Project Report: Installation of Windows in Oracle Virtual Box

Table of Contents

1. Project Overview

This project focuses on the installation of the Windows operating system within Oracle Virtual Box, a virtualization platform that enables the creation of isolated environments for testing and development. Windows, developed by Microsoft, is a versatile operating system used for various applications, including productivity and software testing. The purpose of this project is to document a clear, repeatable process for setting up a Windows virtual machine (VM) in Virtual Box, providing a controlled environment for experimentation and learning.

2. OBJECTIVES

The primary objectives of this project are:

- To successfully install Oracle Virtual Box on a host machine.
- To configure a virtual machine tailored for Windows.
- To perform a guided installation of Windows using an ISO file.
- To verify the functionality of the installed Windows system.
- To document the process with visual aids for clarity.

3. PREREQUISITES

To achieve the project objectives, the following are required:

- A host machine with sufficient resources (minimum 8 GB RAM, 50 GB free disk space).
- Oracle Virtual Box installed from oracle.com.
- A Windows ISO file (e.g., Windows 10 or 11) downloaded from microsoft.com.
- Basic knowledge of virtualization and operating system installation.

4. Methodology

4.1 Setting up Oracle Virtual Box

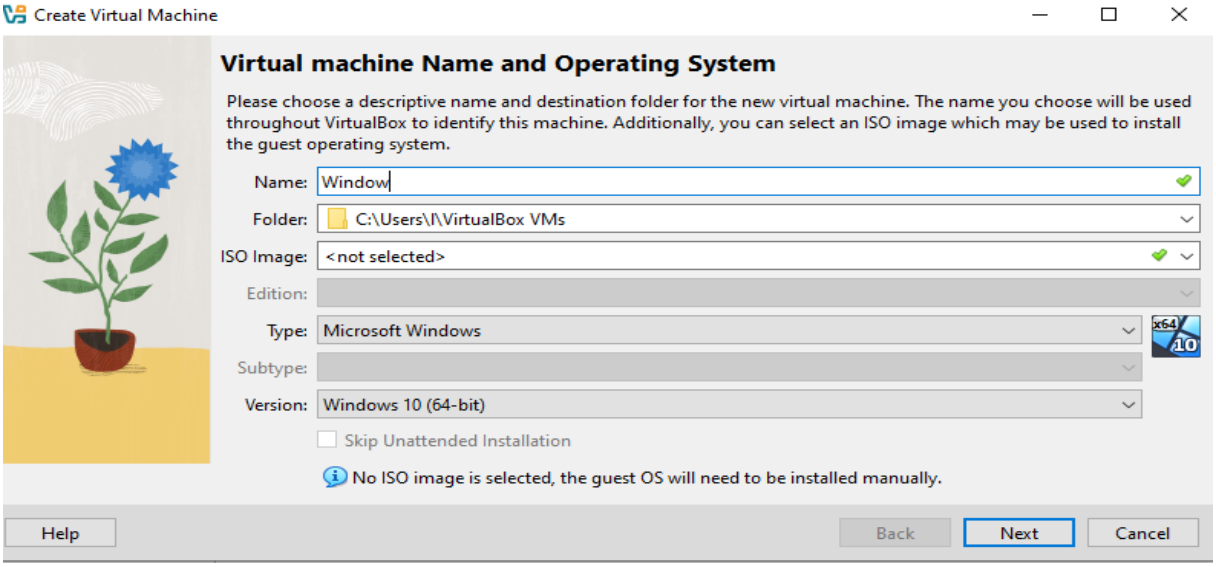
Download and Install Virtual Box

- Download the Virtual Box installer from oracle.com.
- Follow the installation wizard to complete the setup process.

[Image Placeholder: Virtual Box download page or installation wizard]

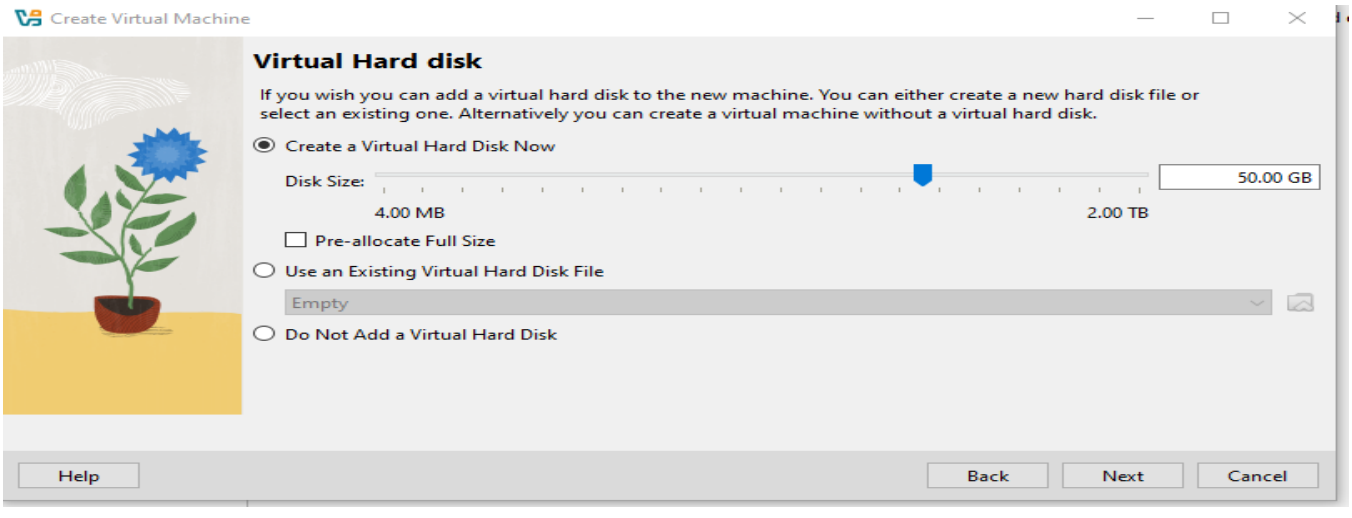
Create a New Virtual Machine

- Open Virtual Box and click **New**.
- Set the VM name to "Windows".
- Select **Type**: Microsoft Windows and **Version**: Windows 10 (64-bit) or the desired version.
- Allocate **4 GB RAM** (8 GB recommended) and **2 CPU cores**.



CONFIGURE VIRTUAL HARD DISK

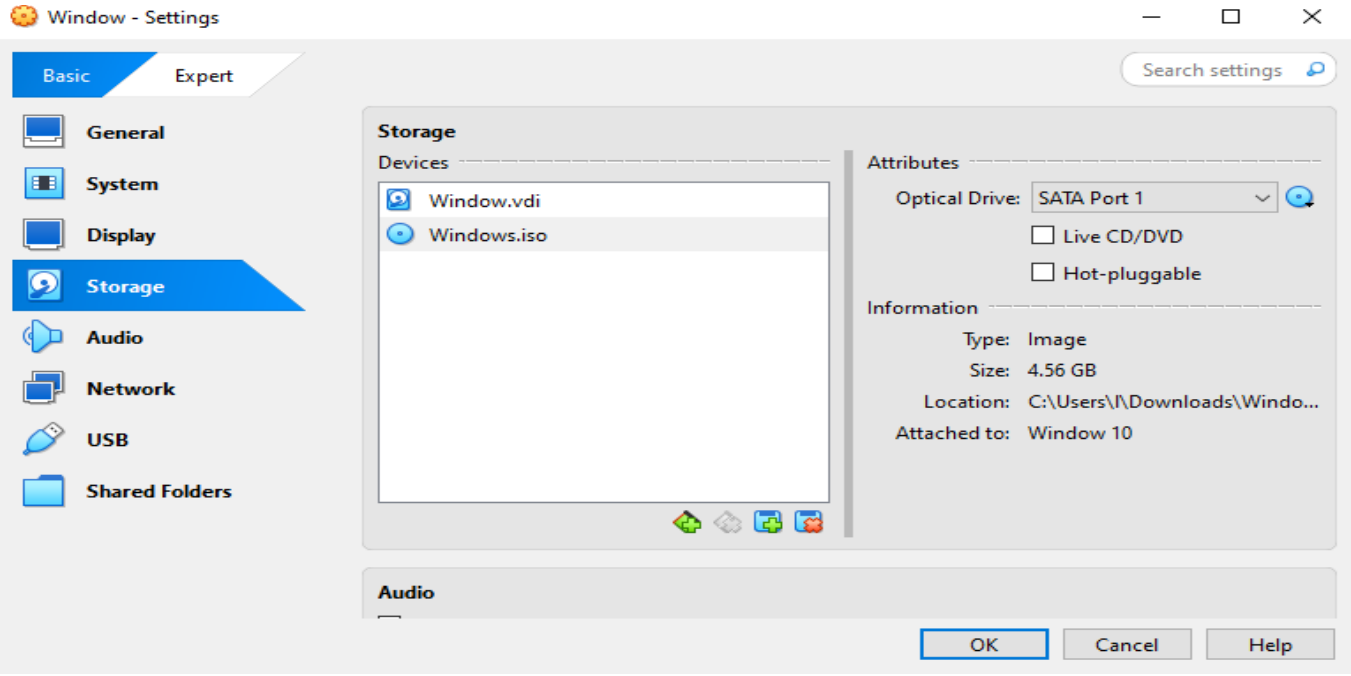
- Choose **Create a virtual hard disk now**.
- Select **VDI (Virtual Box Disk Image)**.
- Allocate **50 GB** with dynamic allocation for efficient storage use.



4.2 INSTALLING WINDOWS

Attach Windows ISO

- Navigate to **Settings > Storage** in Virtual Box.
- Under **Controller: IDE**, attach the Windows ISO file.

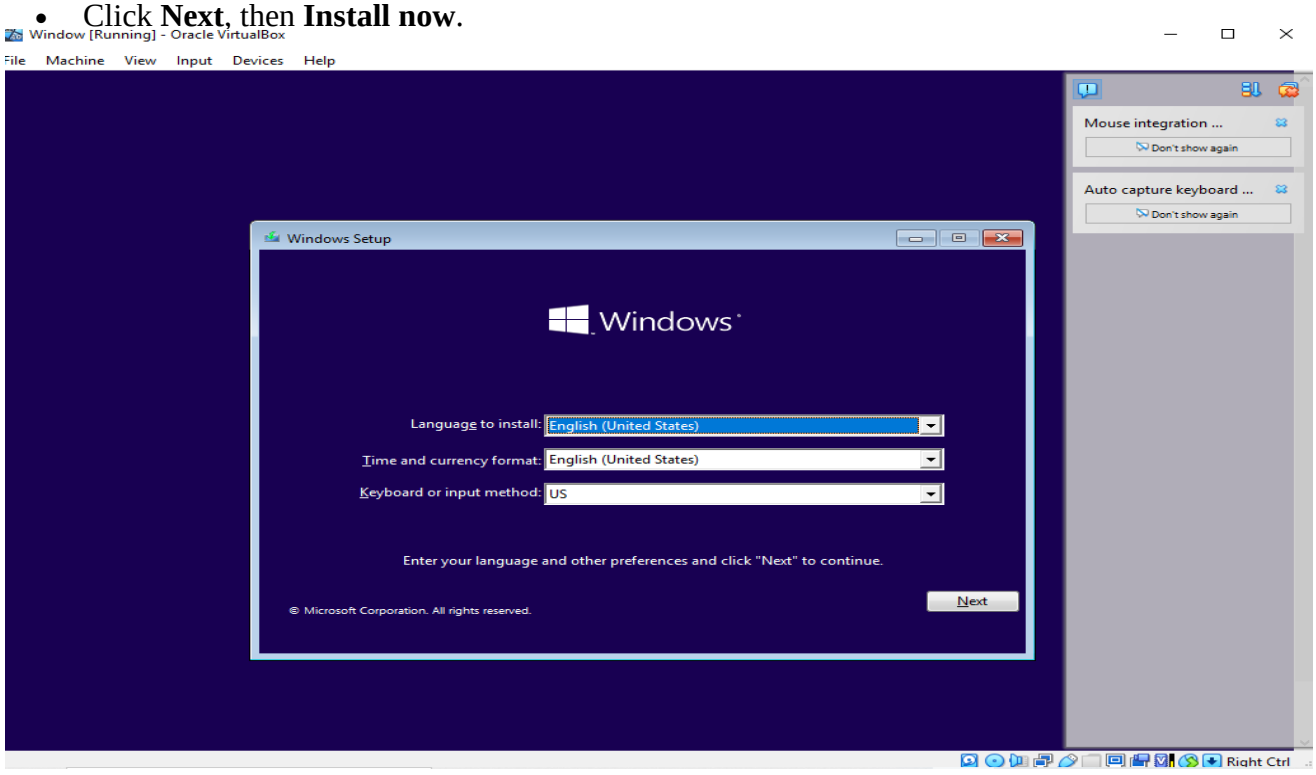


Windows Installation Procedure

Boot the virtual machine to start the installation. The Windows Setup screen will appear, and the following steps should be followed:

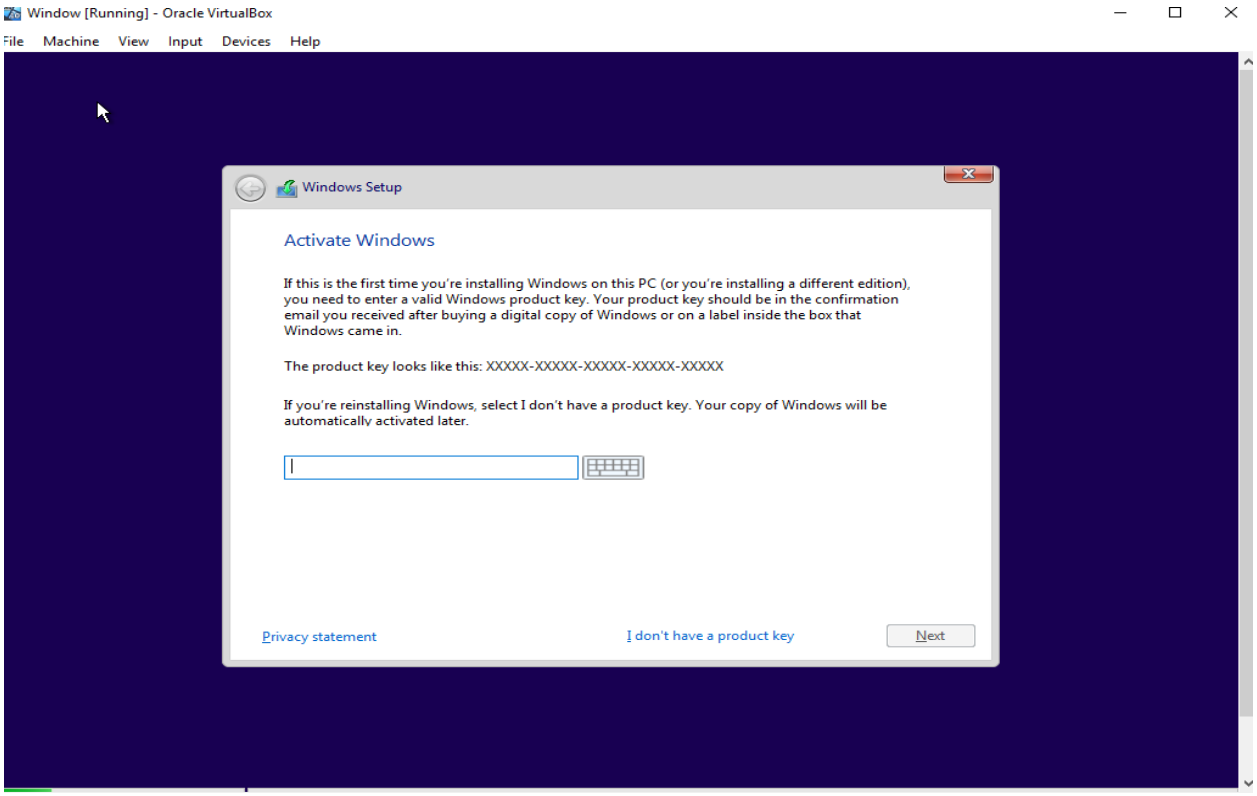
Language and Regional Settings

- Select the preferred **language**, **time and currency format**, and **keyboard layout**.
- Click **Next**, then **Install now**.



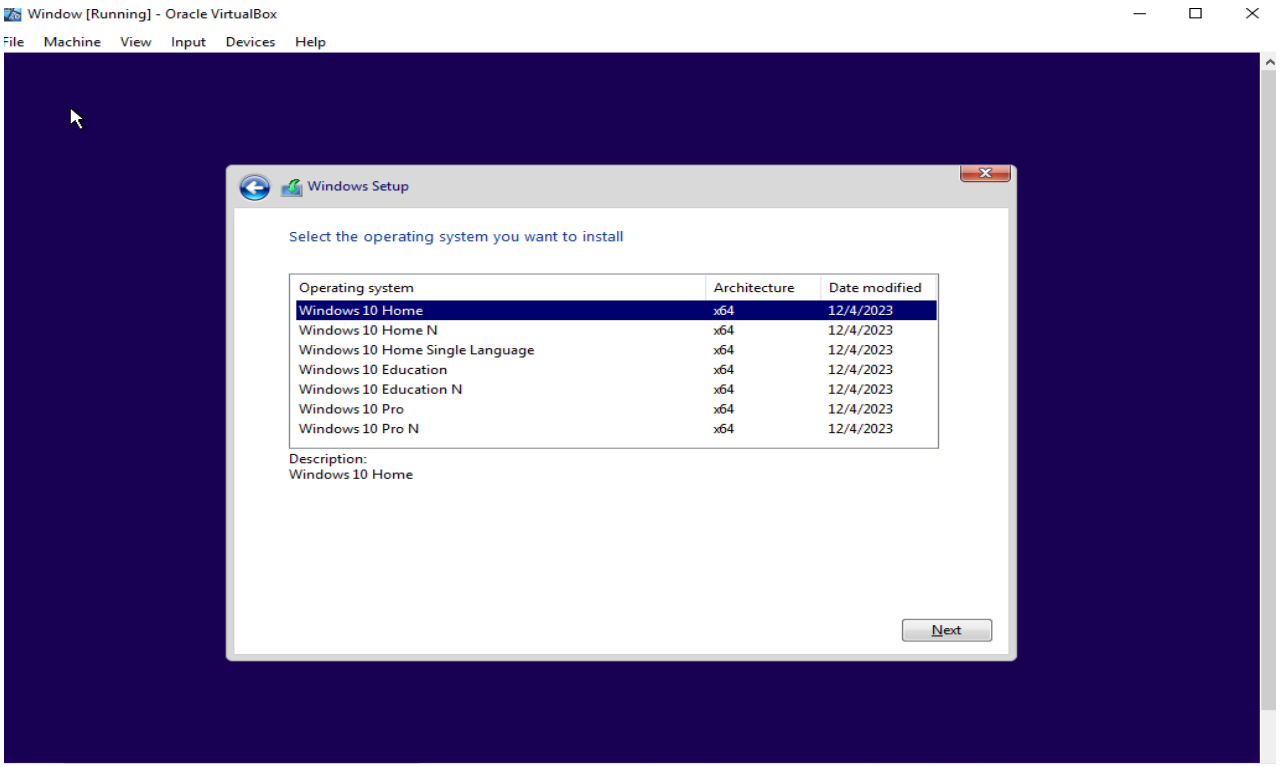
Product Key

- Enter a valid Windows product key or select **I don't have a product key** to proceed.
- Click **Next**.



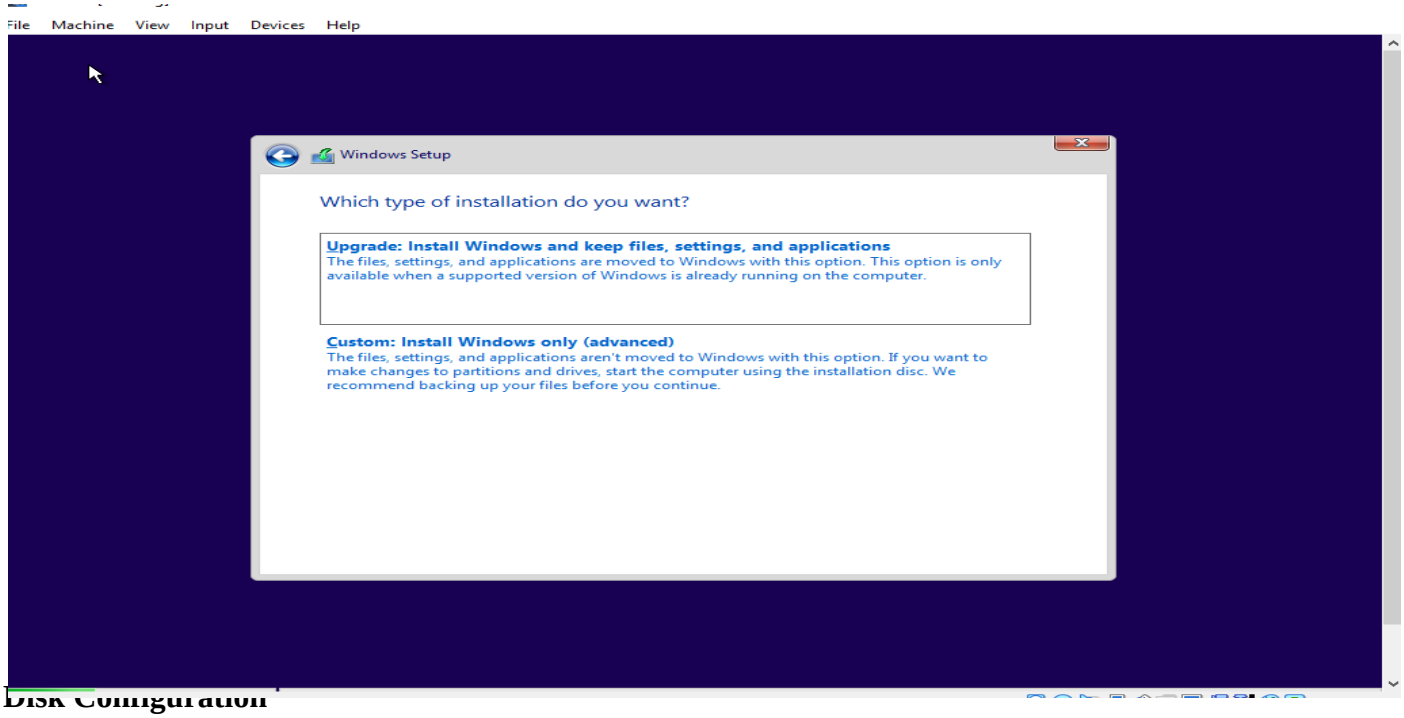
Operating System Selection

- Choose the desired Windows edition (e.g., Windows 10 Home or Pro).
- Accept the license terms and click **next**.



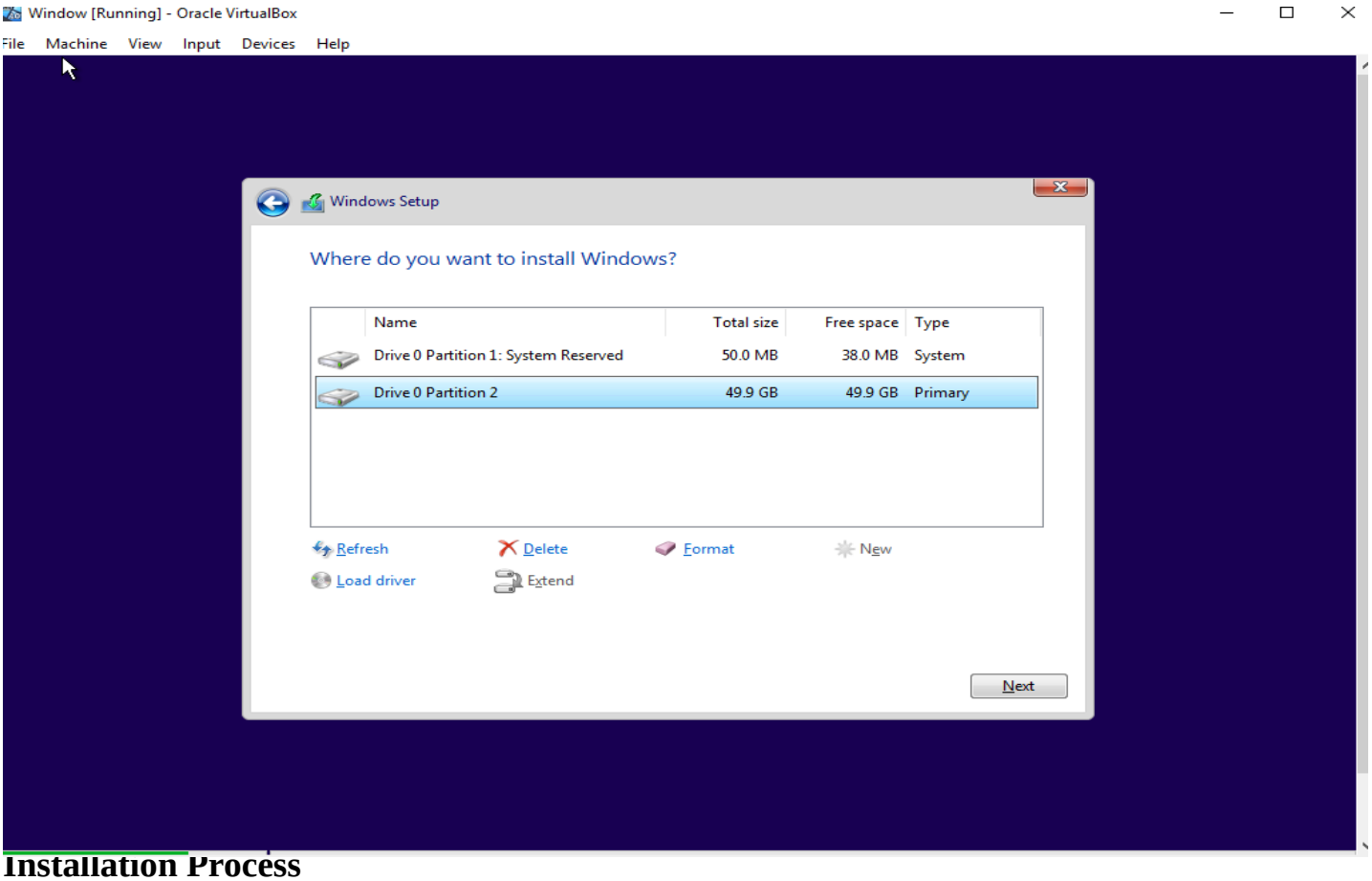
Installation Type

- Select **Custom: Install Windows only (advanced)** for a clean installation.



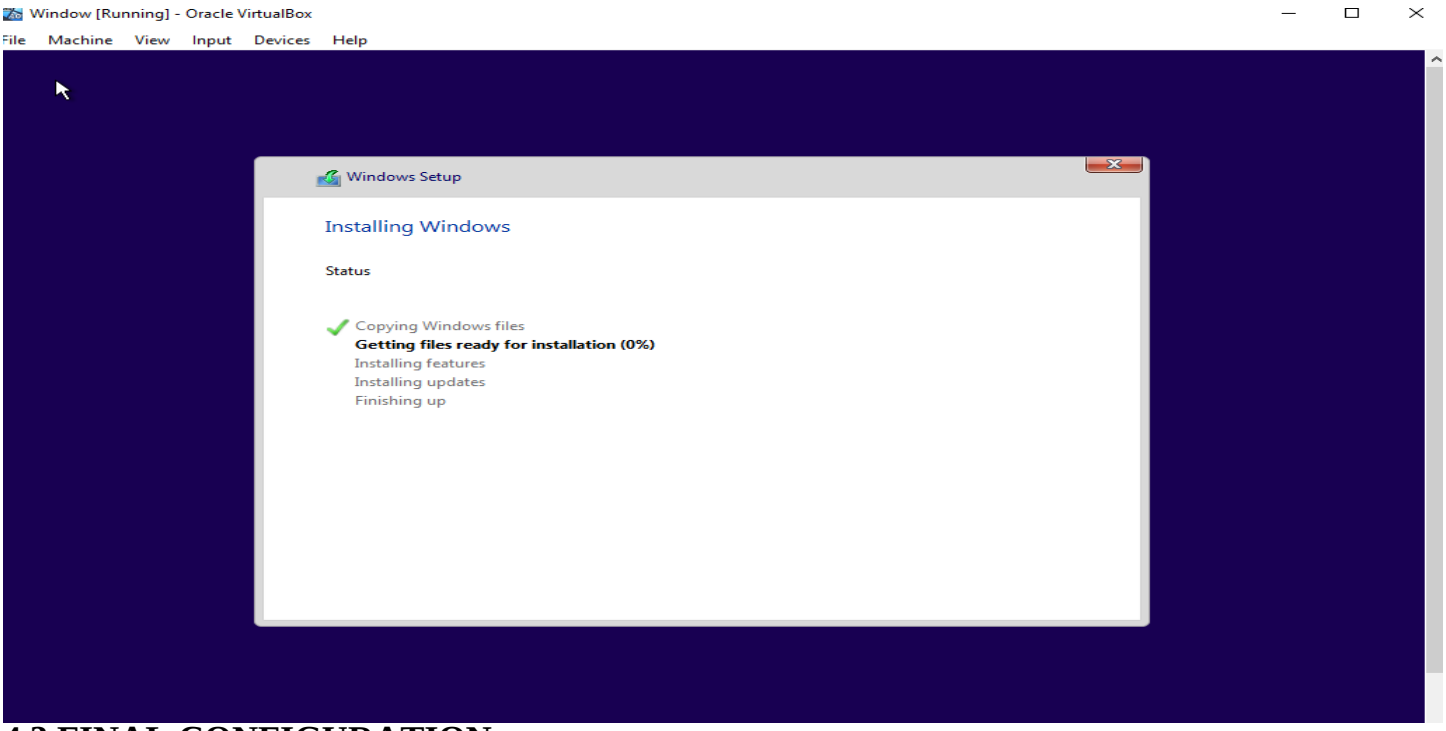
Disk Configuration

- Select the unallocated space on the virtual disk.
- Click **Next** to allow automatic partition creation.



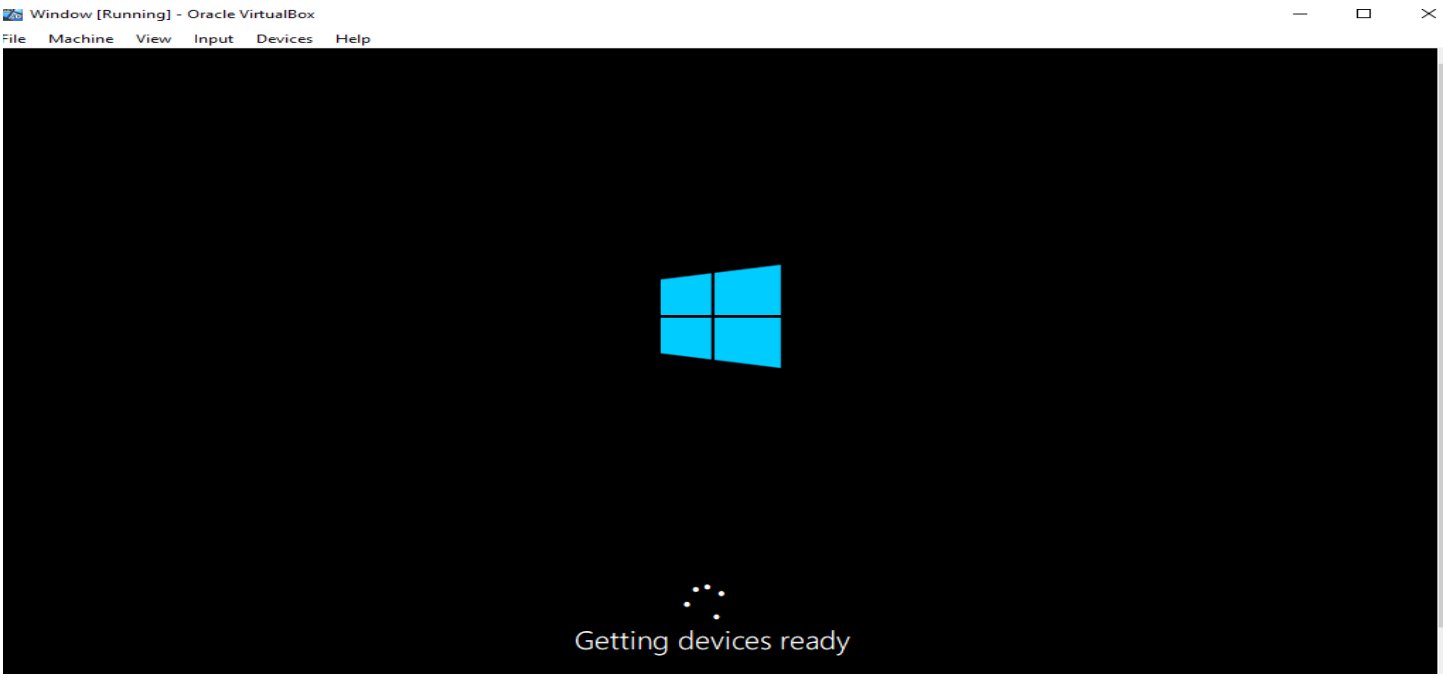
Installation Process

- The installer will copy files, install Windows, and reboot the VM multiple times. This process may take 15–30 minutes.
- Avoid interrupting the installation.



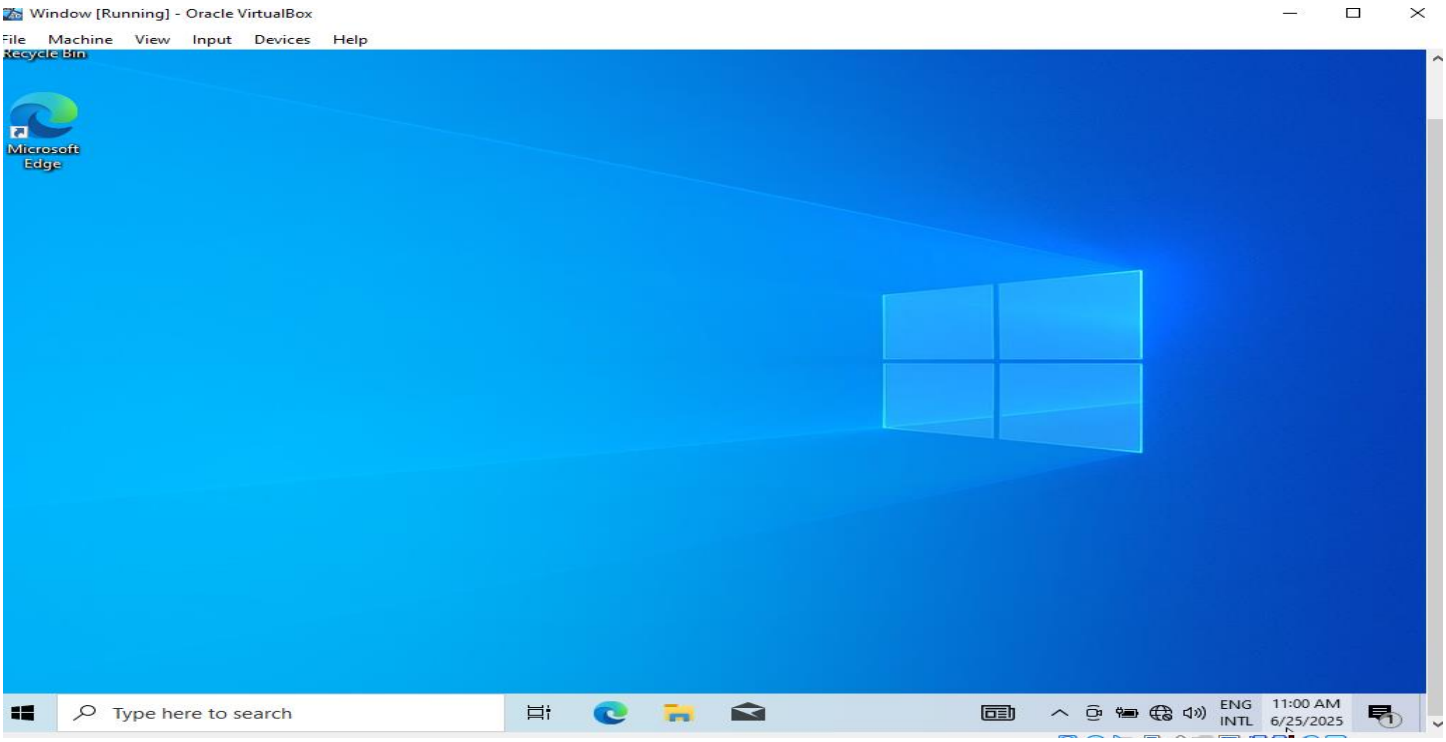
4.3 FINAL CONFIGURATION

- After installation, the system boots into the Windows setup screen for final configuration.
- Set up a user account (username and password), time zone, and network settings (network connection can be skipped for local use).



5. RESULTS

The installation process was successfully completed, resulting in a fully functional Windows virtual machine running in Oracle Virtual Box. The system boots to the Windows desktop, and basic functionality, such as user login and system navigation, was verified. The virtual environment provides an isolated platform suitable for testing and development purposes.



6. CONCLUSION

This project successfully demonstrated the installation of Windows in Oracle Virtual Box, achieving all outlined objectives. The step-by-step methodology, supported by visual placeholders for screenshots, ensures that the process is repeatable and accessible to users with basic technical knowledge. The resulting virtual machine offers a reliable environment for further experimentation, software testing, or development tasks.