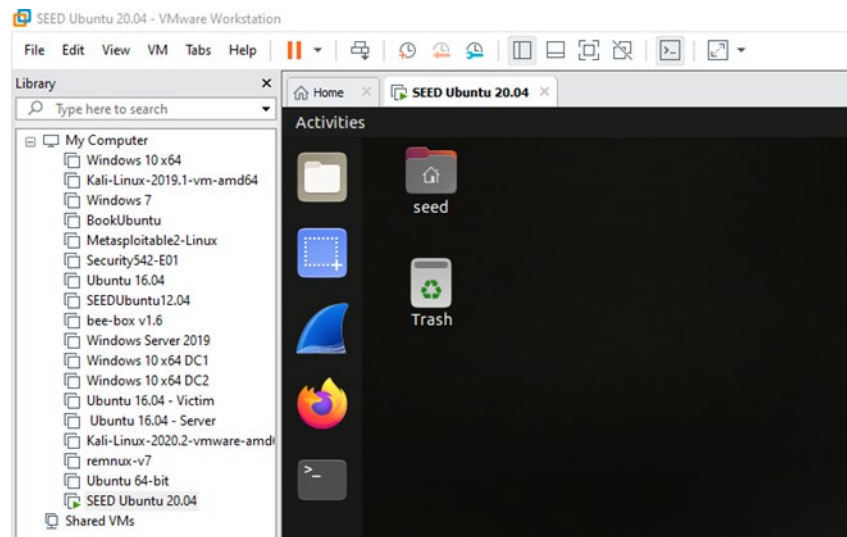


## Lab Report

- please include your name and 700# at the beginning of your report
- please upload your report to the Blackboard by the due date
- only word or pdf format is acceptable

In this report, you need to provide 2 screenshots.

1. A screenshot showing Ubuntu20.04 VM loaded in your virtualization product. See sample screenshot below.



2. A screenshot showing a terminal window title has been changed to your family name.