

# *ORACLE VM VIRTUAL BOX*

Installation Guide for Windows and Intel-Mac OS

## Table of Contents

Introduction to Virtual Box and Virtual Machine.....	2
Host OS Requirements for Virtual Box .....	2
Installation of Virtual Box for Windows OS .....	3
Installation of Virtual Box for MacOS .....	4
Additional Resources and Troubleshooting for Virtual Box.....	5

## Introduction to Virtual Box and Virtual Machine

Virtual Box is a cross-platform application developed by Oracle which enables you to create Virtual Machines (VMs). The VM generates a guest operating system (such as Linux) derived from a host operating system (The host operating system is the primary and foundational operating system that runs directly on the physical hardware of a computer.). Therefore, sufficient RAM, processors, and memory in the host operating system are essential for smooth running of VMs.

**Note:** The VM image file (.vdi) contains all the software installed for the course.

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### Host OS Requirements for Virtual Box

- RAM requirement: 8GB (preferably 12GB)
- Processor requirement: 4 processors (preferably 8)
- Hard disk space: 200GB
- Admin rights to the computer.

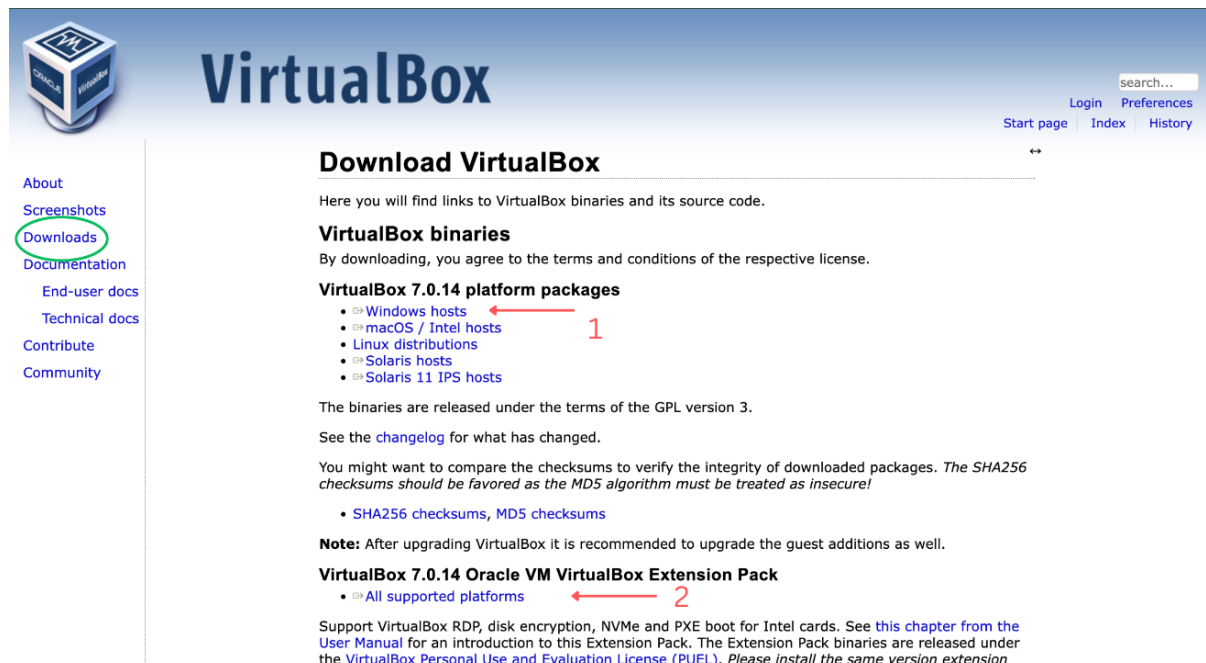
**Note:** Please be aware that Virtual Box is currently incompatible with M1/M2/M3 chips on MacBook. It is exclusively designed for use on Intel-based MacBooks. The current version in use is Virtual Box 7.0.

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# Installation of Virtual Box for Windows OS

## 1. Download VirtualBox:

Navigate to the official VirtualBox website (<https://www.virtualbox.org/>) and go to the "Downloads" section. Choose the version that matches your Windows operating system (32-bit or 64-bit).



## 2. Download Extension Pack (Optional):

If needed, download the VirtualBox Extension Pack from the same "Downloads" section. This pack provides additional functionalities like USB 2.0 and 3.0 support, VirtualBox Remote Desktop Protocol (VRDP), and more.

## 3. Run the Installer:

Locate the downloaded VirtualBox installer file (.exe) and double-click to run it. Follow the on-screen instructions provided by the installer. Click "Next" to proceed through the setup wizard. You may customize installation options if desired.

## 4. Install Extension Pack (Optional):

If you downloaded the Extension Pack, double-click on the file (e.g., Oracle\_VM\_VirtualBox\_Extension\_Pack-6.0.14-133895.vbox-extpack) to install it. This can be done after VirtualBox installation.

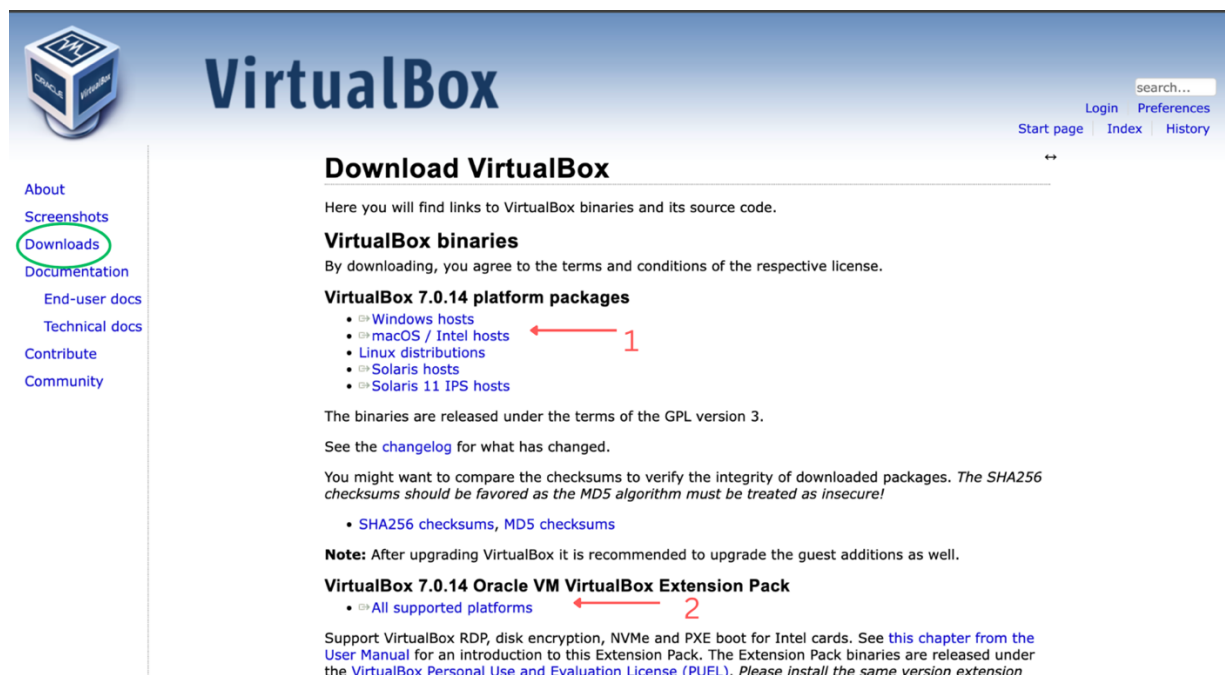
## 5. Complete the Installation:

Once the installation is complete, click "Finish" to exit the installer.

# Installation of Virtual Box for MacOS

## 1. Download VirtualBox:

Navigate to the official VirtualBox website (<https://www.virtualbox.org/>) and go to the "Downloads" section. Choose the version compatible with macOS.



## 2. Download Extension Pack (Optional):

If needed, download the VirtualBox Extension Pack from the same "Downloads" section. This pack provides additional functionalities like USB 2.0 and 3.0 support, VirtualBox Remote Desktop Protocol (VRDP), and more.

## 3. Run the Installer:

Locate the downloaded VirtualBox installer file (.dmg) and double-click to open it. Follow the on-screen instructions to install VirtualBox on your macOS. Drag the VirtualBox icon to the Applications folder.

## 4. Install Extension Pack (Optional):

If you downloaded the Extension Pack, double-click on the file (e.g., Oracle\_VM\_VirtualBox\_Extension\_Pack-6.0.14-133895.vbox-extpack) to install it. This can be done after VirtualBox installation.

## 5. Complete the Installation:

Once installed, open VirtualBox from Applications folder. The first time you run it, macOS may ask for permission to run the application. Click "Open" to proceed.

## Additional Resources and Troubleshooting for Virtual Box

- Virtual Box Documentation: <https://www.virtualbox.org/wiki/Documentation>
  - Virtual Box Manual: <https://www.virtualbox.org/manual/ch01.html>
  - Virtual Box Forum: <https://forums.virtualbox.org/index.php> (helpful for finding similar problem queries and solutions)
  - Ubuntu Documentation: <https://help.ubuntu.com/>
  - Ubuntu Community Support: <https://ubuntu.com/support/community-support>
  - Stack overflow: <https://stackoverflow.com/> (Public Q&A platform for debugging)
  - Bioinformatics (BioStars) Forum: <https://www.biostars.org/t/Forum/> (General Bioinformatics queries)
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