Creating a Windows Virtual Machine in a macOS computer— using Oracle Virtual Box

Table of Contents

Introducing Oracle Virtual Box	2
Download the files required	
Creating virtual machine using a virtual hard disk file (.ova)	4
Step 1	4
Step 2	4
Step 3	5
Step 4	6
Step 5	7
Step 6	8
Step 7	9
Step 8	10
Step 9	11
Step 10	12

Introducing Oracle Virtual Box

Oracle Virtual Box is a virtualisation software for enterprise as well as for home use. It is freely available since it is an Open-Source software under the terms of GNU General Public License (GPL) version 2.

Virtual Box can be installed and run-on Windows, Linux, Macintosh, and Solaris host machines.

You can download Oracle virtual box from their official website: https://www.virtualbox.org/

Mac users should select the correct installation file for OS X hosts as shown below.



Install Oracle Virtual Box on your macOS computer.

You may also want to install the Extension packs for extended functionality (e.g. USB 3.0). Refer to the <u>Oracle VM Virtual Box User Manual</u> for more information: (Long URL: https://www.virtualbox.org/manual/ch01.html#intro-installing)

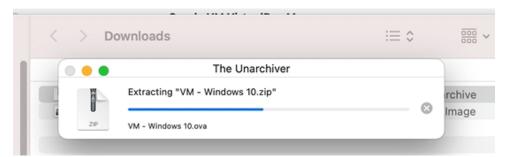
Download the files required

First, you must download the **VM** - **Windows 10 (.zip)** file to a location on your home computer from the download link provided to you.

Then you need to unzip the VM - Windows 10 (.zip) file which will then be extracted to a virtual hard disk file* VM - Windows 10 (.ova) – Open Virtualisation Format Archive, which you will be using to create the virtual machine. To do this,

Right-click on the downloaded VM – Windows 10.zip file > Open With > The Unarchiver

You may need to accept any terms and conditions if prompted. The Unarchiver program will then extract the contents from the VM – Windows 10.zip file.



Once the virtual hard disk file is extracted you will see a VM – Windows 10.ova file.

< > Downloads	:≡ ≎	
Name	Size	Kind
💗 VM - Windows 10.ova	4.82 GB	Open VArchive
VM - Windows 10.zip	4.76 GB	ZIP archive
VirtualBox-6.1.34-150636-OSX.dmg	125 MB	Disk Image

***What is a virtual hard disk file?** This is a hard disk file that has an operating system and various other software installed already installed. To open and work with such hard disk files you need to have a virtualisation software (such as Oracle Virtual Box). Virtual hard disk files can have different extensions (for example: .vhd, .vdi, .ova etc...)

Creating virtual machine using a virtual hard disk file (.ova)

The step-by-step process of creating a virtual machine using an existing hard disk is given below.

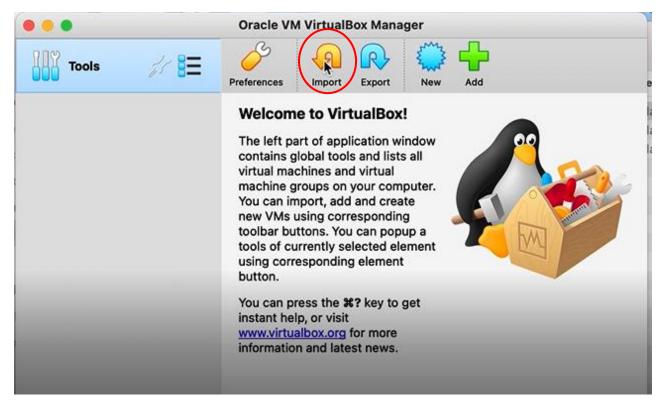
Step 1

On a Mac OS X host, in the **Finder**, double-click on the **VirtualBox** item in the Applications folder. You may want to drag this item onto your Dock.



Step 2

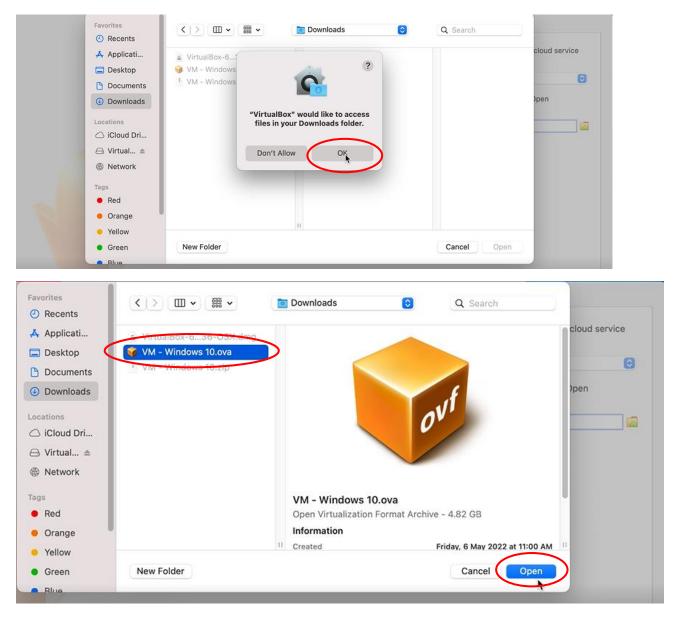
Click on "Import"



Click on the **browse** icon to navigate to where you've stored the virtual hard disk file (.ova) and click on **Open.**

Appliance to import		
Please choose the source to import appliance from. This ca providers to import cloud VM from.	n be a local file system to import OVF archive or one	e of known cloud service
Source: Local File System		0
Please choose a file to import the virtual appliance from. Vir Virtualization Format (OVF). To continue, select the file to im		ved in the Open
File:	I	

If the VirtualBox application asks for permission to access files as shown in the screenshot below, please click on **OK**.



Step 4 Click on Continue

Appliance to import	
Please choose the source to import appliance from. This can be a local file system to import OVF providers to import cloud VM from.	archive or one of known cloud service
Source: Local File System	O
Please choose a file to import the virtual appliance from. VirtualBox currently supports importing Virtualization Format (OVF). To continue, select the file to import below.	appliances saved in the Open
File: //Users/demo/Downloads/VM - Windows 10.ova	
Expert Mode	Go Back Continue Cancel

Step 5 Click on Import

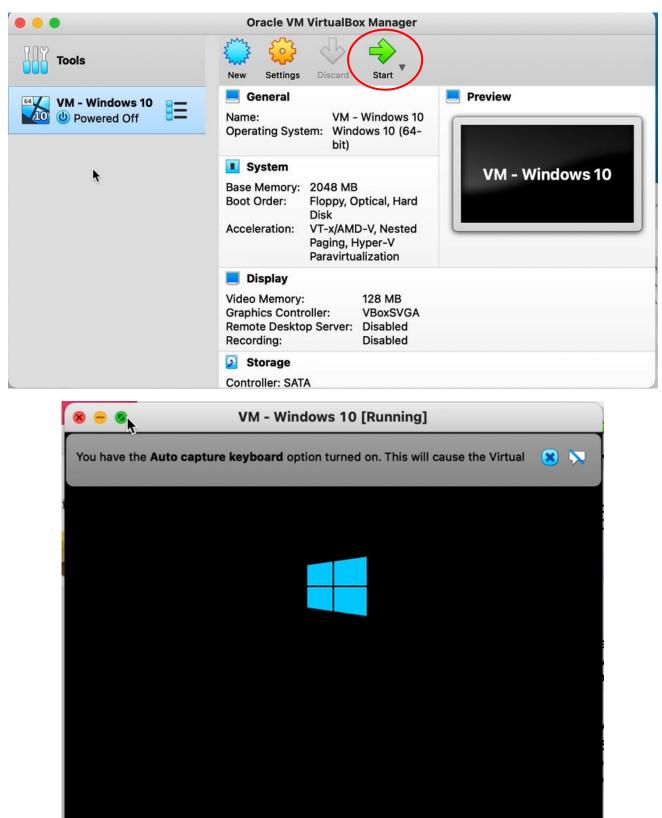
Aj		ained in the appliance and the suggested settings of the imported VirtualBox machines. You can In by double-clicking on the items and disable others using the check boxes below.	
	Virtual System 1		۱ ۲
	🌸 Name	VM - Windows 10	
	Description	Operating System: Windows 10 Education	
	🚼 Guest OS Type	🔀 Windows 10 (64-bit)	
	CPU	1	11
	RAM	2048 MB	
	OVD	0	11
	USB Controller		
	Sound Card	Intel HD Audio	
	Network Adapter	Intel PRO/1000 MT Desktop (82540EM)	
	 Storage Controller (SATA) 	AHCI	
	Virtual Disk Image	VM - Windows 10-disk001.vmdk	
	🚞 Base Folder	/Users/demo/VirtualBox VMs	
	👔 Primary Group	1	
- Andrews			
	Machine Base Folder: 📋 /Users/de	mo/VirtualBox VMs	
	MAC Address Policy: Include only	NAT network adapter MAC addresses	
	Additional Options: 🗹 Import hard	d drives as VDI	
	Appliance is not signed		
		\frown	
		Restore Defaults Go Back CImport Can	cel

You'll see the progress bar that indicates that the virtual machine is being imported. Once this finishes, you'll see a virtual machine (VM) called **Windows10-VM** created on Virtual Box.



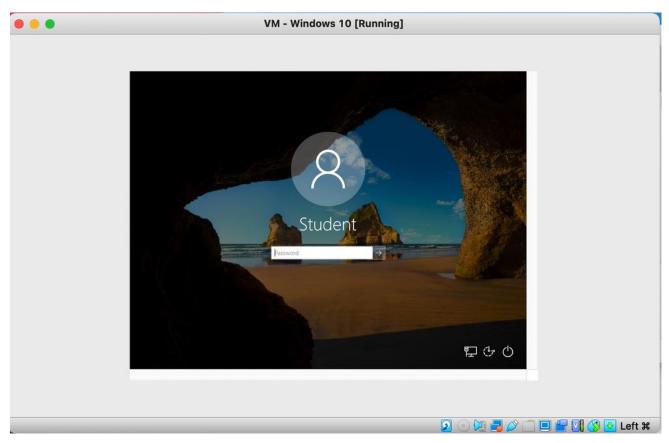
Select the VM – Windows 10 and click on Start

This will start the virtual machine on a new window.

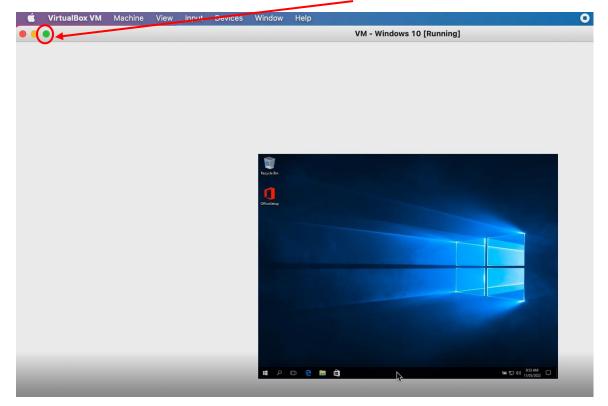


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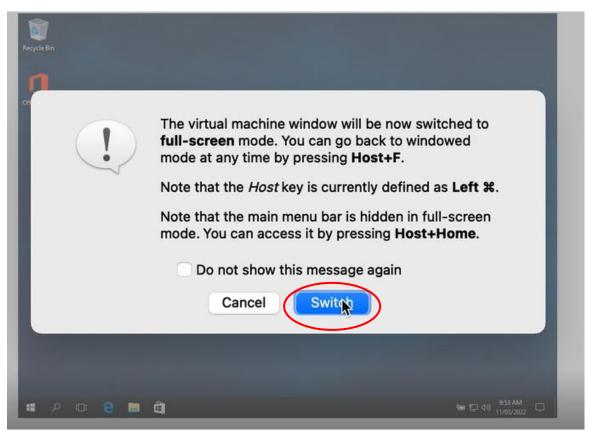
Click on the Window and enter the password to login as **Student**. (Note: The password as **password**).



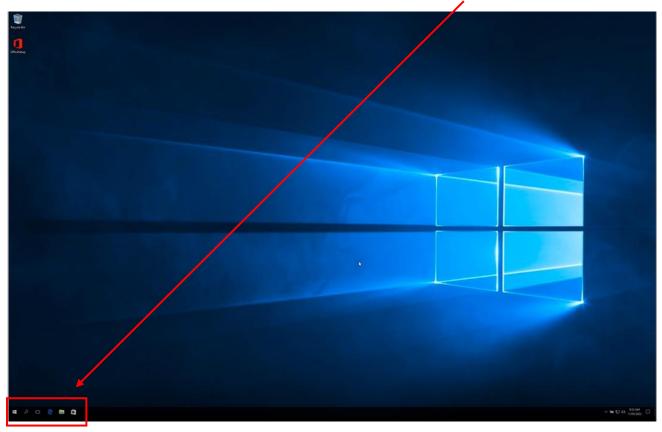
Once you have logged in to the Windows 10 virtual machine you will see the desktop of your Windows 10 VM. You can go to full-screen mode by first, selecting the green icon on the top menu bar.



Then select **Switch** in the dialog box that appears.

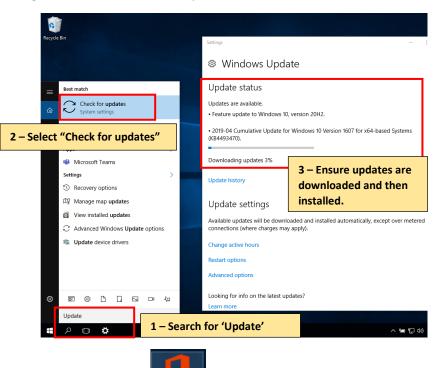


When you are in the full-screen mode, notice the icons on the desktop and **task bar** at the bottom.



Now, do the following to further set up your virtual Windows environment.

1. Check for Windows updates and allow the virtual machine to install the updates and restart as required. Note: This installation may take quite a long time depending on the internet speed. The following screenshot shows the steps (1 to 3).



2. Double-click on the **OfficeSetup** icon on the virtual machine's *Desktop* to install Microsoft Office. You will need to use your Office 365 student credentials once it is installed. Note: This installation may take quite a long time depending on the internet speed.



 Open Microsoft Store . Then, select Downloads and updates. Ensure that the App Installer program is downloaded and installed. Note: This installation may take quite a long time depending on the internet speed.

The following screenshot shows the steps (1 to 5).

=	Best match			Click on the ee dots ()
ណ៍	Microsoft Store Trusted Windows Store app	2 – Select "Microsoft Store"		
	Folders Power BI Desktop Store App	>	More 🗸 🔑 Sear	$- \Box \times$
		Downloads 4 – Select "Dow	nloads and updates"	Downloads and updates
		Downloads and updates		Settings
		You're good to go		Send Feedback
			Microsoft Store have the latest updates.	
		In the download queue (1)		Pause all
		App Installer	Downloading .	— II ×
			'App Installer" successfu and is installed.	lly
<u>ت</u>		10		
	Store 1 – Search	or 'Store'		
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- 4. Use the Microsoft Edge browser to:
 - a. access the LMS to download the necessary dataset files you'll need to work on for learning and assessments.

Congratulations!

Now you are ready to use your Windows 10 virtual machine to continue through the learning activities and the relevant assessment tasks in this module!