

Practical No. 2

Aim: Installation and Configuration of VM Ware / Virtual Box

1. What is in Oracle VM VirtualBox

Oracle VM VirtualBox is cross-platform virtualization software. It allows users to extend their existing computer to run multiple operating systems including Microsoft Windows, Mac OS X, Linux, and Oracle Solaris, at the same time. Designed for IT professionals and developers, Oracle VM VirtualBox is ideal for testing, developing, demonstrating, and deploying solutions across multiple platforms from one machine. Developers use VirtualBox to deliver code faster by running and testing different operating systems on their laptop. IT teams and solution providers use VirtualBox to reduce operational costs and shorten the time needed to securely deploy applications on-premises and to the cloud. Oracle VM VirtualBox runs on Windows, macOS, Linux, and Oracle Solaris systems and is ideal for testing, developing, demonstrating, and deploying solutions across multiple platforms on a single device.

Oracle VM VirtualBox has been designed to take advantage of the innovations introduced in the x86 modern hardware platform, and it is lightweight and easy to install and use. Yet, under the simple exterior lies an extremely fast and powerful virtualization engine. With a well-earned reputation for speed and agility, Oracle VM VirtualBox contains innovative features to deliver tangible benefits: excellent performance; a powerful virtualization system; and a wide range of supported guest operating systems.

2. Oracle VM VirtualBox Features

Designed for use on systems ranging from ultra-books to high-end server class hardware, Oracle VM VirtualBox is lightweight and easy to install and use. Yet, under the simple exterior lies an extremely fast and powerful virtualization engine. With a formidable reputation for speed and agility, Oracle VM VirtualBox contains innovative features to deliver tangible business benefits such as significant performance improvements, a

more powerful virtualization system and a wider range of supported guest operating system platforms.

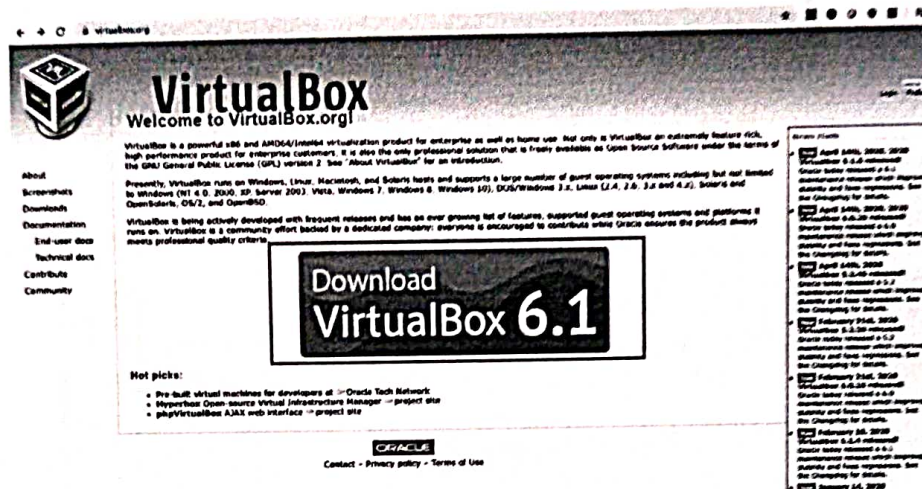
- **Reduces IT cost**
 - Open source, low-overhead, cross-platform desktop virtualization software lowers operational costs for IT teams by reducing the number of required desktop and server configurations.
- **Runs on any desktop**
 - IT teams can simplify development environments by running the same solution on any x86 host operating system (OS) and support a wide range of OS versions on virtual machines (VMs). Supported host operating systems include Windows, Linux, and macOS.
- **Easy to adopt**
 - An easy-to-use graphical user interface (GUI) and a powerful command line interface make it easy for developers to work with multiple operating systems on the same system. Development teams can consolidate workloads using VirtualBox to support massive workloads of up to 32 virtual CPUs.
- **Increase developer productivity**
 - Developers use VirtualBox to deliver code faster by testing applications on different operating systems and versions using the same desktop they use for development, and then automatically deploying their VMs to production environments.
- **Simplify software distributions**
 - Solution providers can scale their business by distributing their applications inside a VirtualBox VM to easily support their customers on any OS and version.

3. How to Install VirtualBox?

i. Download VirtualBox

You can download VirtualBox from the official Oracle VirtualBox website, <https://www.virtualbox.org/>. VirtualBox can be installed in Linux based operating systems such as Ubuntu, CentOS etc., MacOS

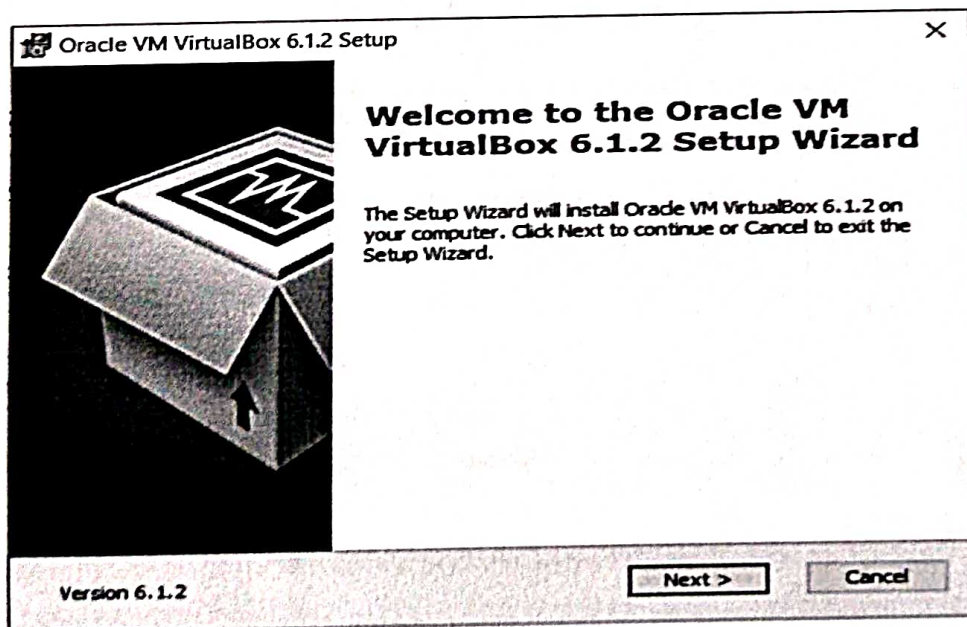
and Windows. Download Windows version from here as I will be using Windows 10 to install VirtualBox.



The file size of VirtualBox installer for Windows is around 101 MB.

ii. Start the Installation process

The file downloaded will have the file name format like VirtualBox-VersionNumber-BuildNumber-Win.exe. Something like this: VirtualBox-6.1.6-137129-Win.exe. Double click on the installer to launch the setup Wizard. Click on Next to continue.

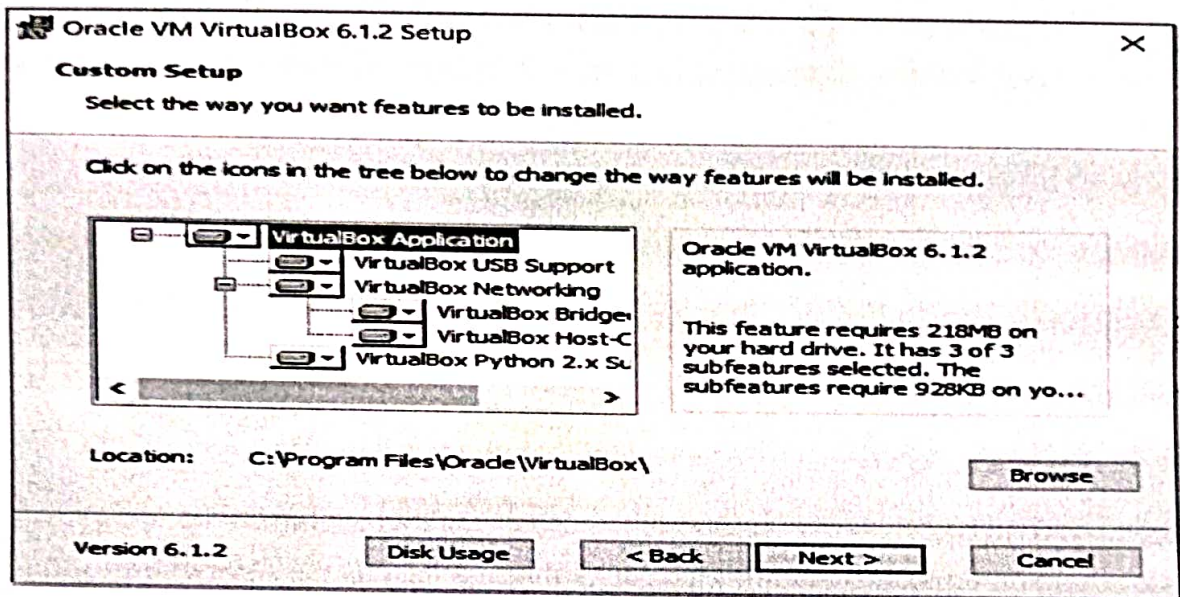


iii. Custom setup dialog box

You will see custom setup dialog box. There is not much to choose from. You can accept the default and click next.

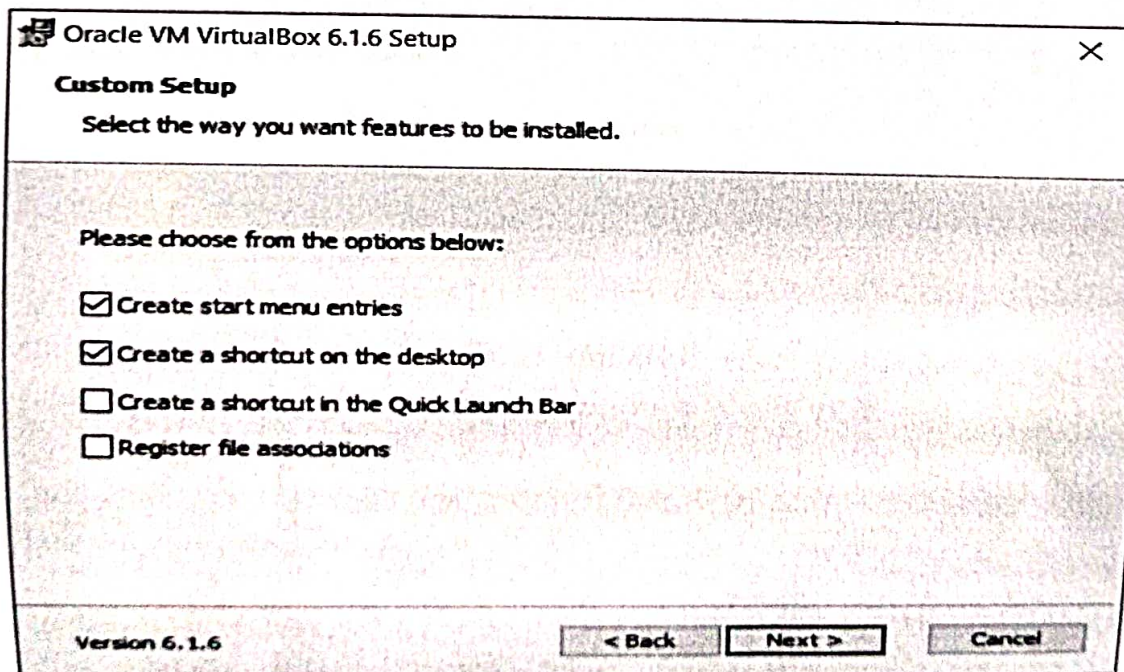
If you wish to change the installation directory, you can change it by clicking on the browse button and selecting the new directory and

clicking OK. Normally I leave it as the default as the whole installation process does not take much space on your hard drive.



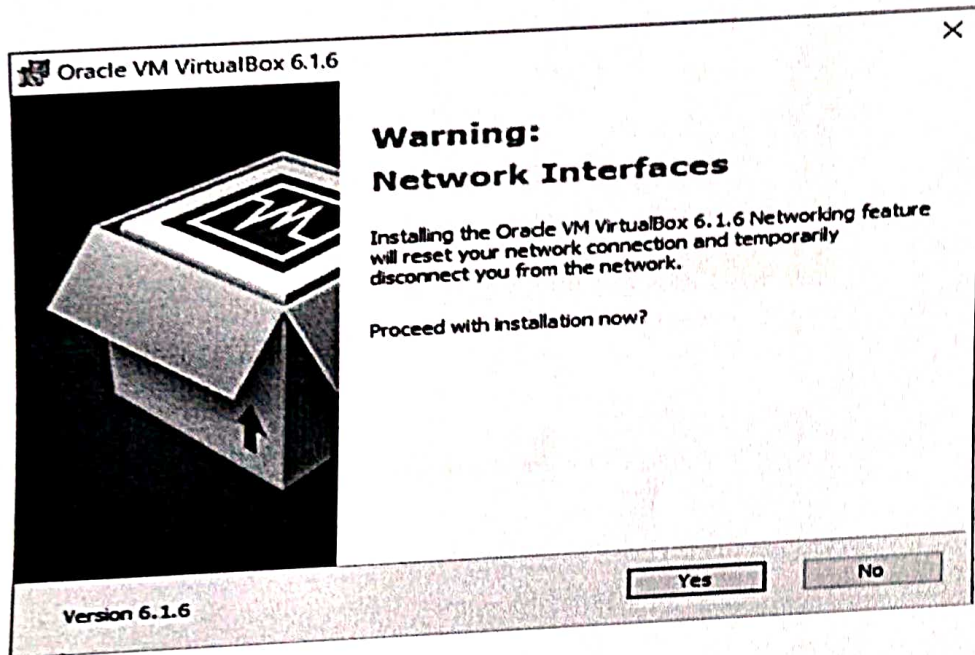
iv. Custom setup dialog box – Feature to install

In this dialog box you can choose which features to install. As you can see, there is not much to choose. You can accept the default and click next. Normally I uncheck Create a shortcut in the quick launch bar and register file association.



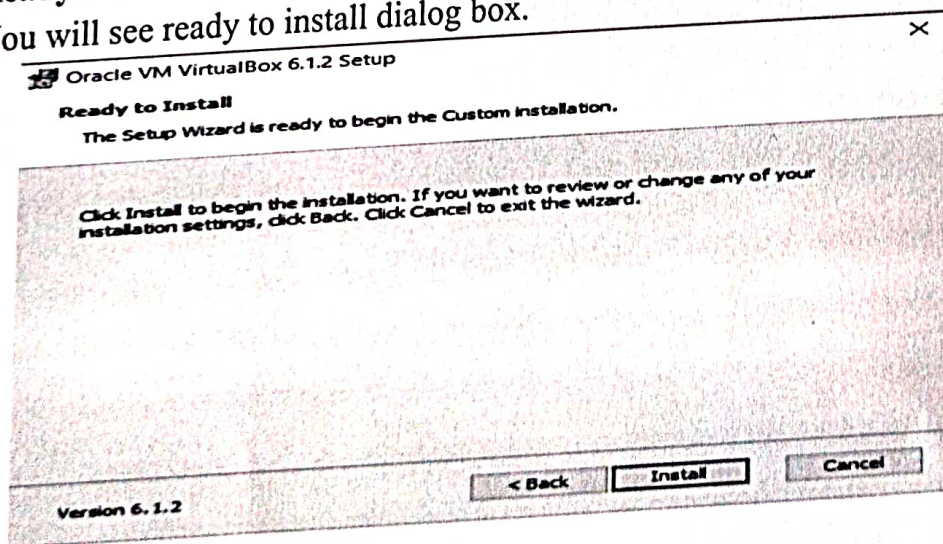
v. Network Interface setup

This dialog box warns you about setting up a Network Interface. what this means that VirtualBox will install network interfaces that will interact with the installed virtual machines and the host operating system which in our case is windows. This will temporarily disconnect you from the internet but that OK, nothing to worry.



vi. Ready to Install

You will see ready to install dialog box.

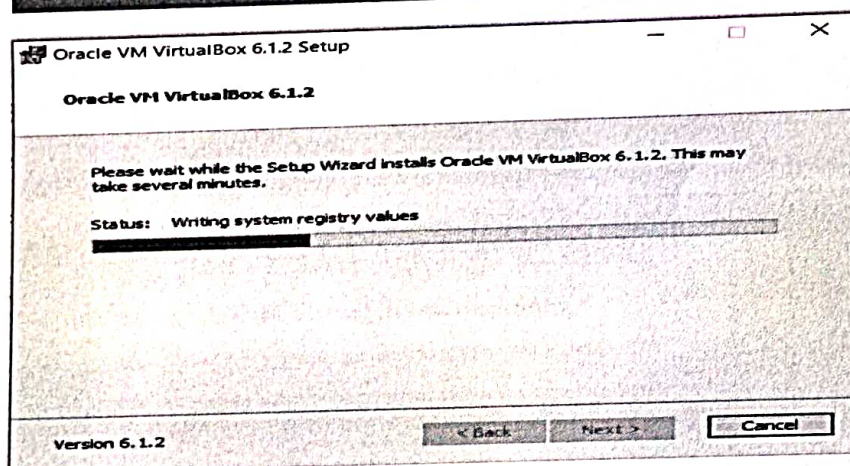
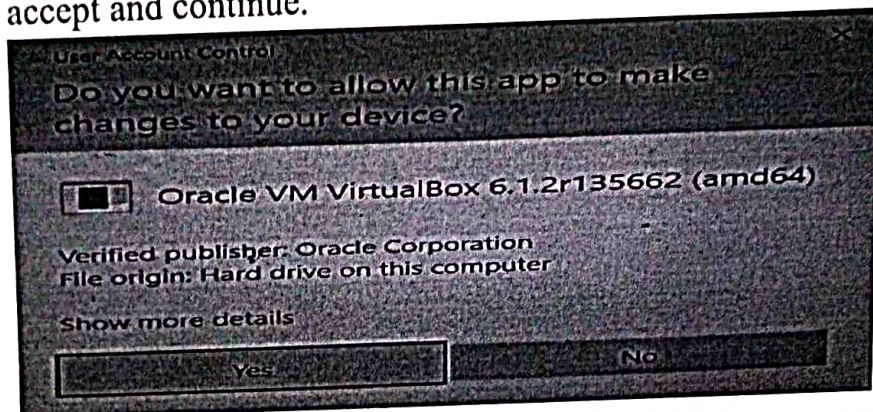


vii. Installation begins

After clicking install, you will mostly probably see User access control confirmation dialog box from Windows OS. This is a security feature in Windows that wants to confirm if the application should be allowed to proceed with the installation process. Click Yes to continue

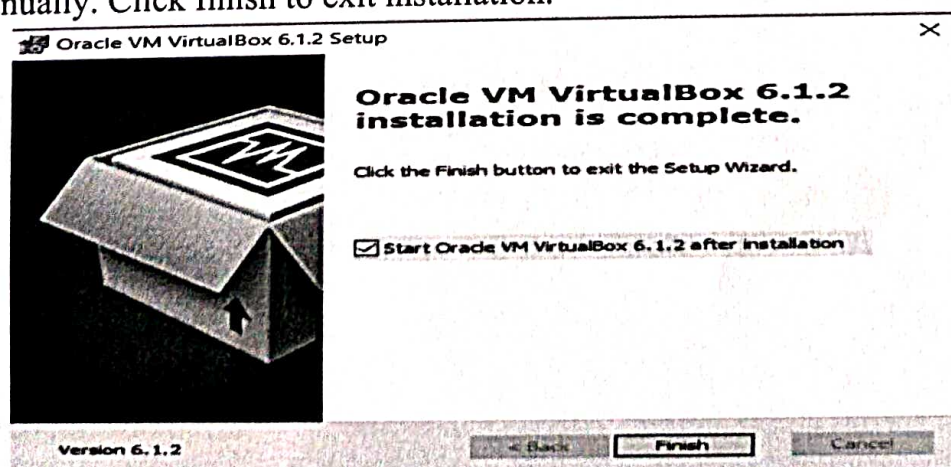
and you will see that the installation process will begin. Wait for the installation to complete.

If you see Windows User Account Control Warning, click yes to accept and continue.



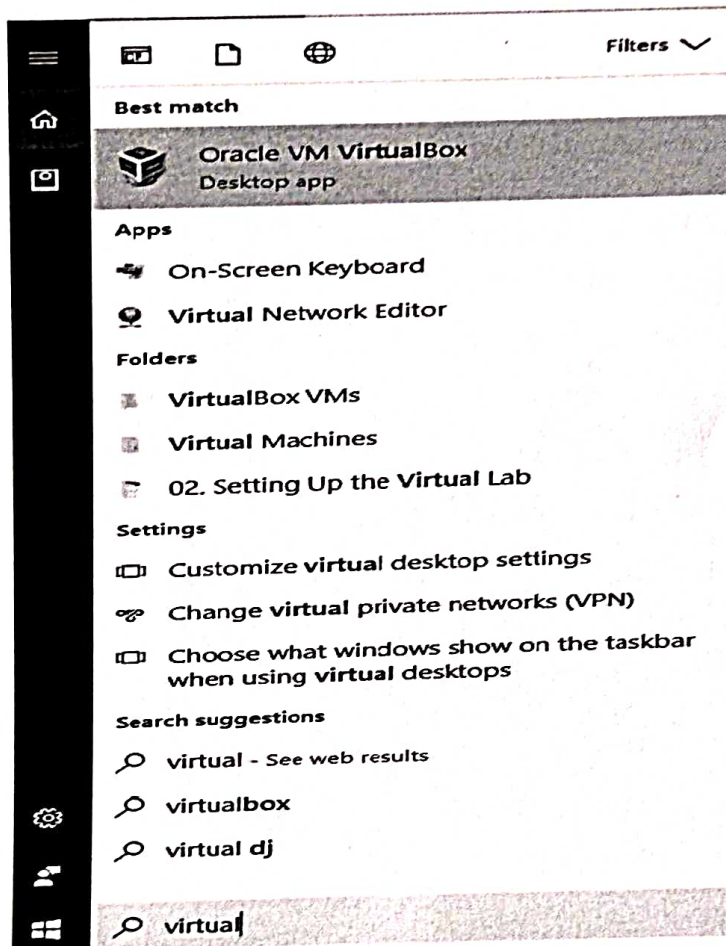
viii. Installation Completes

After the installation completes, you will see installation completion dialog box. Click finish. If you leave Start Oracle VM VirtualBox after installation checked, VirtualBox will launch automatically. If you uncheck it, you will have to launch Virtualbox manually. Click finish to exit installation.

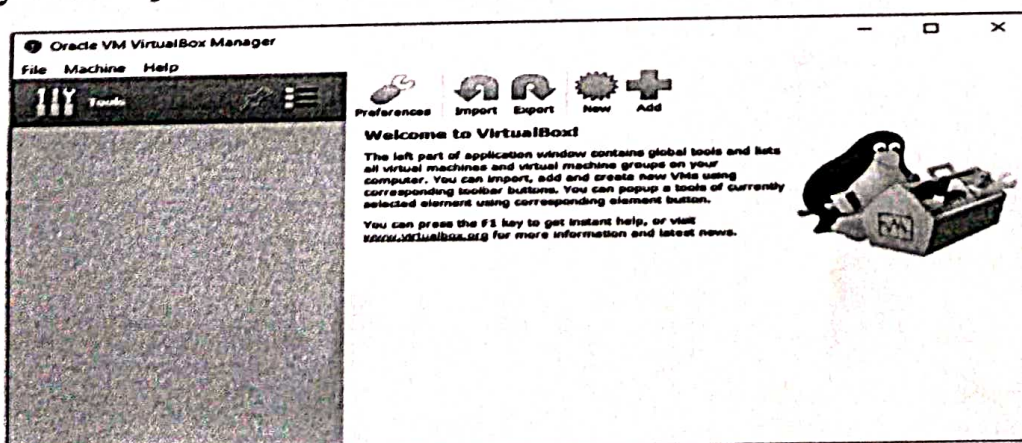


ix. Launch VirtualBox application

Your newly installed VirtualBox is ready to go. You can search for VirtualBox in windows search in taskbar. You will see the VirtualBox Icon on top. Click that to open VirtualBox.



When you will open virtualbox it will look like as shown below:



Conclusion: Hence we have successfully installed and configured the VM Ware / Virtual Box.