Experiment No. 6

Title: Installation and Configuration of Virtual Machine with Guest OS

Objective:

To set up and configure a virtual machine (VM) with a guest operating system (OS) on a macOS environment using VirtualBox or VMware Fusion.

Tools used:

- VirtualBox or VMware Fusion

- macOS

Prerequisite:

- Downloaded VirtualBox or VMware Fusion installer

- Knowledge of the guest OS ISO file to be installed

Theory:

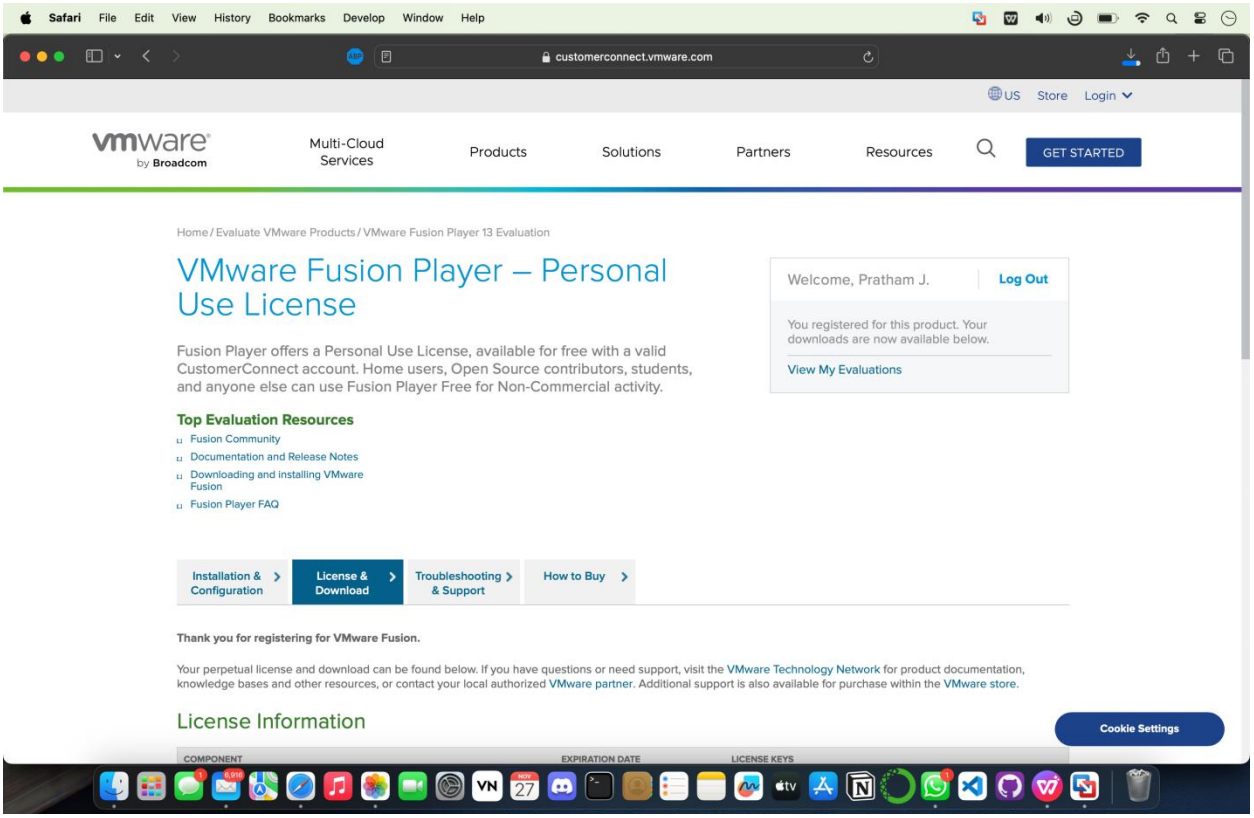
Virtual machines enable the creation of an isolated environment within an existing operating system. This environment functions like a physical computer and allows users to install and run different operating systems simultaneously.

Steps to Install and Configure a VM with Guest OS:

Step 1: Download and Install VirtualBox or VMware Fusion

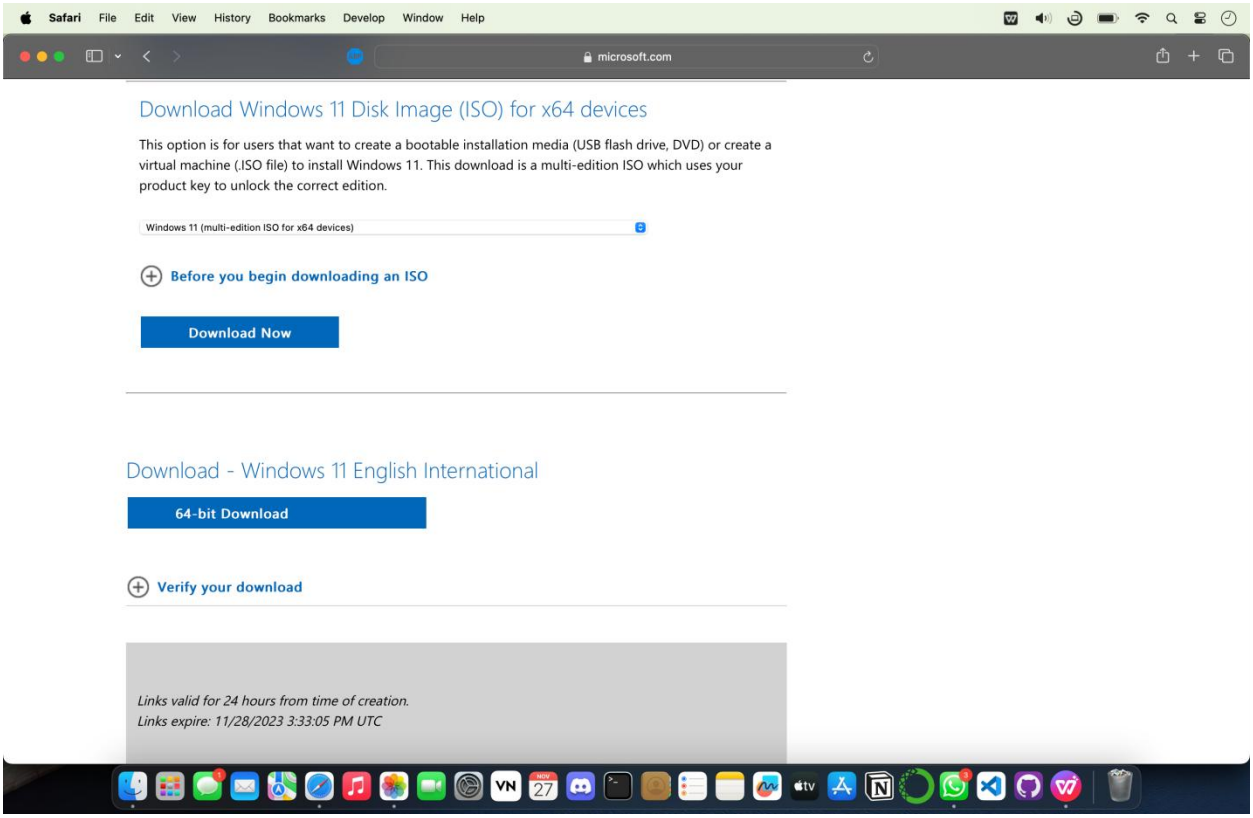
- Visit the respective websites for VirtualBox or VMware Fusion and download the macOS version.

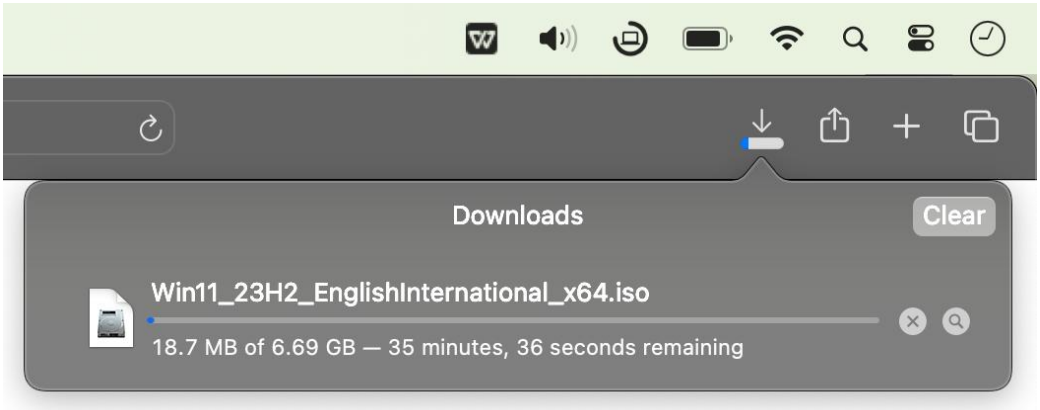
- Double-click the installer and follow the on-screen instructions to install the software.



Step 2: Obtain Guest OS ISO

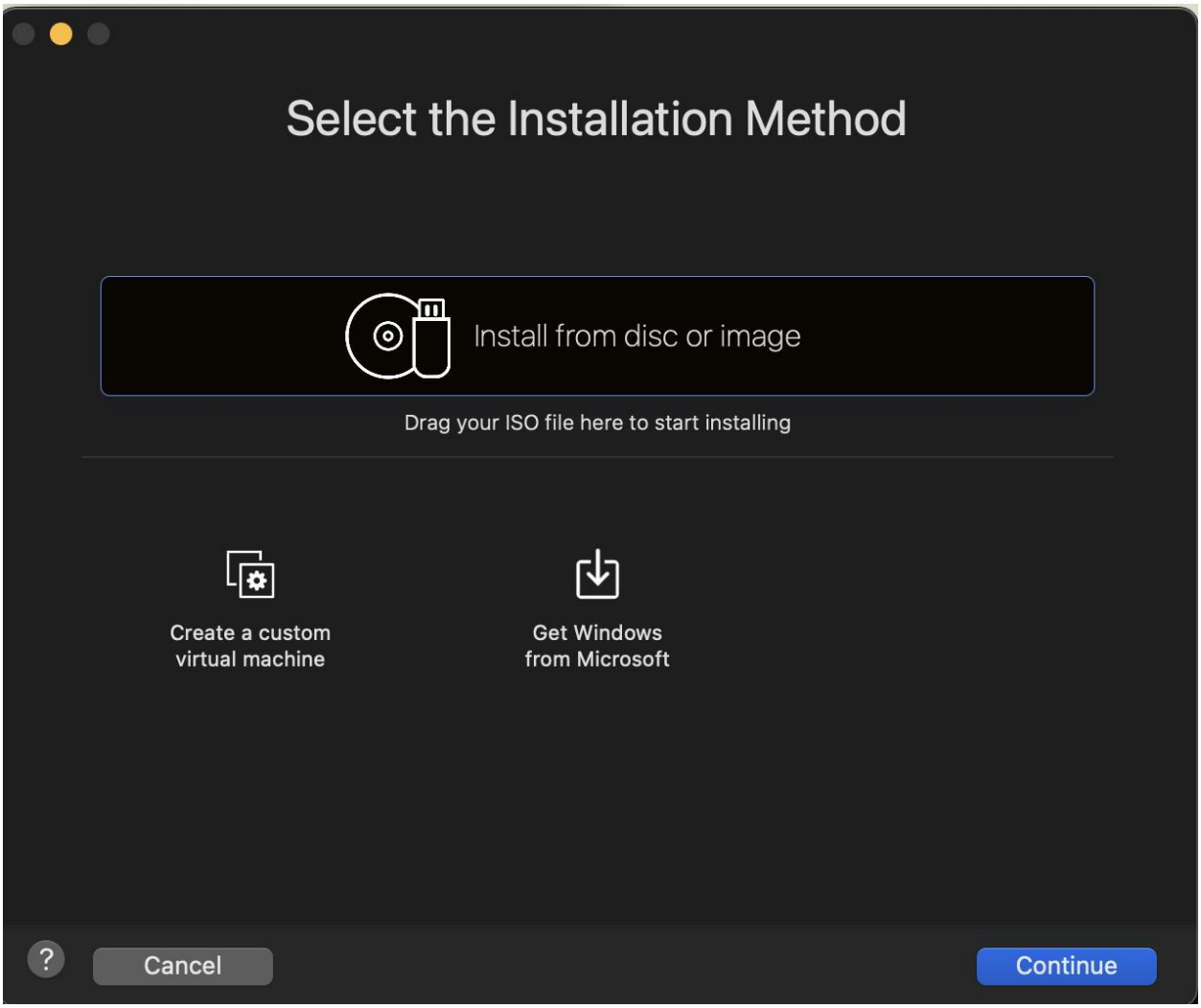
- Download the ISO file for the guest OS you intend to install on the VM. we will install windows 11 on macos, get ISO file from https://www.microsoft.com/software-download/windows11

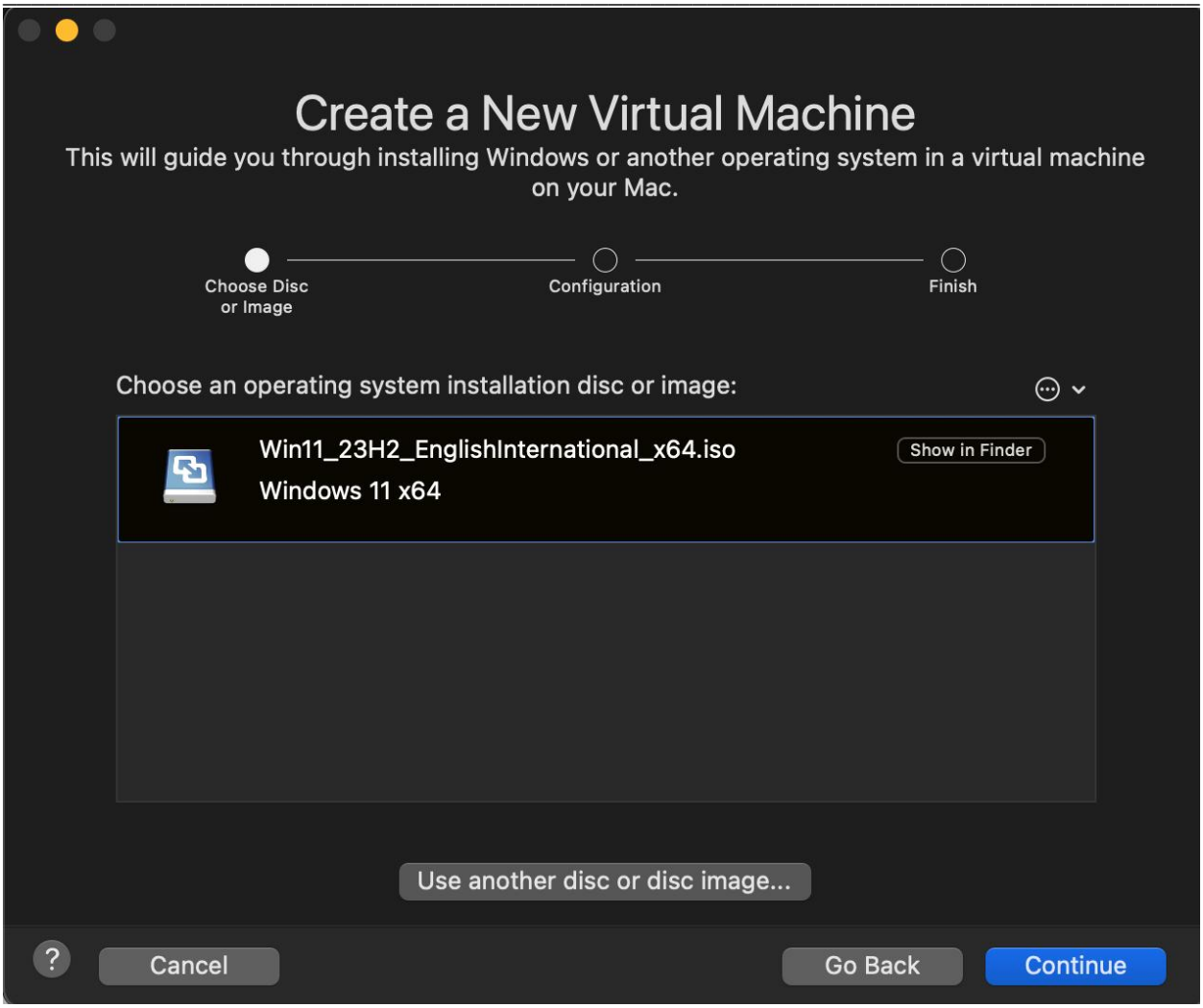




Step 3: Create a New VM

- Open VirtualBox or VMware Fusion.



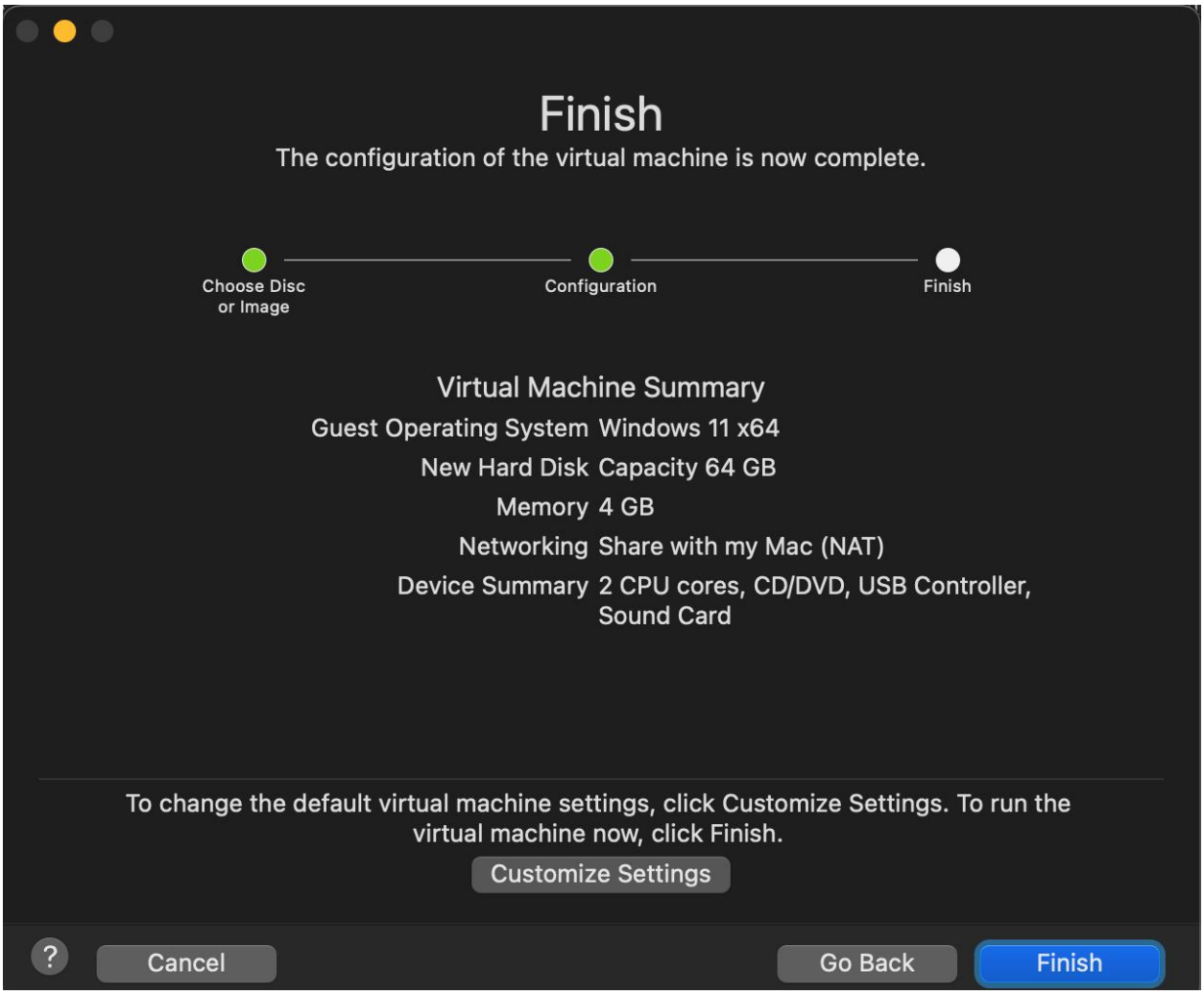


- Create a new virtual machine using the software's interface.

  - Name the VM.

- Select the type and version of the guest OS.

- Allocate memory (RAM) and storage for the VM.



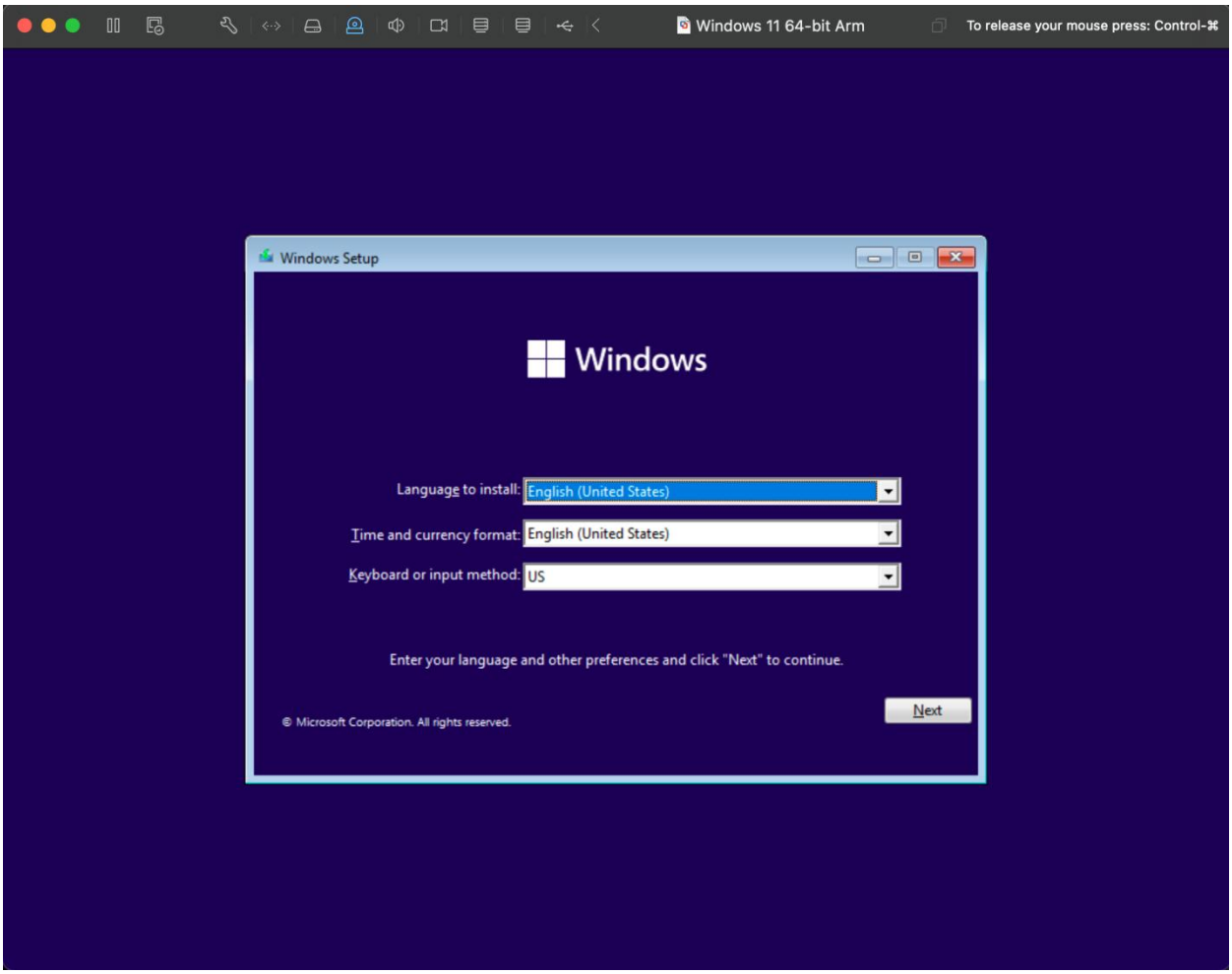
Step 4: Configure VM Settings

- Adjust settings like network configurations, display, and additional hardware settings as required.

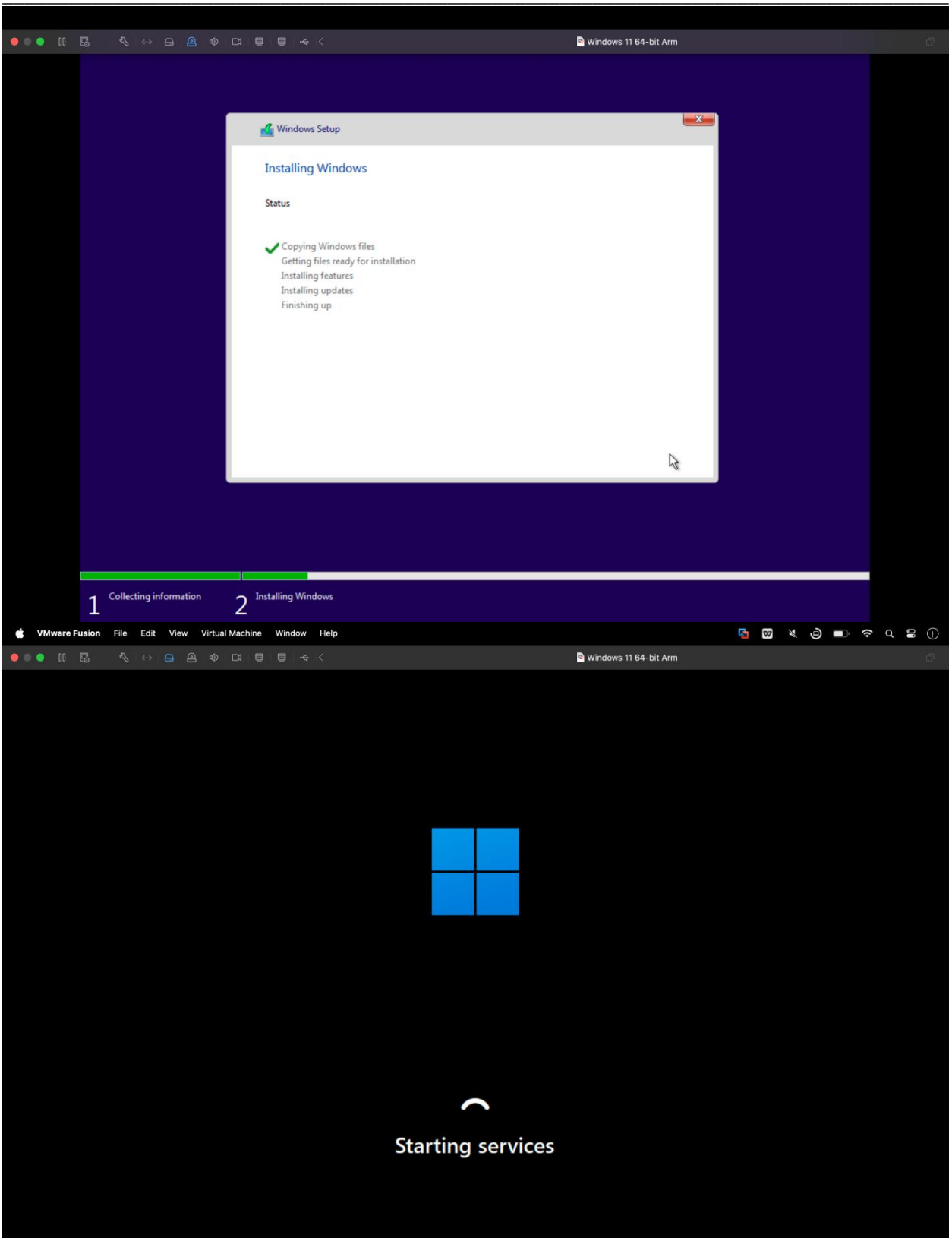
- Attach the downloaded guest OS ISO file to the virtual optical drive.

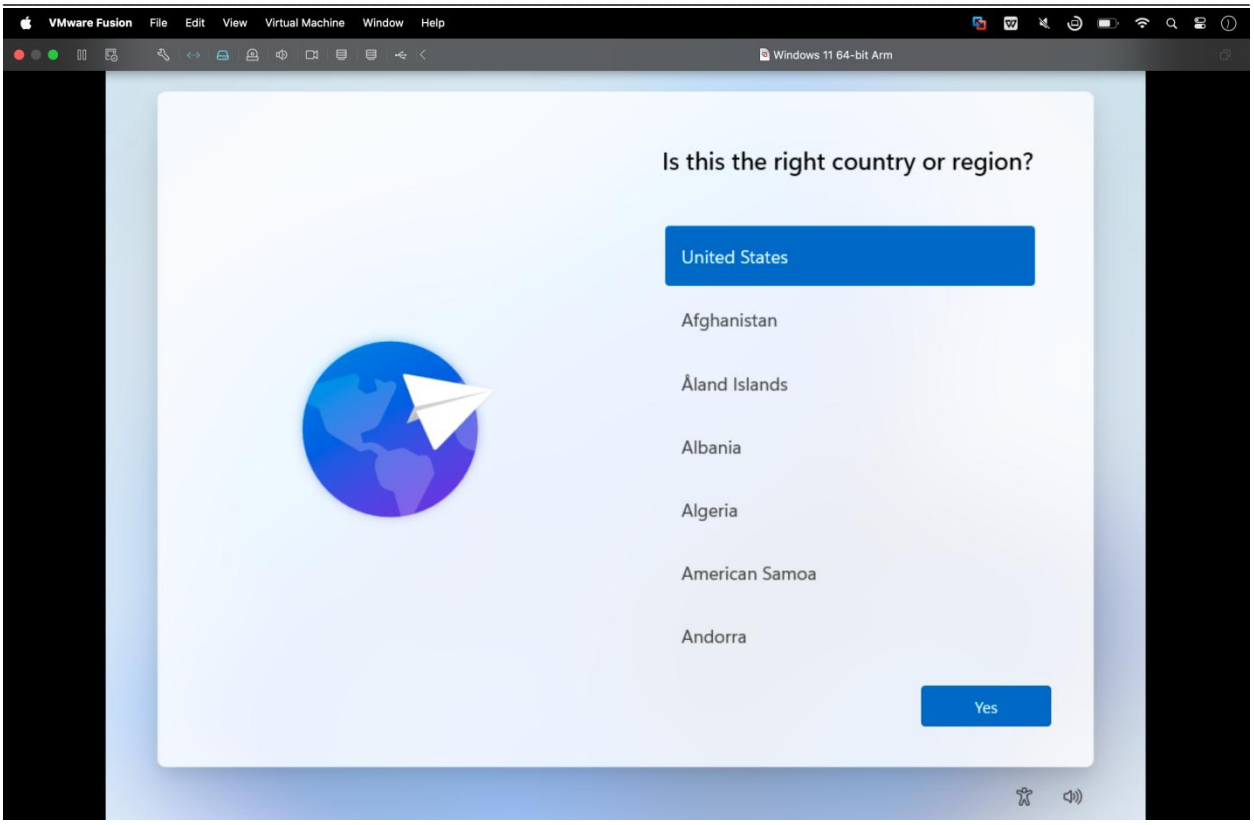
Step 5: Install Guest OS

- Start the VM and boot from the attached ISO file.

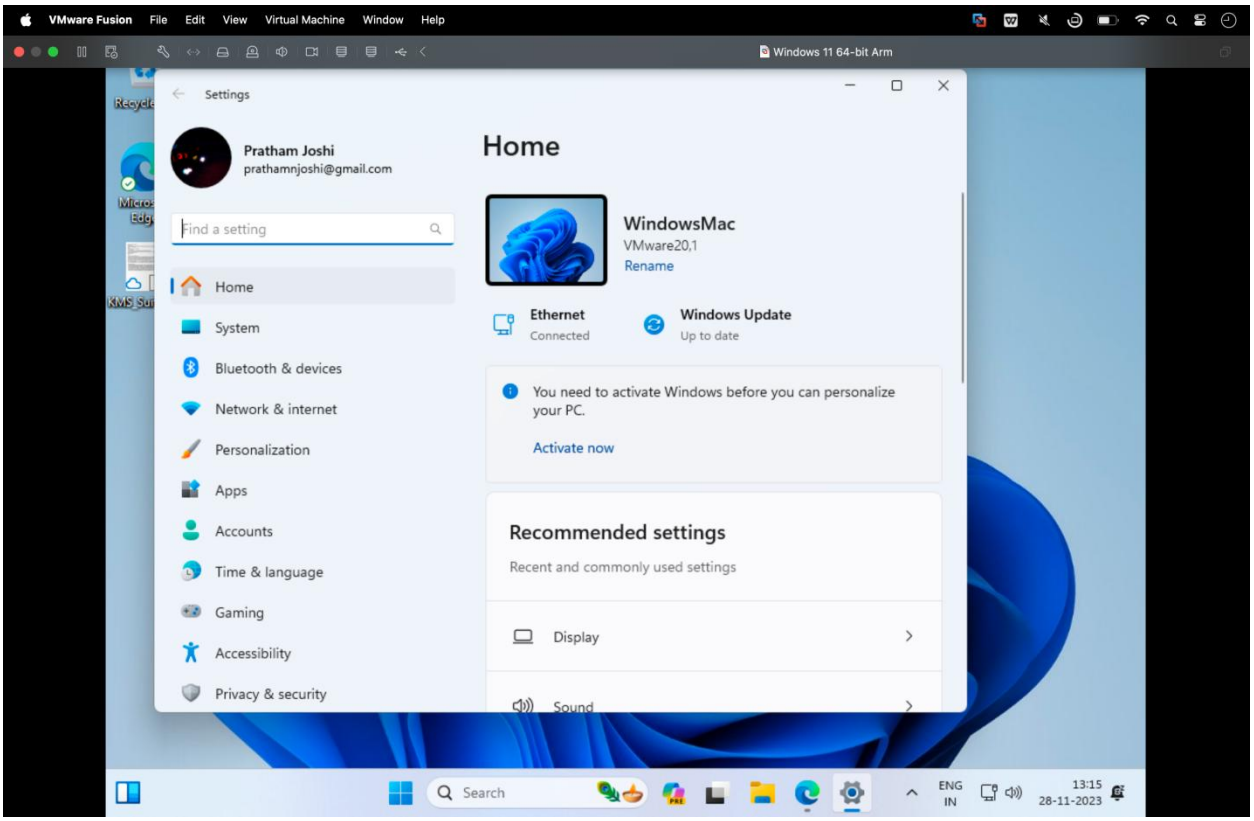


- Follow the installation prompts to install the guest OS within the VM.

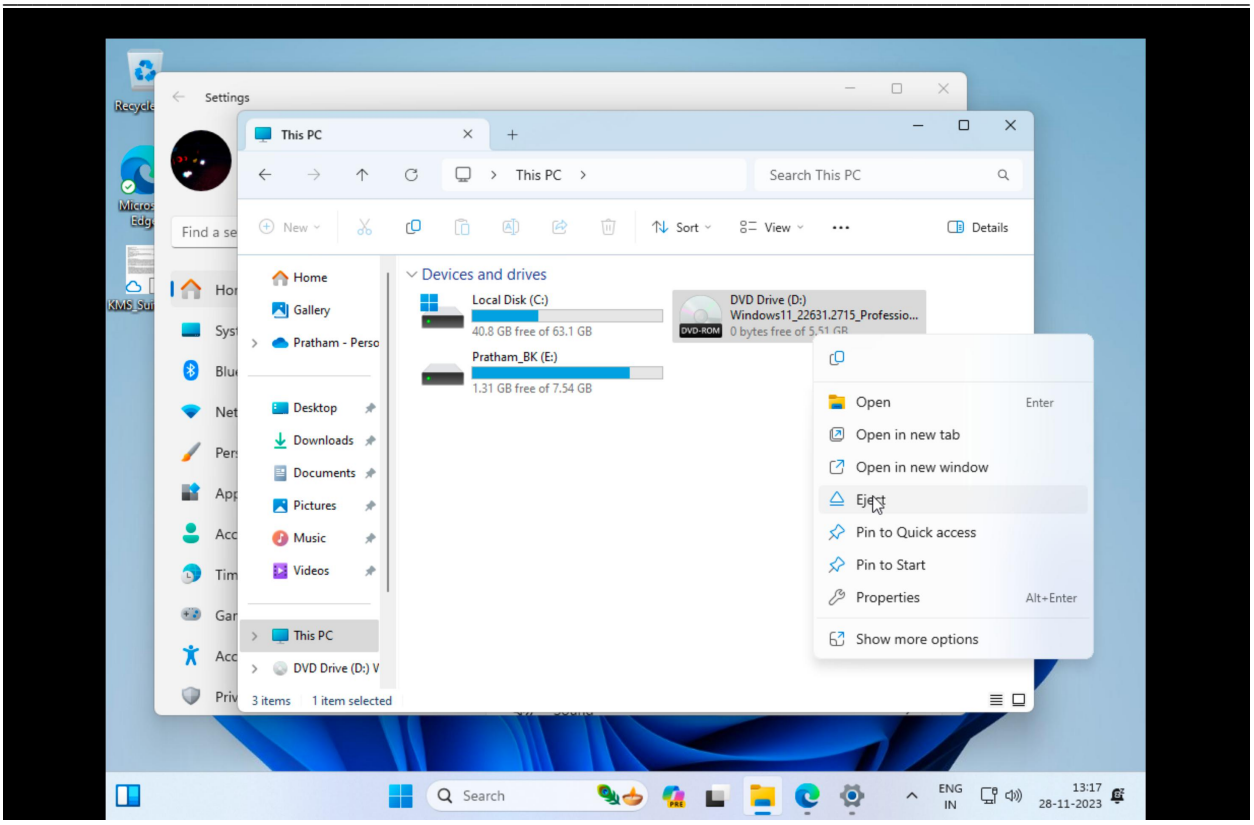

Windows 11 64-bit Arm
Windows Setup
Installing Windows
Status
Copying Windows files
Getting files ready for installation
Installing features
Installing updates
Finishing up
1 Collecting information
2 Installing Windows
VMware Fusion File Edit View Virtual Machine Window Help
Windows 11 64-bit Arm
Starting services


VMware Fusion File Edit View Virtual Machine Window Help
Windows 11 64-bit Arm
Is this the right country or region?
United States
Afghanistan
Åland Islands
Albania
Algeria
American Samoa
Andorra
Yes

Step 6: Complete Installation



- Eject the ISO file from the virtual optical drive after the guest OS installation is complete.



- Restart the VM and configure any additional settings within the guest OS.

Conclusion:

Successfully set up and configured a virtual machine with a guest operating system on a macOS environment using VirtualBox or VMware Fusion. This experiment illustrated the process of creating a virtual environment and installing a guest OS, allowing for testing and running different operating systems on a single machine.