

INSTALLATION INSTRUCTIONS FOR THE CLUDERA QUICKSTART VIRTUAL MACHINE

This guidance document presents how to establish the Cloudera QuickStart Virtual Machine (VM) in Oracle VirtualBox on a Microsoft Windows 10 host system. The guidance is divided into two parts. The first part goes over the Oracle VirtualBox installation. The second part covers the installation of the Oracle VirtualBox Extension Pack. The final part covers the import of the Cloudera QuickStart VM into Oracle VirtualBox. If you already have the software installed, you are strongly encouraged to still follow the steps in this document to upgrade the software to the latest version.

Part 1 – Oracle VirtualBox Installation

- [1] Locate the latest version of Oracle VirtualBox for your computer's operating system from the following site:

<https://www.virtualbox.org/wiki/Downloads>



The screenshot shows the VirtualBox website's download page. The browser address bar displays 'virtualbox.org/wiki/Downloads'. The page features the VirtualBox logo and the heading 'Download VirtualBox'. Below this, there is a section for 'VirtualBox binaries' with a warning about license terms and links to 'VirtualBox 6.0 builds' and 'VirtualBox 5.2 builds'. A section titled 'VirtualBox 6.1.4 platform packages' lists four options: 'Windows hosts', 'OS X hosts', 'Linux distributions', and 'Solaris hosts'. A large red arrow points from the text 'INSTALLATION OPTIONS' to the 'Windows hosts' link.

virtualbox.org/wiki/Downloads

Apps Community Sites Financial Sites Government Sites Mail Sites News Sites Services

VirtualBox
Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#).

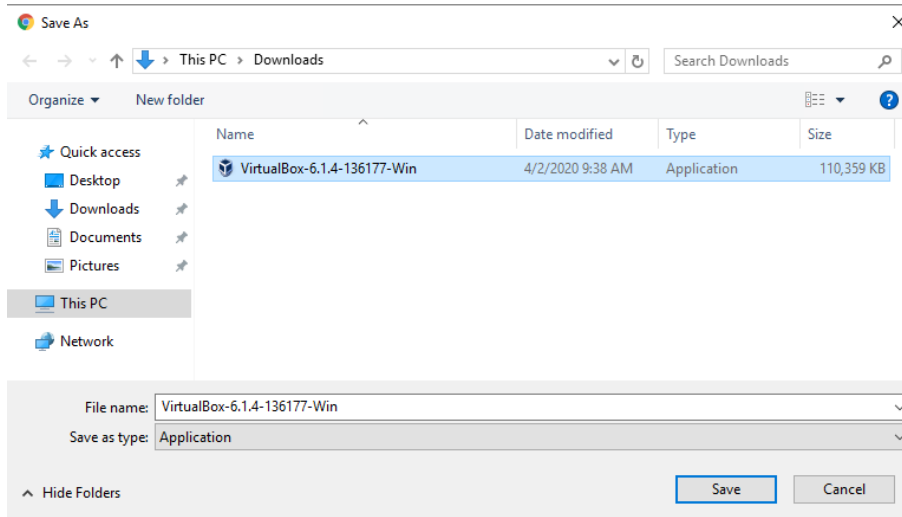
If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#).

VirtualBox 6.1.4 platform packages

- [Windows hosts](#)
- [OS X hosts](#)
- [Linux distributions](#)
- [Solaris hosts](#)

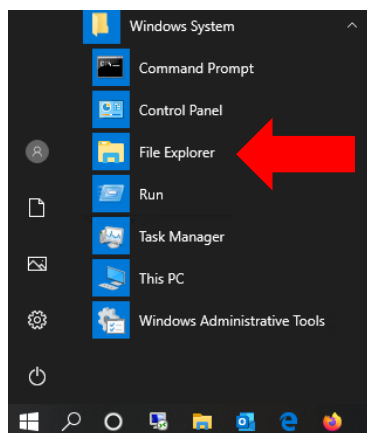
**INSTALLATION
OPTIONS**

- [2] Click on the applicable link to initiate the download. Depending on how your Windows system is configured, the installation file will either automatically load into the **Downloads** folder or you will be prompted for a location to save the file.

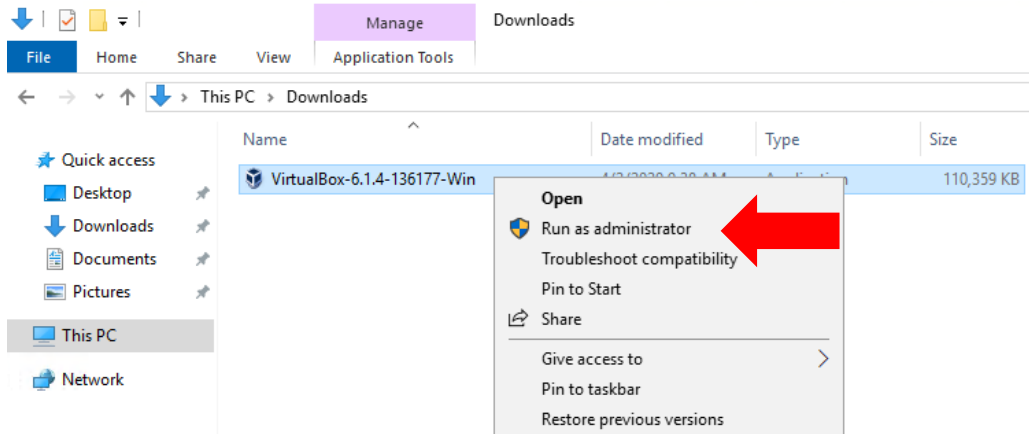


Please note the Oracle VirtualBox version depicted in this document may not match the version you are downloading since the software is continuously upgraded.

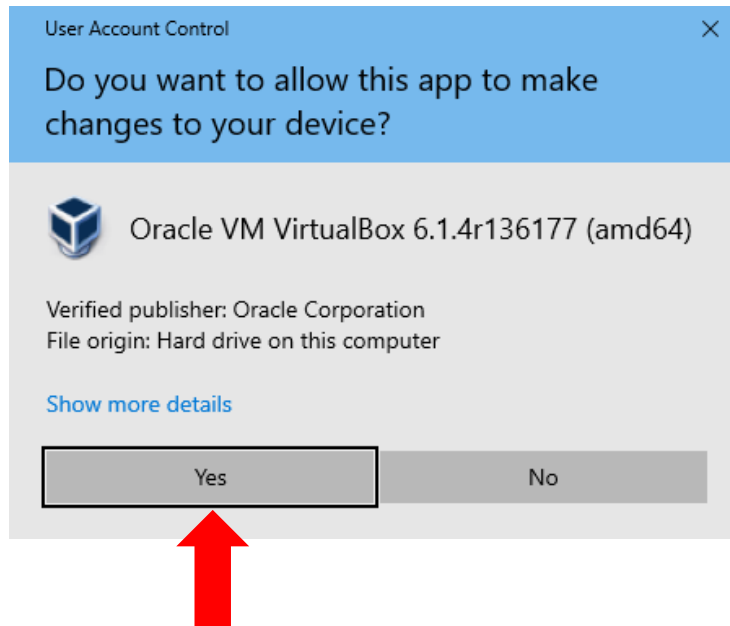
- [3] Open the **File Explorer** application. In Windows 10, the program is located in **Start Menu --> Windows System --> File Explorer**.



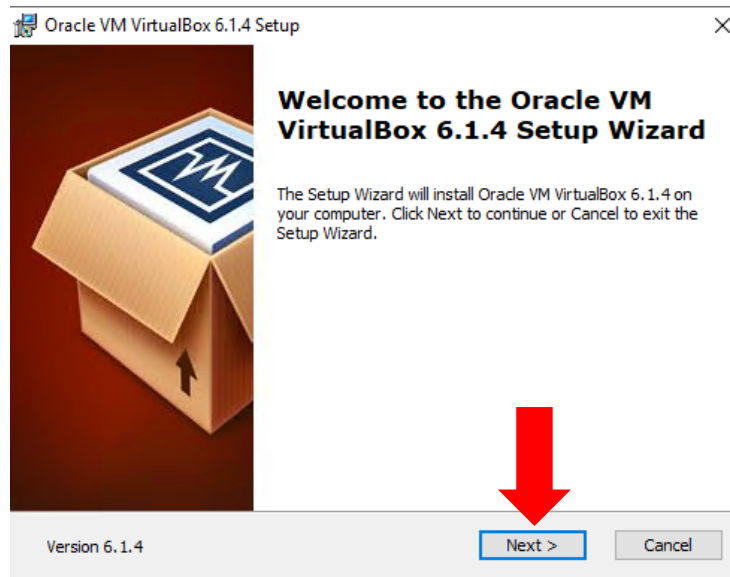
- [4] In **File Explorer**, navigate to the location the Oracle VirtualBox installation file was downloaded to. Right-click on the file with your computer mouse and select the **Run as Administrator** option from the right-click menu.



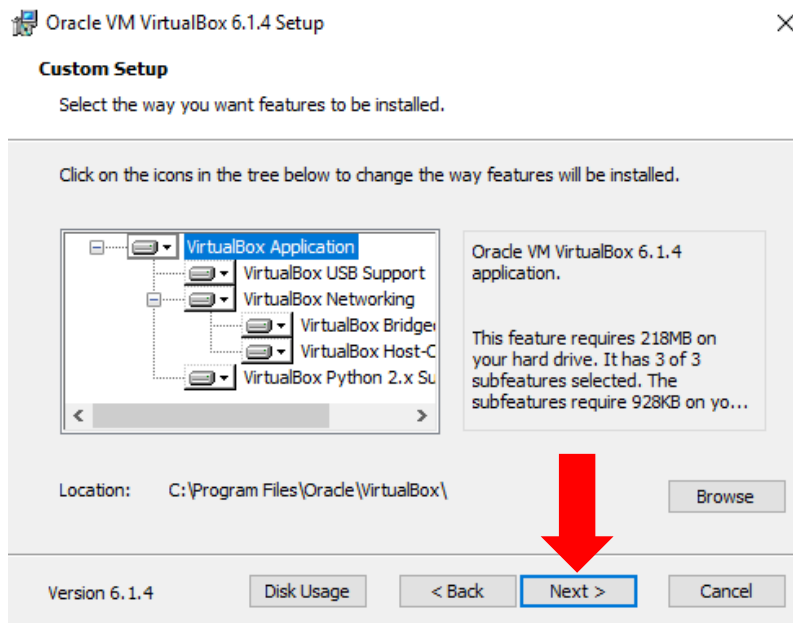
- [5] You may see a **User Account Control (UAC)** verification prompt similar to that presented below. Click on the **YES** option to initiate the installation program.



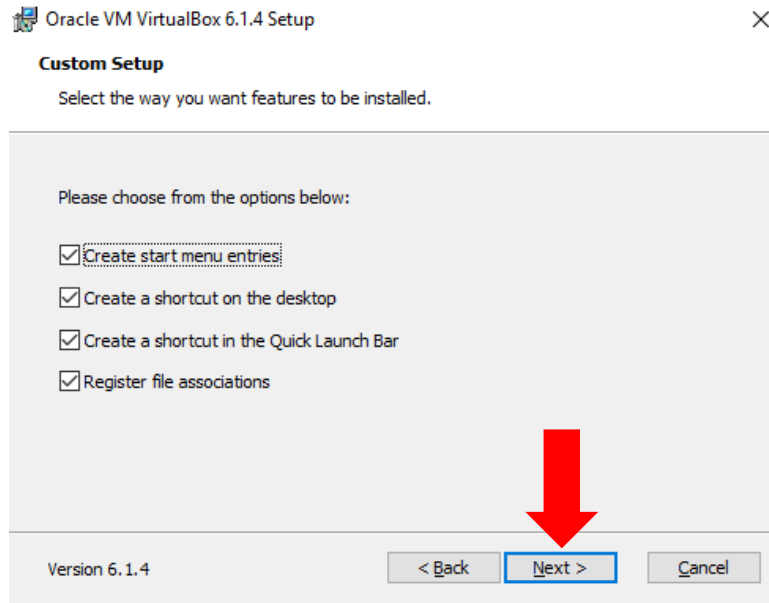
[6] Click the **NEXT** button when the following window appears:



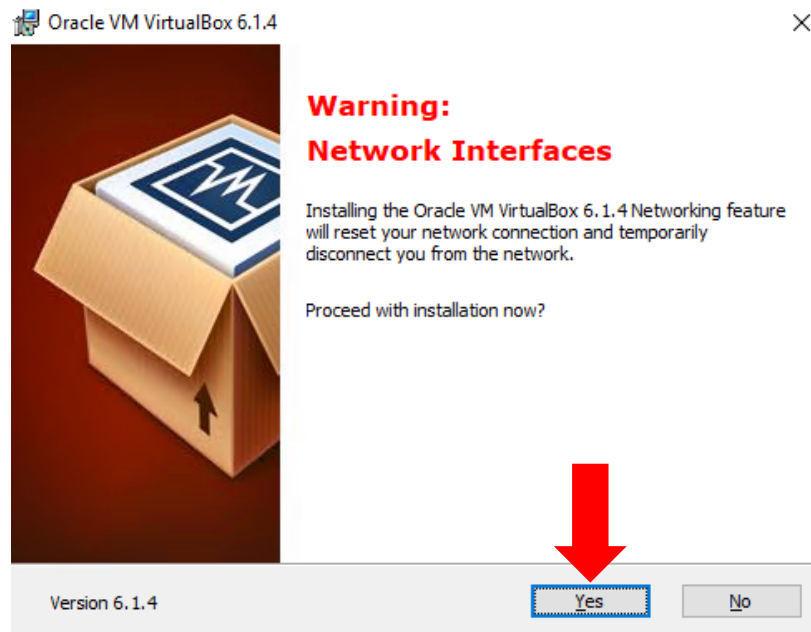
[7] The **Custom Setup** window will then appear. Leave the default options as is and click on the **NEXT** button to continue.



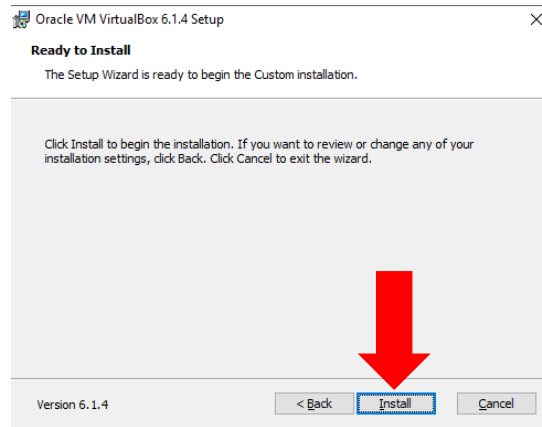
- [8] A second **Custom Setup** window will then appear. Leave the default options as is and click on the **NEXT** button to continue.



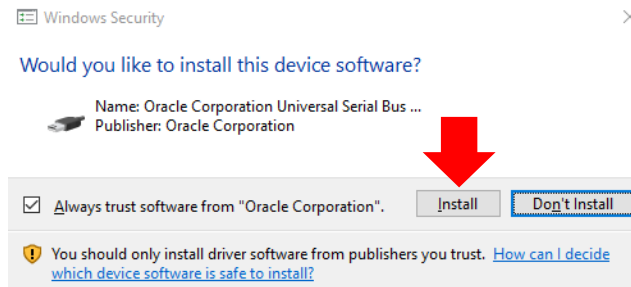
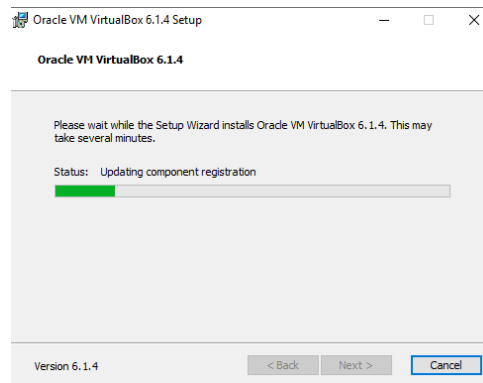
- [9] You'll then be presented with the warning prompt depicted below. Click on the **YES** button to continue.



[10] The **Ready to Install** window will appear. Click on the **INSTALL** button to execute the installation process.



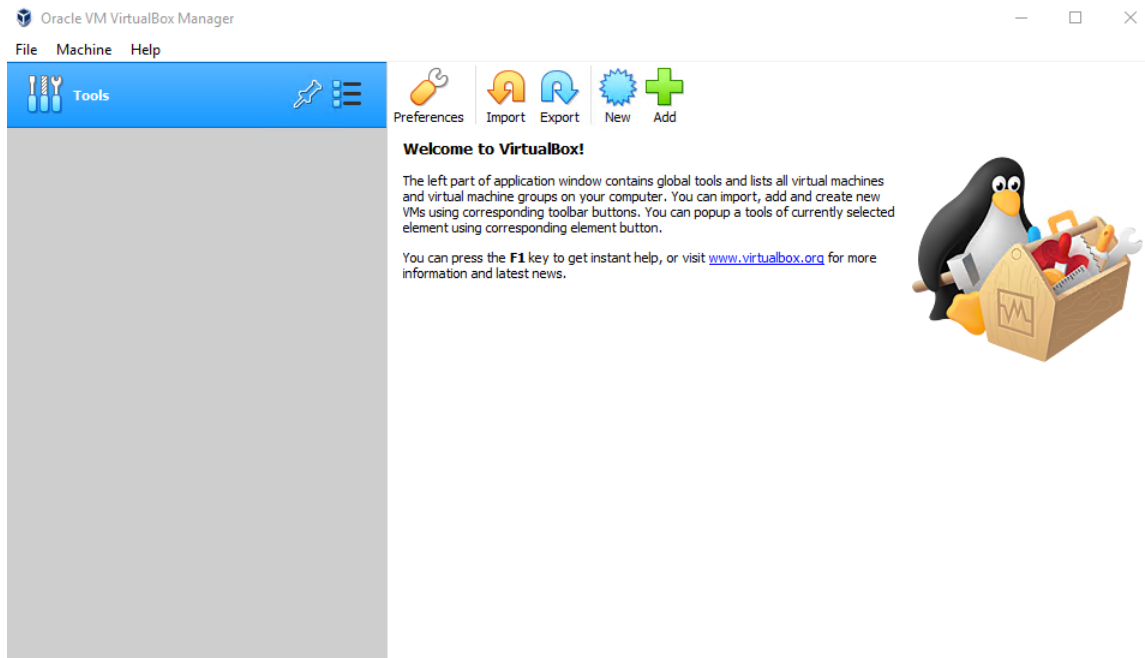
[11] The installation process will then commence. A status screen similar to that below will appear. You may receive a **“Would you like to install this device software?”** prompt similar to that presented at the bottom of this page. Click on the **INSTALL** button to approve the driver installation.



[12] You will see the window below once the installation is complete. Check the “**Start Oracle VM VirtualBox after Installation**” item as shown below. Then click on the **FINISH** button to close out the installation program.



[13] The **Oracle VM VirtualBox Manager** application will then open. You can proceed to Part 2 (next page) of this guidance document.



Part 2 – Oracle VirtualBox Extension Pack Installation

- [1] Locate the Oracle VirtualBox Extension Pack download from the following site:

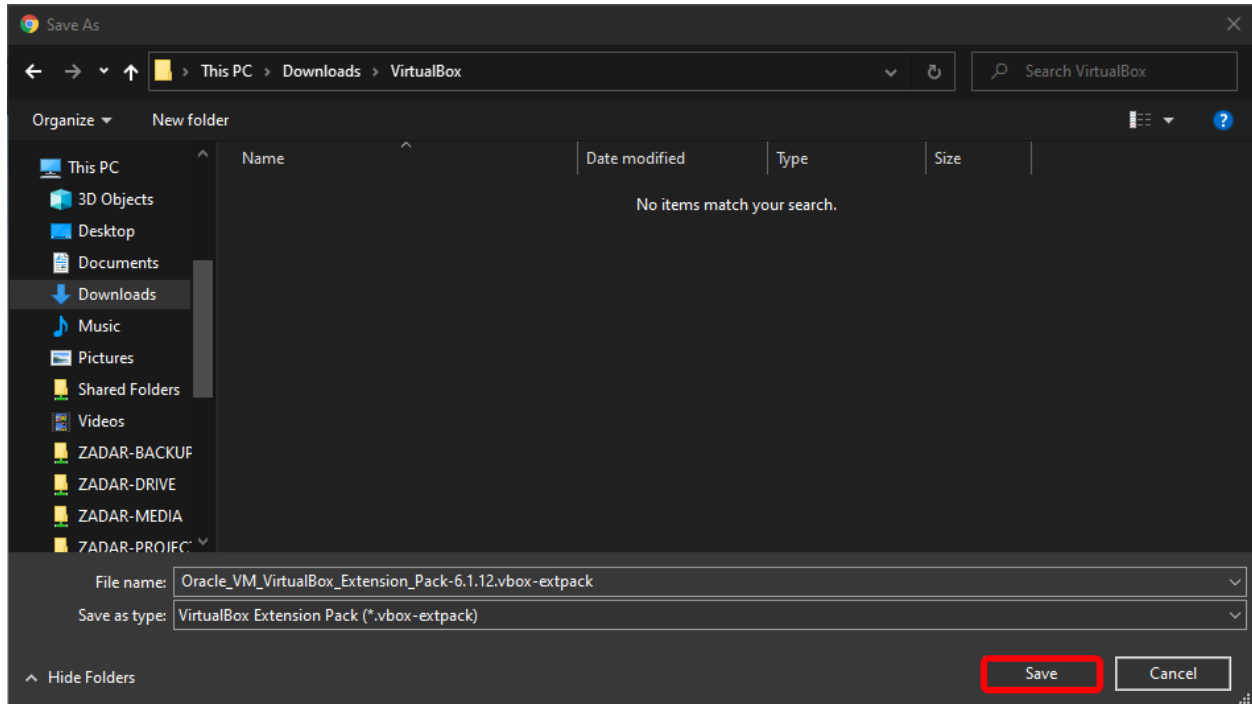
<https://www.virtualbox.org/wiki/Downloads>

With your computer mouse, click on the “All Supported Platforms” link.

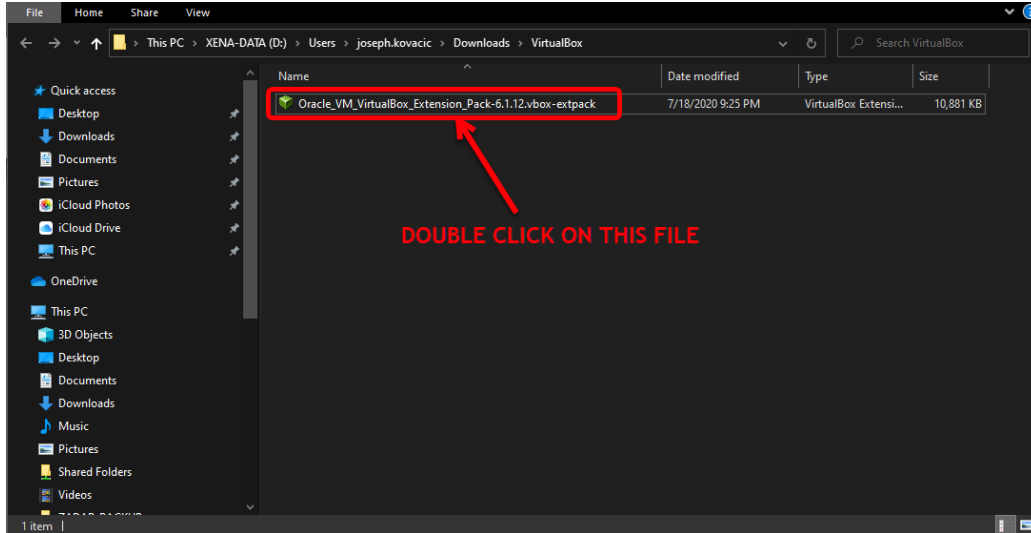


The screenshot shows the VirtualBox website's 'Downloads' page. The page title is 'VirtualBox Download VirtualBox'. A sidebar on the left contains navigation links: About, Screenshots, Downloads, Documentation (with sub-links for End-user docs and Technical docs), Contribute, and Community. The main content area includes a search bar and a 'Login Preferences' link. The text on the page explains that the page provides links to VirtualBox binaries and source code. It lists 'VirtualBox binaries' and notes that downloading implies agreement to the license. It provides links for the latest 6.0 and 5.2 packages, mentioning their support end dates. Under 'VirtualBox 6.1.12 platform packages', there is a list of links: Windows hosts, OS X hosts, Linux distributions, and Solaris hosts. A note states that binaries are released under GPL version 2 and refers to a changelog. A warning about checksums is present, recommending SHA256 over MD5. A 'Note' section advises upgrading guest additions after upgrading VirtualBox. The section 'VirtualBox 6.1.12 Oracle VM VirtualBox Extension Pack' contains a list with one item: 'All supported platforms'. This item is highlighted with a red box, and a red arrow points from the text 'DOWNLOAD LINK' to it. Below this list, there is a paragraph of support information for USB 2.0/3.0 devices, RDP, disk encryption, NVMe, and PXE boot, along with a reference to the User Manual and the PUEL license.

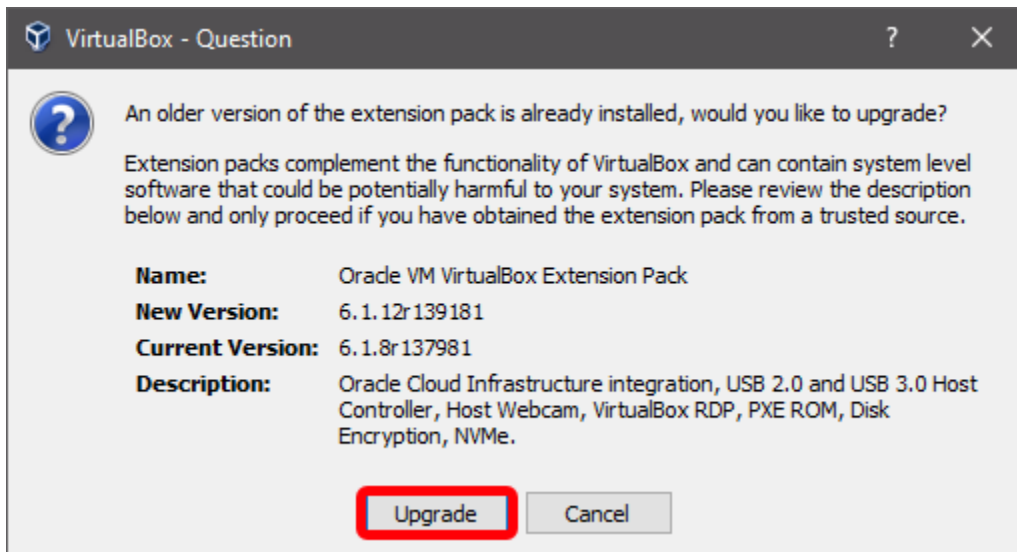
- [2] A “**Save As**” prompt will appear. Navigate to an accessible location on your computer and then click on the **SAVE** button to save the extension pack file.



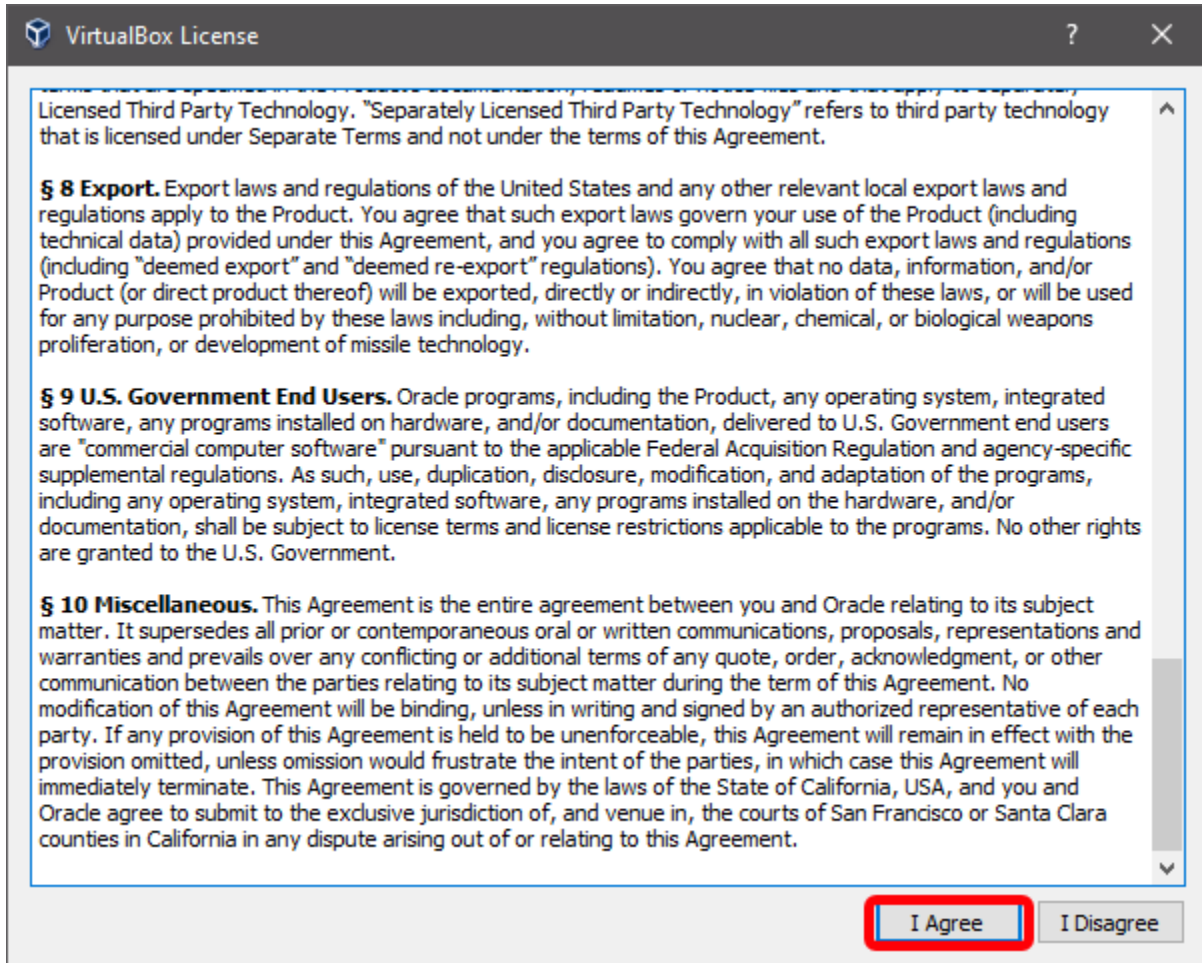
- [3] Access the Windows File Explorer application and navigate to the location of the extension pack file. With your computer mouse, double-click on the Oracle VirtualBox Extension Pack file.



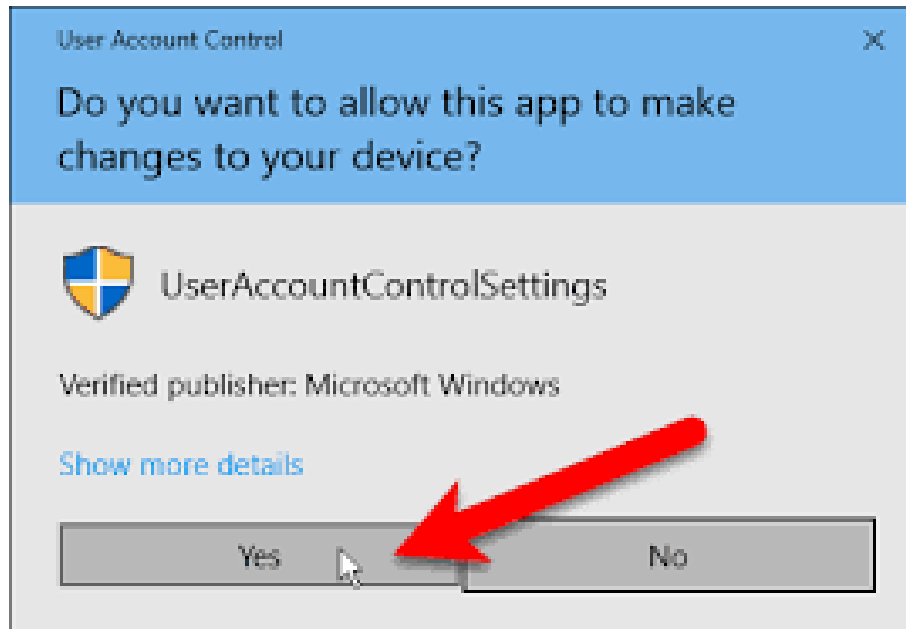
- [4] You may receive the following prompt if you already have Oracle VirtualBox and the Oracle VirtualBox Extension Pack installed. If you receive this prompt, click on the **UPGRADE** button to perform the upgrade.



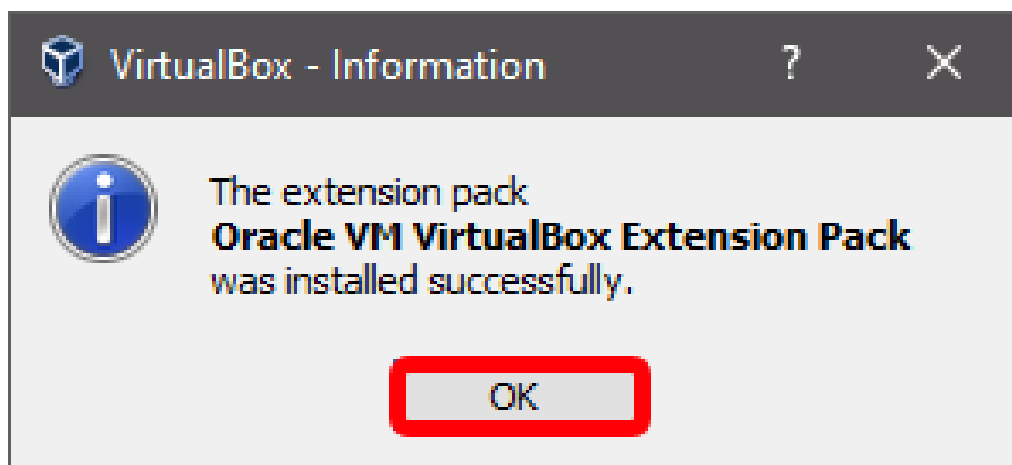
- [5] You'll then see the VirtualBox license agreement screen. Scroll through and review the licensing information. Click on the **I AGREE** button to continue the installation.



- [6] You may then receive a **User Account Control (UAC)** prompt similar to that presented below. Click on the **YES** button to continue the installation.



- [7] You'll receive the following prompt once the installation has finished. Click on the **OK** button to close out the prompt.



Part 3 – Cloudera QuickStart VM Installation

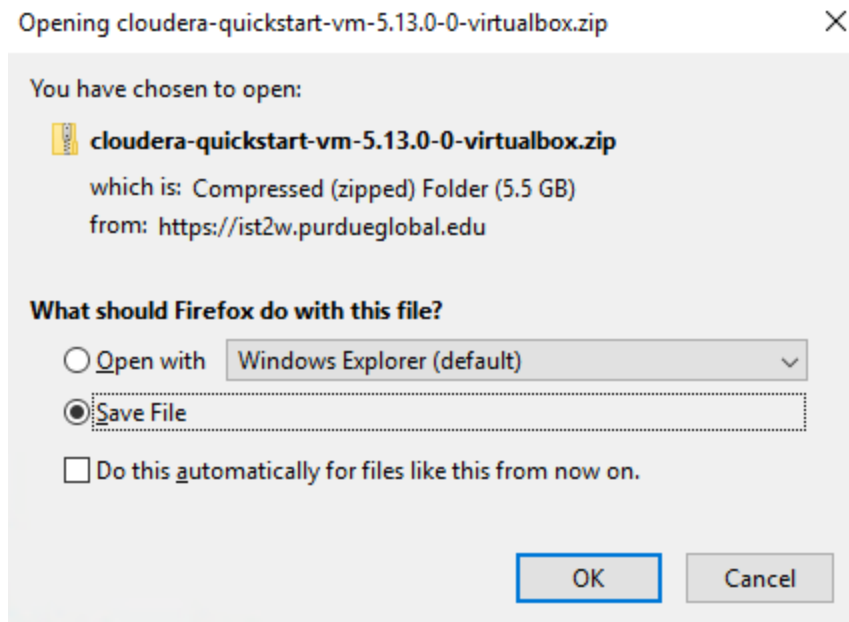
- [1] Using a web browser like Google Chrome or Mozilla Firefox, download the Cloudera QuickStart VM Version 5.13 archive file via one of the following links:

https://downloads.cloudera.com/demo_vm/virtualbox/cloudera-quickstart-vm-5.13.0-0-virtualbox.zip

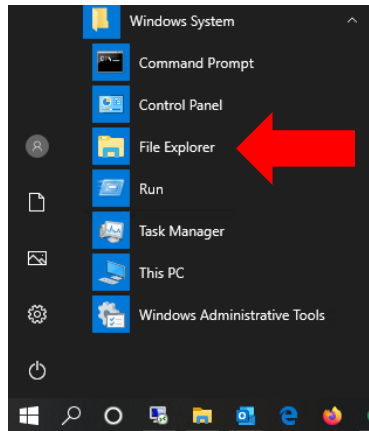
OR

<https://ist2w.purdueglobal.edu/iso/cloudera-quickstart-vm-5.13.0-0-virtualbox.zip>

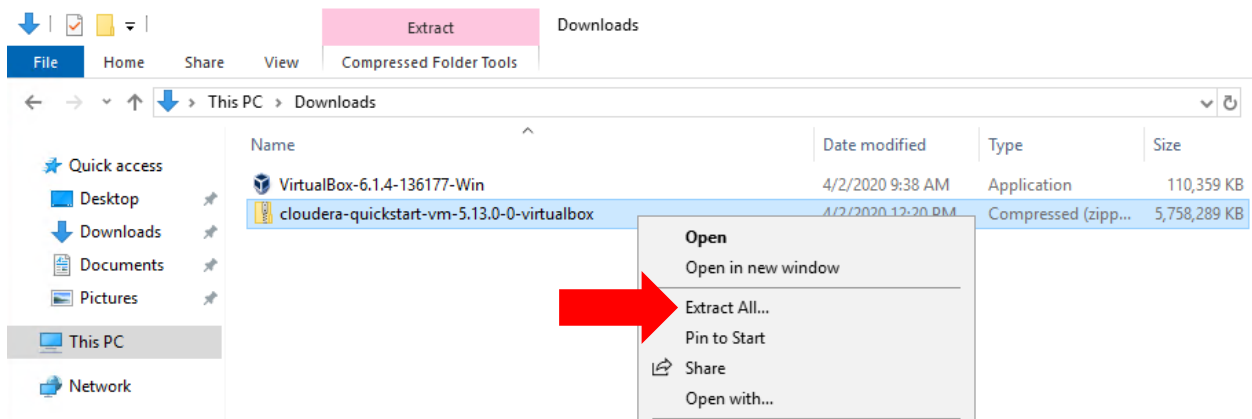
Depending on how your Windows system is configured, the archive file will either automatically load into the **Downloads** folder or you will be prompted for a location to save the file. Save the file to an accessible folder location on your computer (e.g., **Documents, Downloads**, etc.). The archive file is approximately 6 GB in size. The amount of time it takes for the download to complete is dependent on broadband speed.



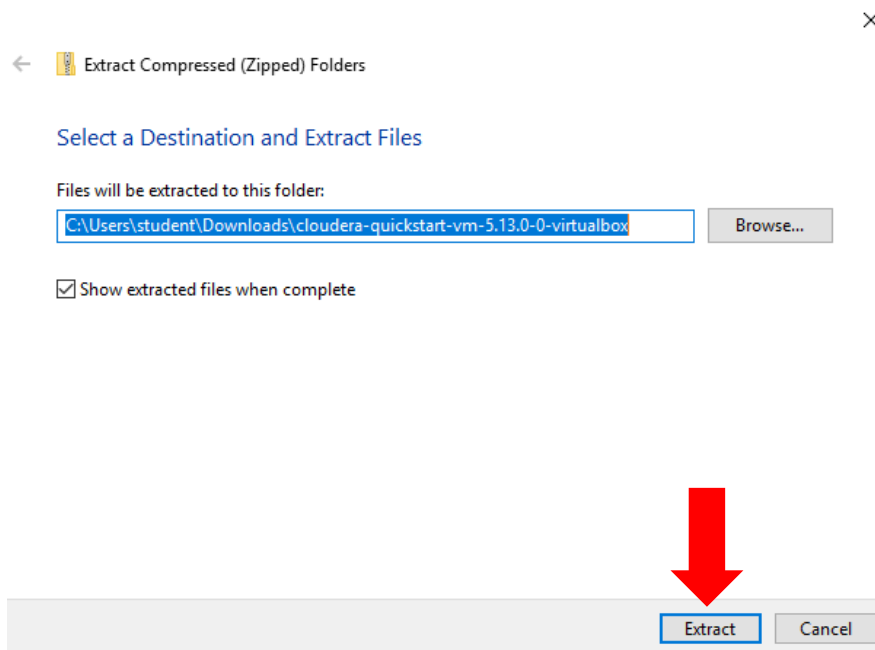
- [2] Open the **File Explorer** application. In Windows 10, the program is located in **Start Menu --> Windows System --> File Explorer**.



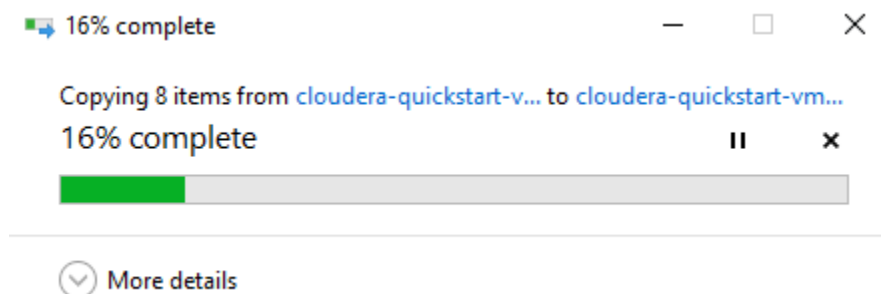
- [3] In **File Explorer**, navigate to the location the Cloudera QuickStart VM archive file was downloaded to. Right-click on the file (**cloudera-quickstart-vm-5.13.0-0-virtualbox.zip**) with your computer mouse and select the **Extract All...** option from the right-click menu.



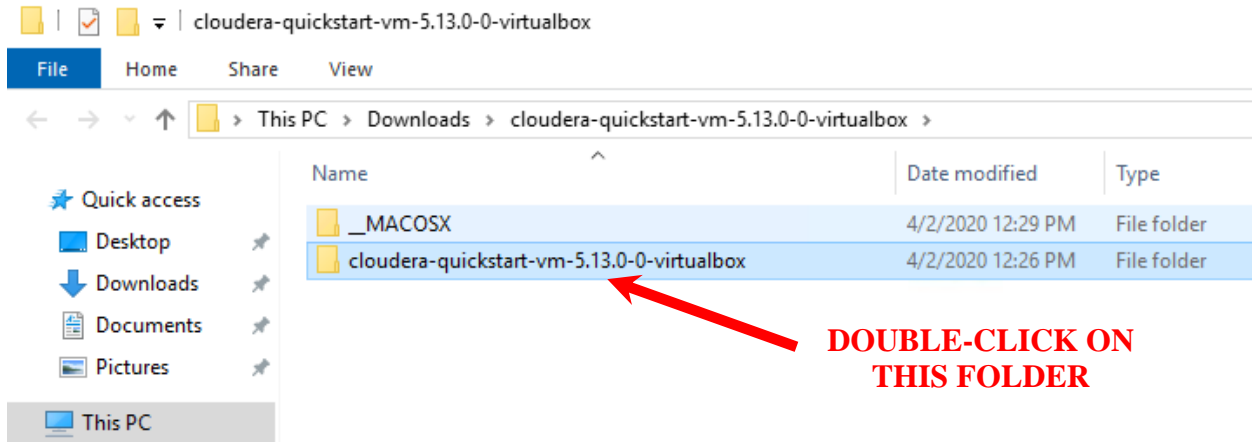
- [4] You'll then be prompted for an extraction location. You can accept the specified default location or change it to a personal preference. Please make sure you note where the archive contents are extracted to. Click on the **EXTRACT** button to initiate the extraction process.



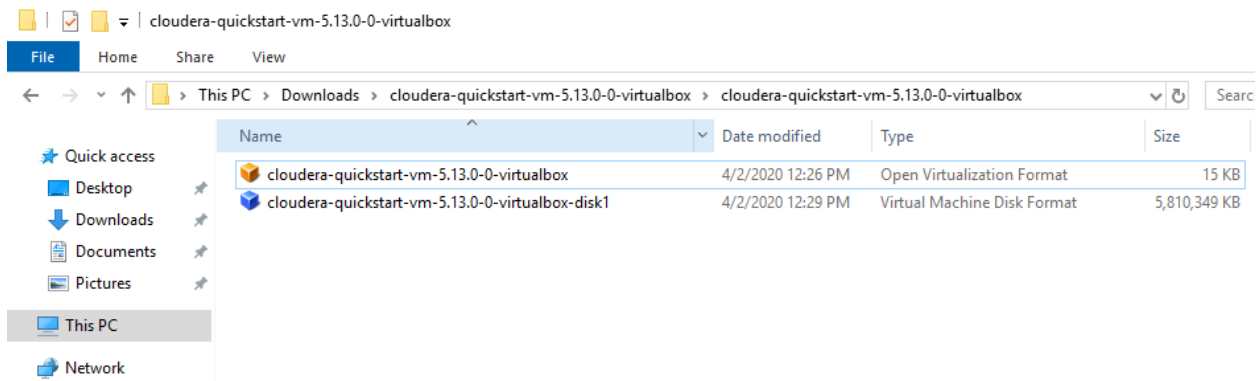
- [5] You'll then be presented with an extraction progress bar. The total time to complete the extraction process is dependent on system capabilities.



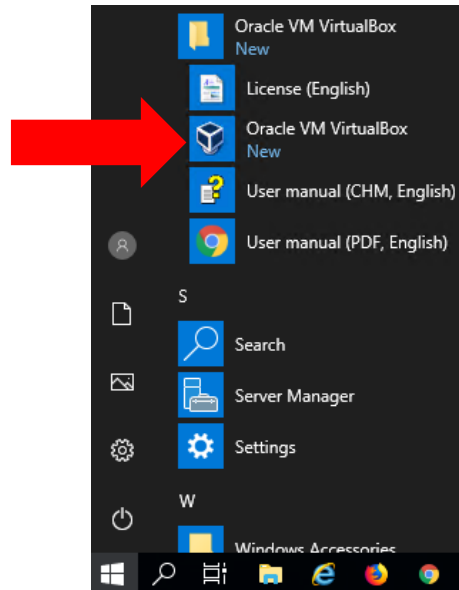
- [6] Once the extract progress is complete, a new **File Explorer** window will appear showing the extracted contents. Double-click on the **cloudera-quickstart-vm-5.13.0-0-virtualbox** folder to view its contents.



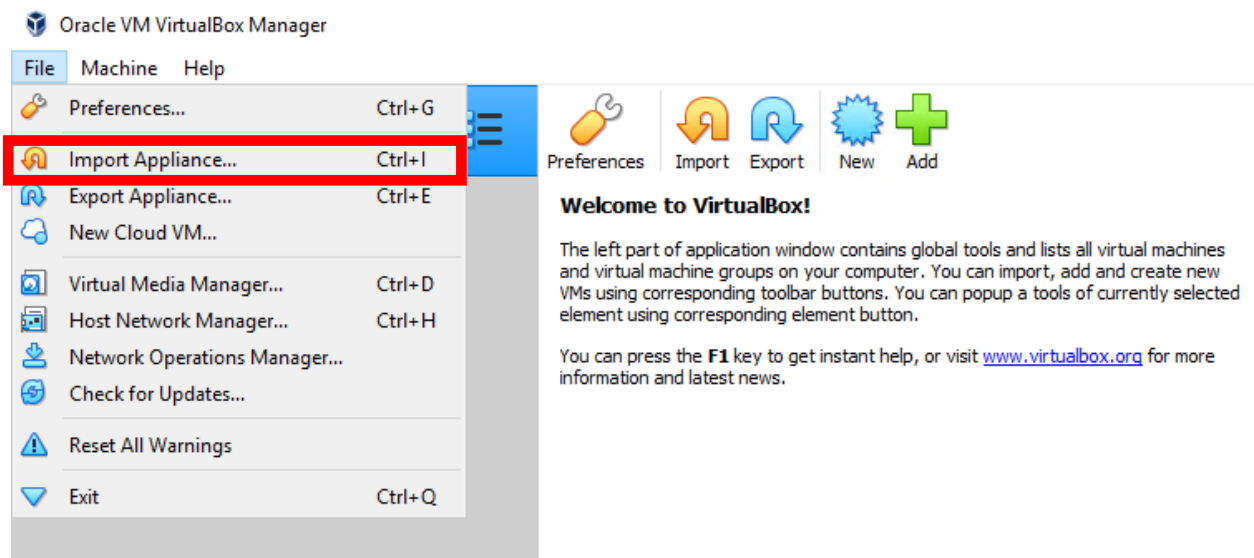
- [7] There should be two files contained within the **cloudera-quickstart-vm-5.13.0-0-virtualbox** folder. The first item is an open virtualization format (OVF) file that contains information on the virtual machine. The second item contains the virtual machine's storage component in virtual machine disk format (VMDF).



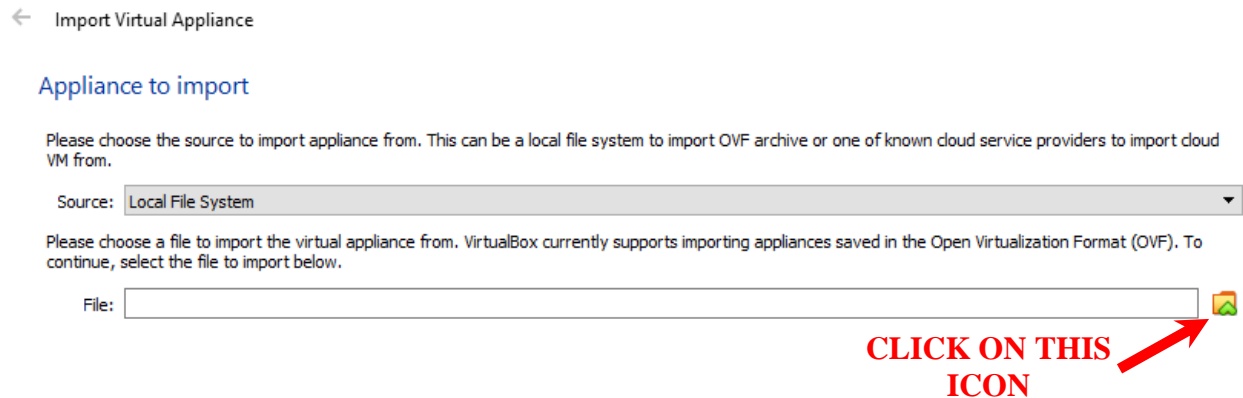
- [8] Open the **Oracle VM VirtualBox Manager** application. In Windows 10, the program is located in **Start Menu --> Oracle VM VirtualBox --> Oracle VM VirtualBox**.



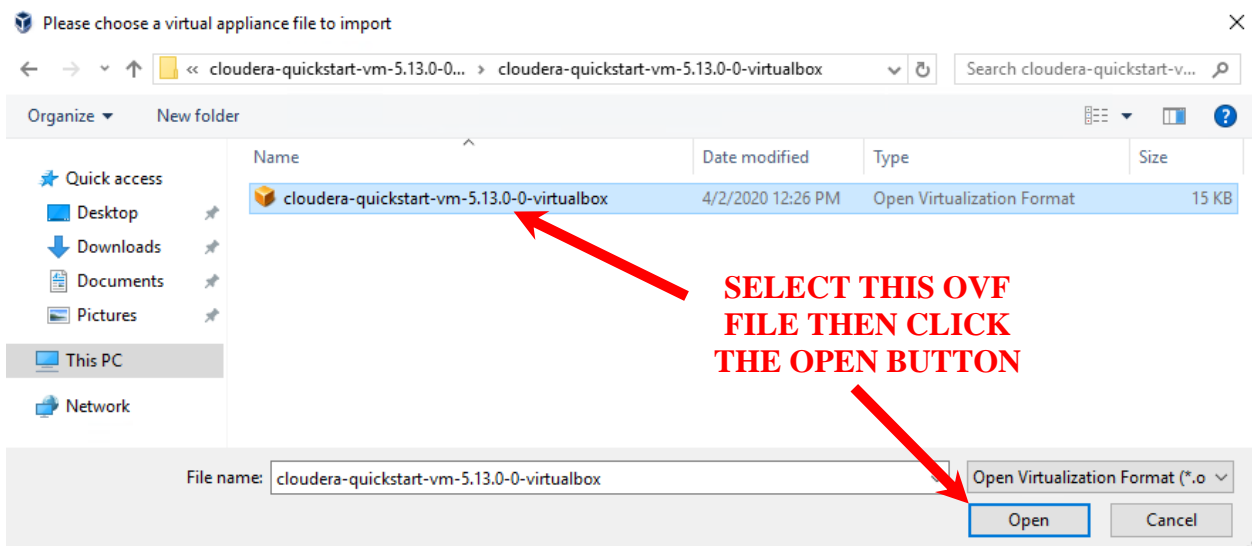
- [9] In the **Oracle VM VirtualBox Manager** window, click on the **File --> Import Appliance...** option from the top menu.



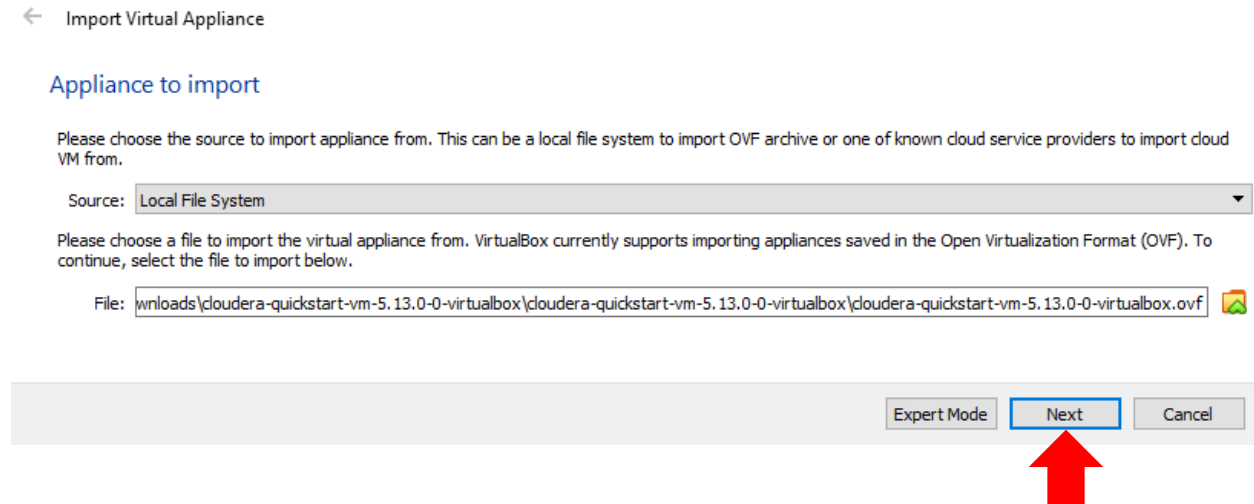
[10] You will now be presented with the **Import Virtual Appliance** window. The source should be set to the **Local File System** option. Click on the folder icon (📁) located on the right side of the **File** text field.



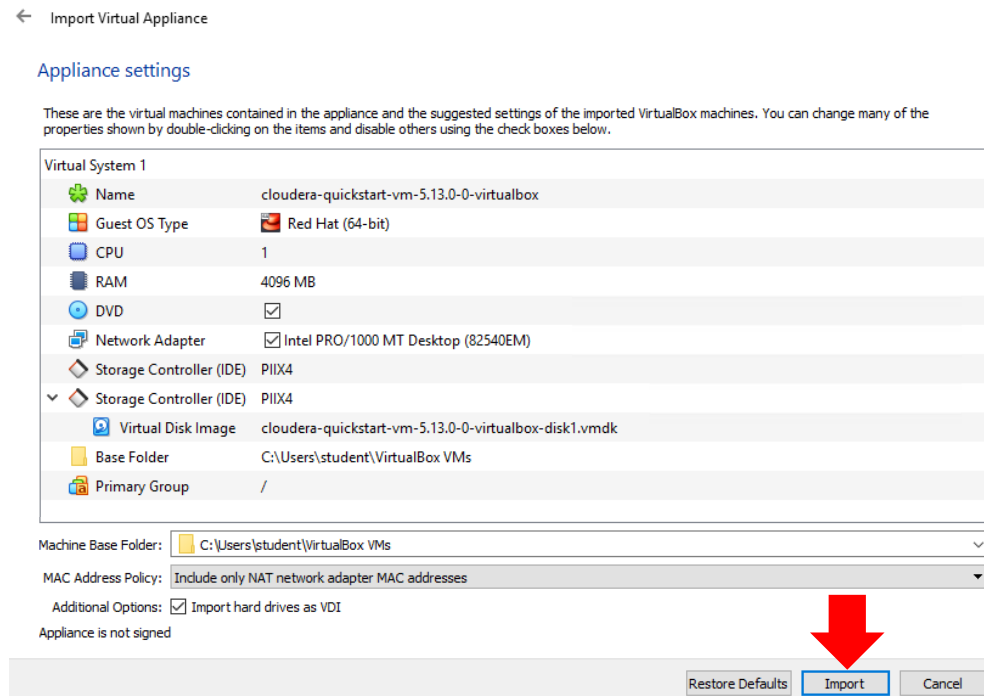
[11] An import file selection window will then appear. Navigate to the folder storing the OVF file denoted in Step 7. Select the OVF file and click the **OPEN** button.



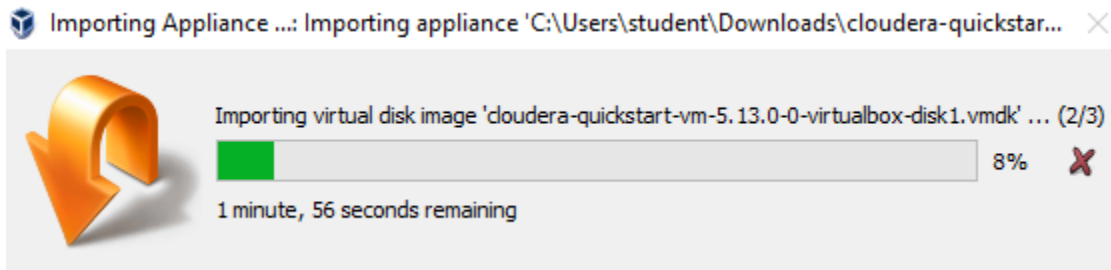
[12] The **File** text field of the **Import Virtual Appliance** window will now show the OVF file along with its directory path. Click on the **NEXT** button to continue.



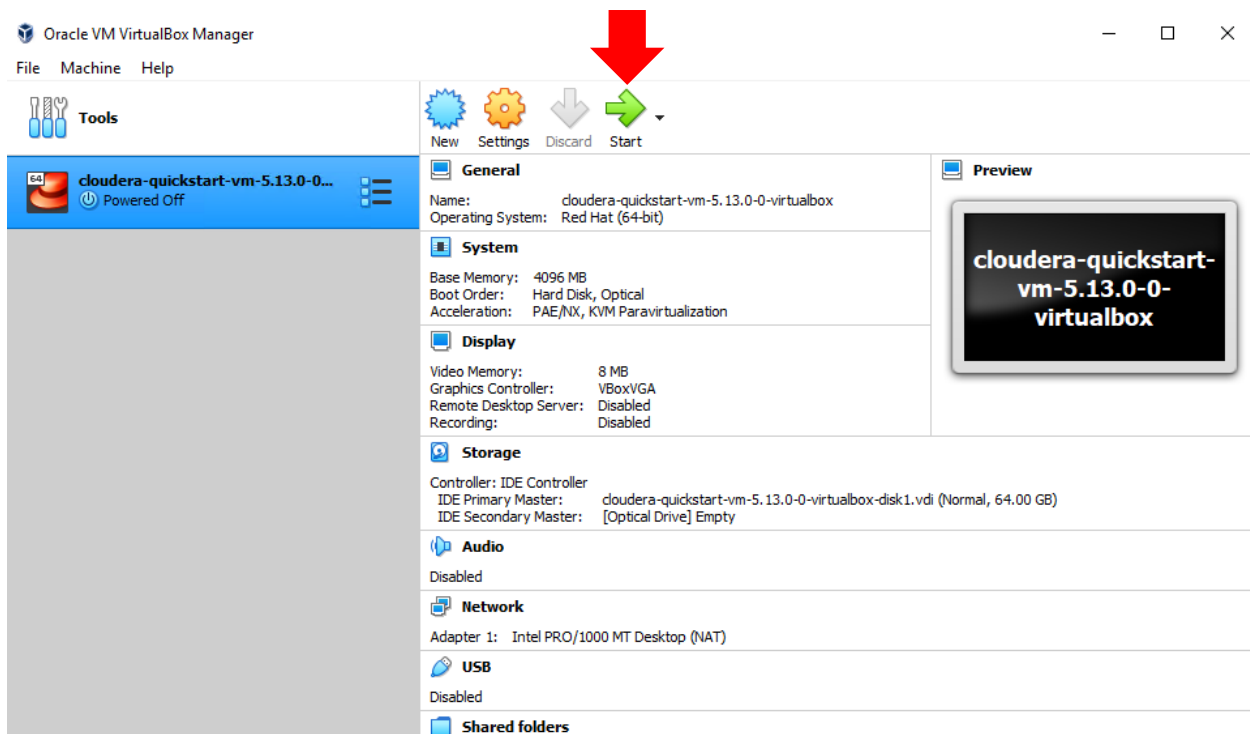
[13] The **Appliance Settings** window will then appear showing the Cloudera QuickStart VM settings. Leave the default options as is and click on the **IMPORT** button to launch the VM import process.



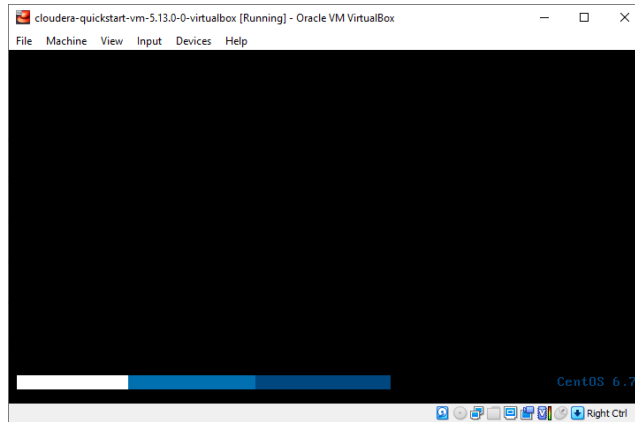
[14] You'll then be presented with the appliance import progress bar. The total time to complete the import process is dependent on system capabilities. The progress bar will disappear once the import process is complete.



[15] Following the import process, the **Oracle VM VirtualBox Manager** window will show the newly imported Cloudera QuickStart VM in the inventory list located in the left window pane. Highlight or select the Cloudera QuickStart VM entry and then select the **START** button to boot-up the VM.



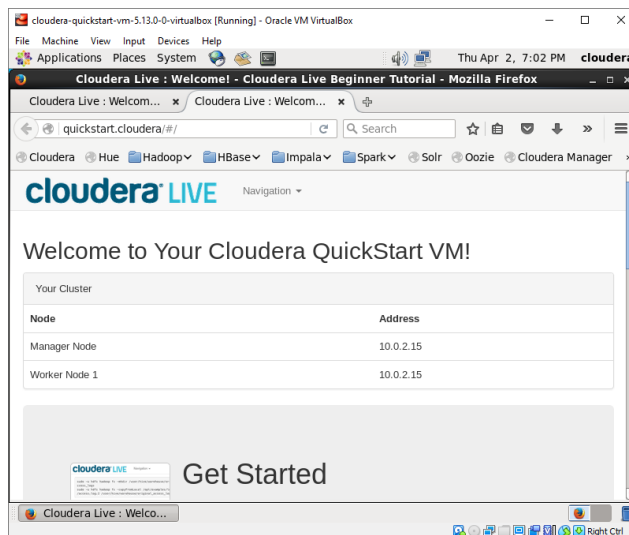
[16] The VM will begin to boot-up in a new window as depicted below.



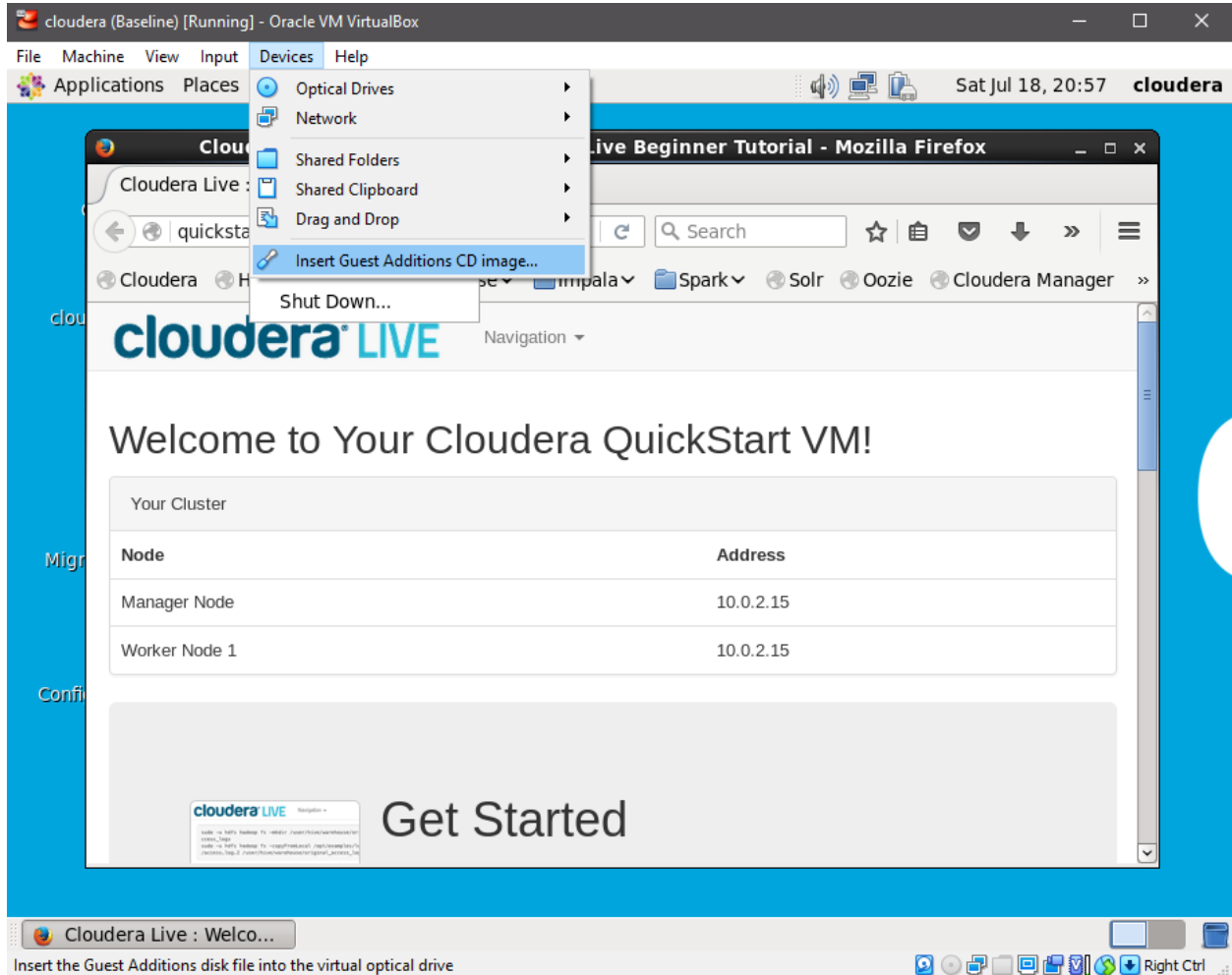
[17] The VM will automatically login as the “**cloudera**” user. The username/password for applications within the VM are as follows:

Username: **cloudera**
Password: **cloudera**

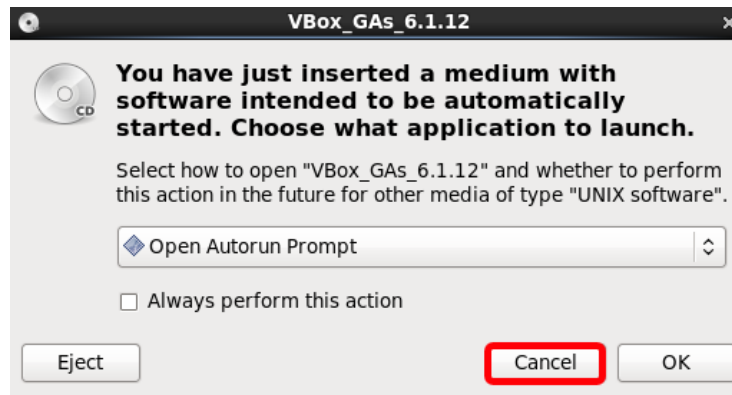
The Mozilla Firefox browser will automatically open during startup displaying a welcome message similar to that illustrated below. This indicates the VM booted properly.



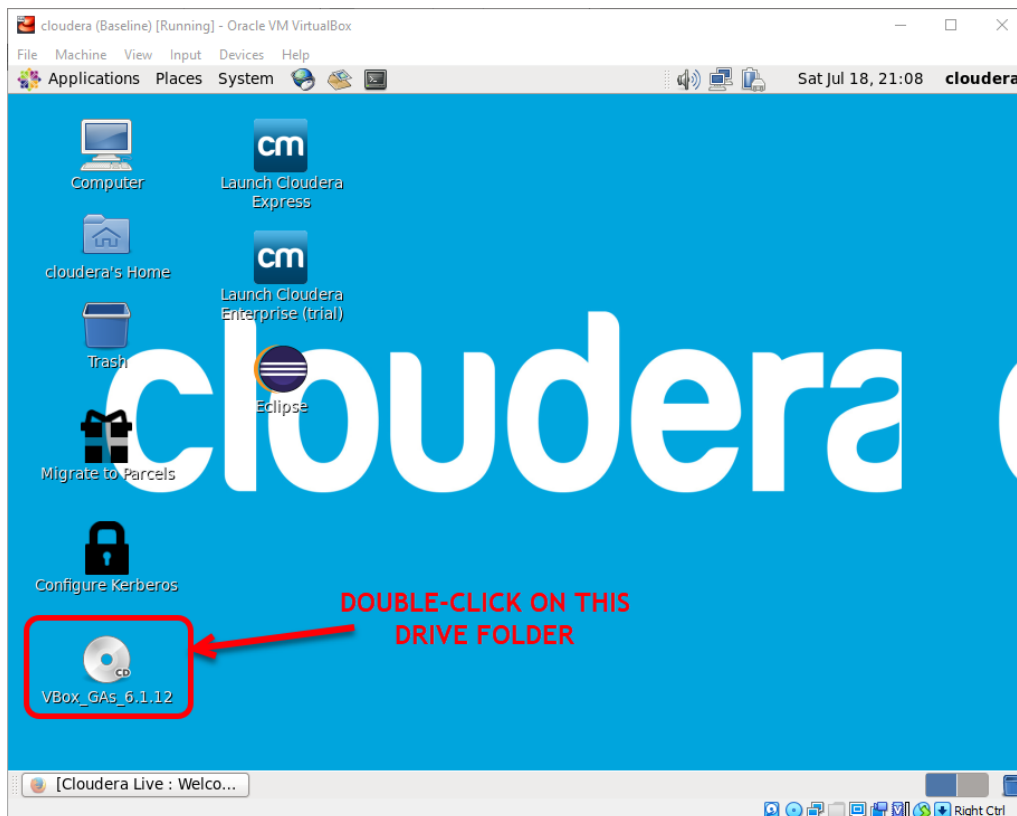
[17] You now need to install VirtualBox Guest Additions functionality in the Cloudera virtual machine. In the top menu of the virtual machine window, select **DEVICES**→**INSERT GUEST ADDITIONS CD IMAGE**.



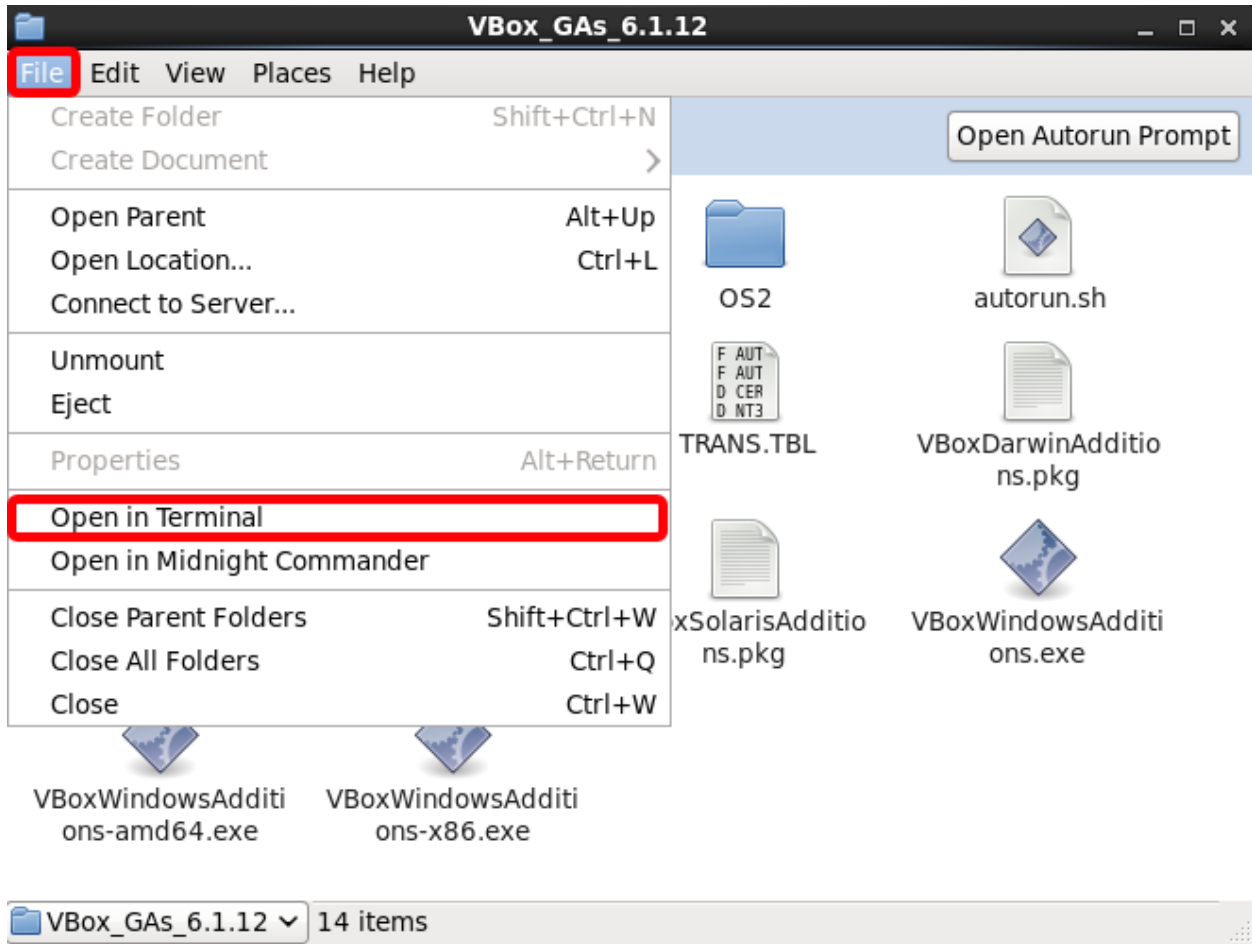
[18] You may then see the following prompt. Click on the **CANCEL** button to close out the prompt.



[19] On the Linux desktop, double click on the drive folder with the name starting with “VBox_Gas” and depicted with a CD-ROM icon.



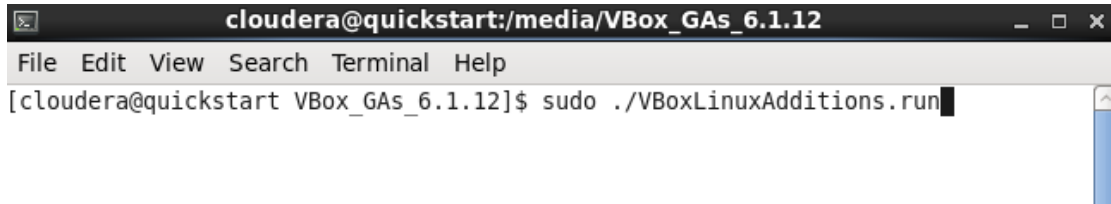
[20] The “VBox_GAs” drive folder will appear. In the top menu, select **FILE**→**OPEN IN TERMINAL** option.



- [21] A Terminal window will then appear. Execute the following statement at the Linux command prompt:

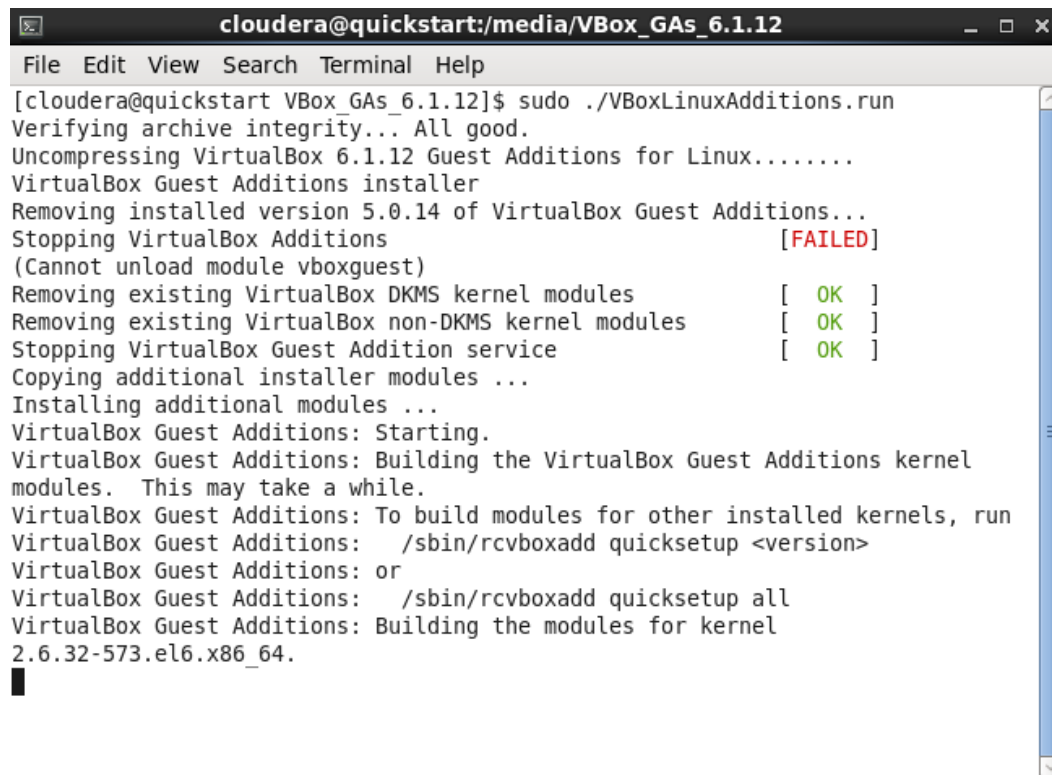
```
sudo ./VBoxLinuxAdditions.run
```

Hit the **ENTER** key after entering the above statement.



```
cloudera@quickstart:/media/VBox_GAs_6.1.12
File Edit View Search Terminal Help
[cloudera@quickstart VBox_GAs_6.1.12]$ sudo ./VBoxLinuxAdditions.run
```

- [22] The installation process will begin. Accept the defaults if prompted for any options.

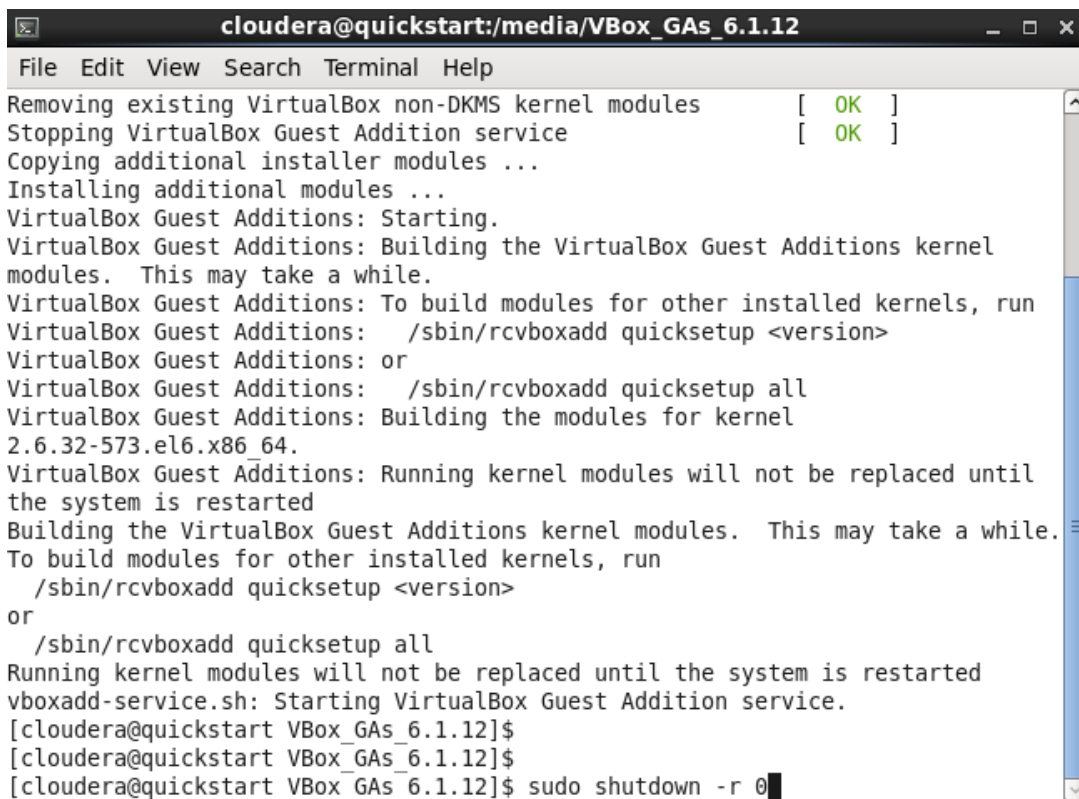


```
cloudera@quickstart:/media/VBox_GAs_6.1.12
File Edit View Search Terminal Help
[cloudera@quickstart VBox_GAs_6.1.12]$ sudo ./VBoxLinuxAdditions.run
Verifying archive integrity... All good.
Uncompressing VirtualBox 6.1.12 Guest Additions for Linux.....
VirtualBox Guest Additions installer
Removing installed version 5.0.14 of VirtualBox Guest Additions...
Stopping VirtualBox Additions [FAILED]
(Cannot unload module vboxguest)
Removing existing VirtualBox DKMS kernel modules [ OK ]
Removing existing VirtualBox non-DKMS kernel modules [ OK ]
Stopping VirtualBox Guest Addition service [ OK ]
Copying additional installer modules ...
Installing additional modules ...
VirtualBox Guest Additions: Starting.
VirtualBox Guest Additions: Building the VirtualBox Guest Additions kernel
modules. This may take a while.
VirtualBox Guest Additions: To build modules for other installed kernels, run
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup <version>
VirtualBox Guest Additions: or
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup all
VirtualBox Guest Additions: Building the modules for kernel
2.6.32-573.el6.x86_64.
```

- [23] Enter the following statement at the Linux command prompt to reboot the virtual machine after the guest additions installation has completed:

```
sudo shutdown -r 0
```

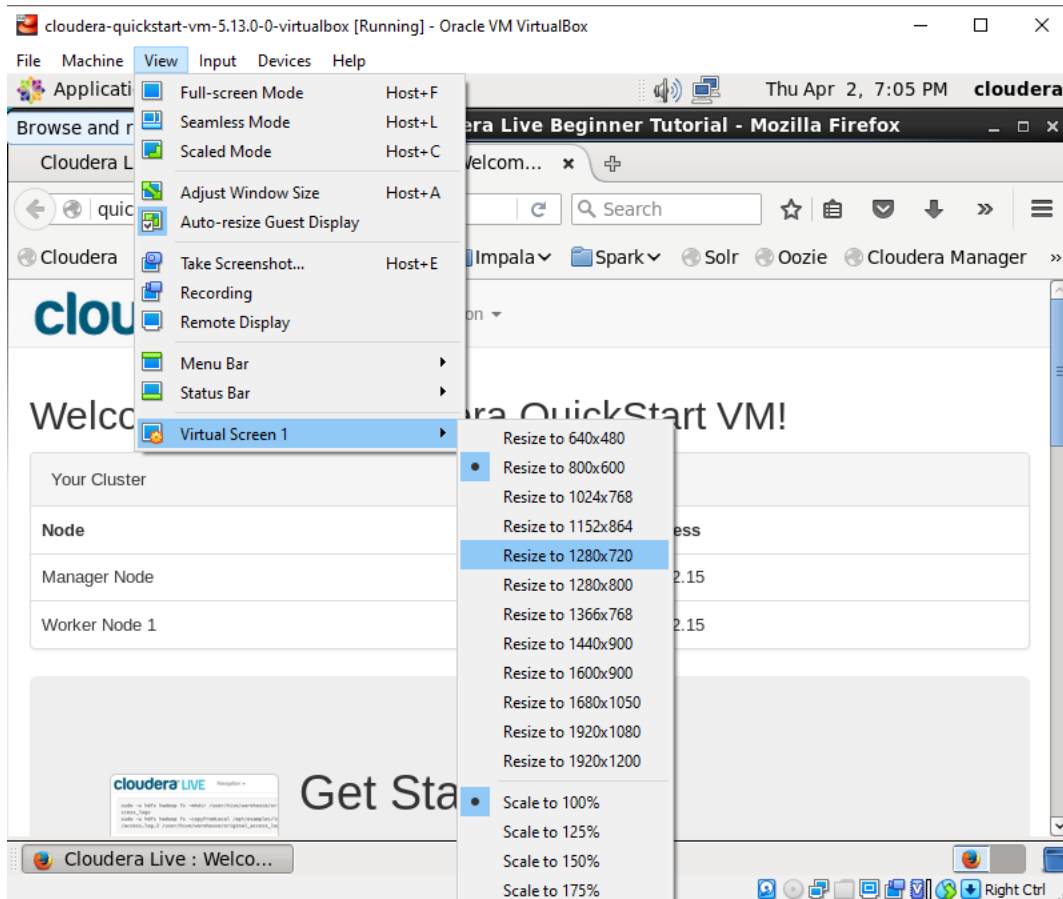
Hit the **ENTER** key after entering the above statement.



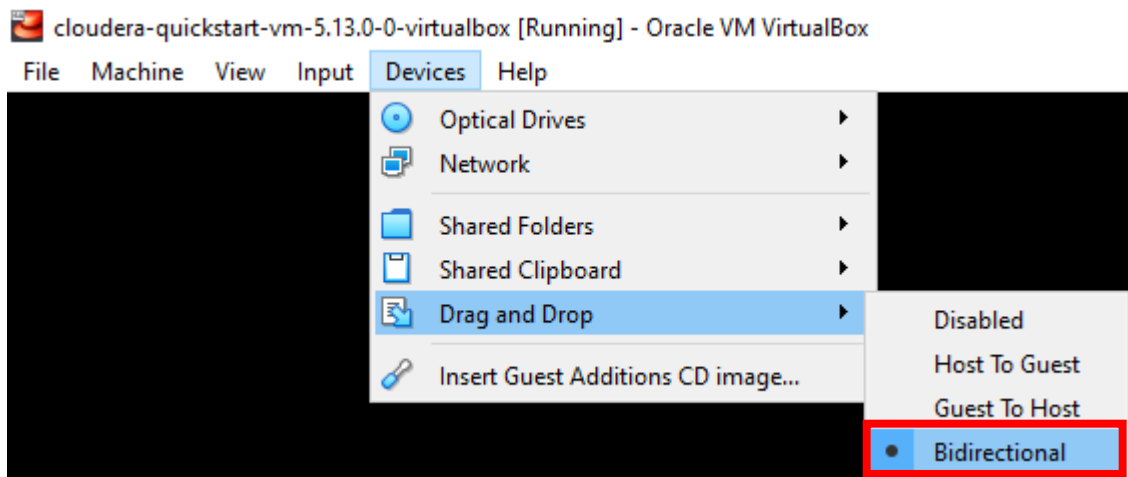
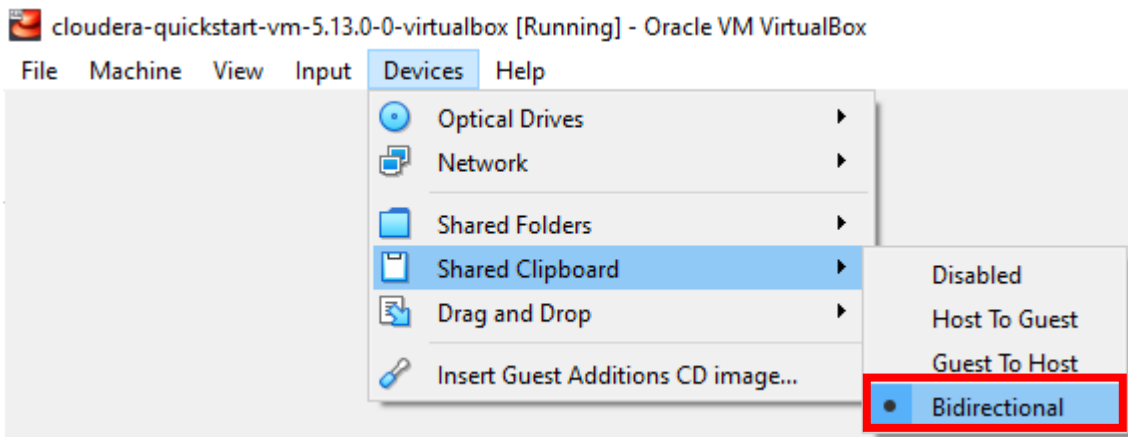
```
cloudera@quickstart:/media/VBox_GAs_6.1.12
File Edit View Search Terminal Help
Removing existing VirtualBox non-DKMS kernel modules      [ OK ]
Stopping VirtualBox Guest Addition service                [ OK ]
Copying additional installer modules ...
Installing additional modules ...
VirtualBox Guest Additions: Starting.
VirtualBox Guest Additions: Building the VirtualBox Guest Additions kernel
modules. This may take a while.
VirtualBox Guest Additions: To build modules for other installed kernels, run
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup <version>
VirtualBox Guest Additions: or
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup all
VirtualBox Guest Additions: Building the modules for kernel
2.6.32-573.el6.x86_64.
VirtualBox Guest Additions: Running kernel modules will not be replaced until
the system is restarted
Building the VirtualBox Guest Additions kernel modules. This may take a while.
To build modules for other installed kernels, run
/sbin/rcvboxadd quicksetup <version>
or
/sbin/rcvboxadd quicksetup all
Running kernel modules will not be replaced until the system is restarted
vboxadd-service.sh: Starting VirtualBox Guest Addition service.
[cloudera@quickstart VBox_GAs_6.1.12]$
[cloudera@quickstart VBox_GAs_6.1.12]$
[cloudera@quickstart VBox_GAs_6.1.12]$ sudo shutdown -r 0
```

- [24] The Cloudera Quickstart virtual machine will then reboot with the newly installed Oracle VirtualBox Guest Additions functionality.

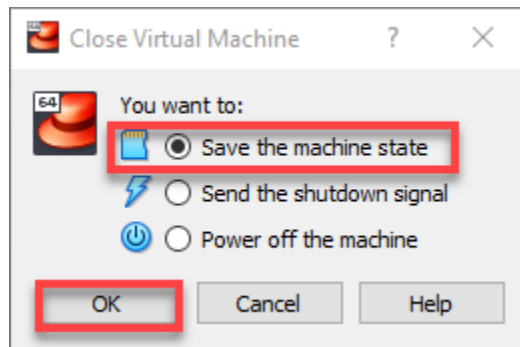
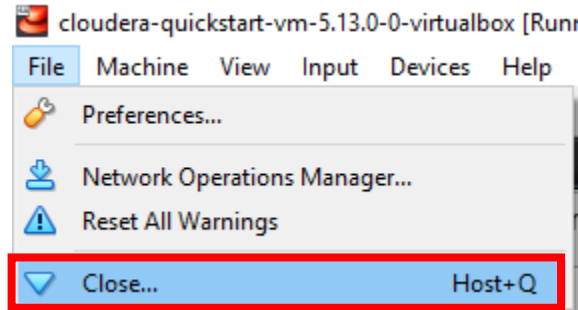
[25] You can resize the VM window by selecting the applicable option within the **VIEW-->VIRTUAL SCREEN** section as depicted below. You will be ready to commence with the applicable coursework after adjusting the screen size.



[26] You will likely need to copy text and files between your host computer and the Cloudera QuickStart appliance. To be able to do this, you will need to change the “Drag and Drop” and “Shared Clipboard” settings. Access **DEVICES --> SHARED CLIPBOARD** in the top menu of the virtual machine window and select the “Bidirectional” option. Then access **DEVICES --> DRAG AND DROP** in the top menu of the virtual machine window and select the “Bidirectional” option.



[27] To close your Cloudera Quickstart appliance, select the **FILE --> CLOSE** option from the top menu of the virtual machine window. You will then be prompted to select a closeout option. Select the **“Save the machine state”** option and click on the **OK** button.



The Oracle VirtualBox Manager application will show the appliance as being in a “Saved” state. This will allow you to quickly restart the appliance when needed.

