7. Create a Virtual Machine with 1 CPU, 2GB RAM and 15GB storage disk using a Type 2 Virtualization Software, using VirtualBox.

Aim

To create and configure a Virtual Machine (VM) with 1 CPU, 2 GB RAM, and 15 GB storage disk using Type-2 Virtualization Software (Oracle VirtualBox).

Requirements

Hardware Requirements

- Computer/Laptop with virtualization support (Intel VT-x / AMD-V enabled)
- Minimum 4 GB RAM
- At least 15 GB free disk space

Software Requirements

- Host Operating System: Windows / Linux
- Oracle VirtualBox (Type-2 Hypervisor)
- ISO image of Guest Operating System (Windows/Linux)

Procedure

Step 1: Install Oracle VirtualBox

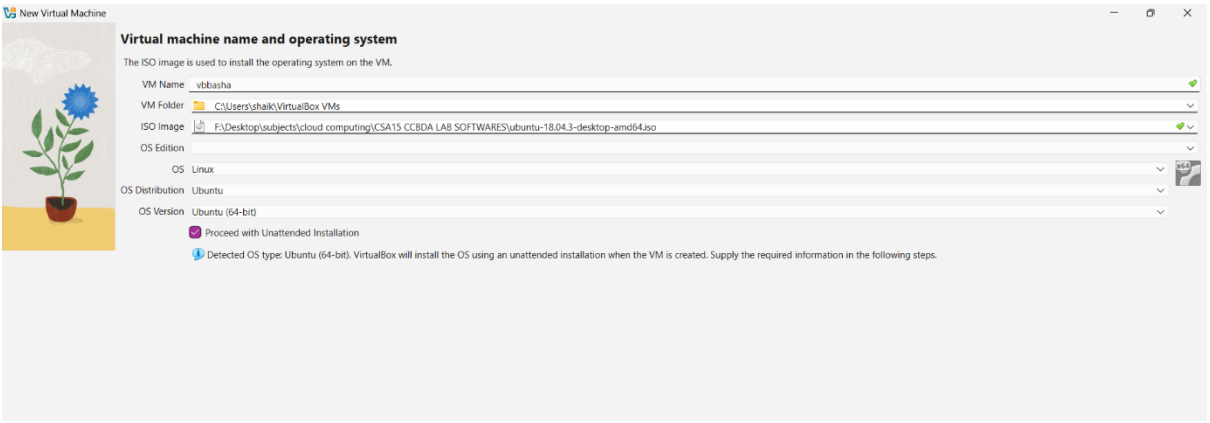
1. Download Oracle VirtualBox from the official website.
2. Run the installer and follow the installation wizard.
3. Accept default settings and complete the installation.
4. Restart the system if required.

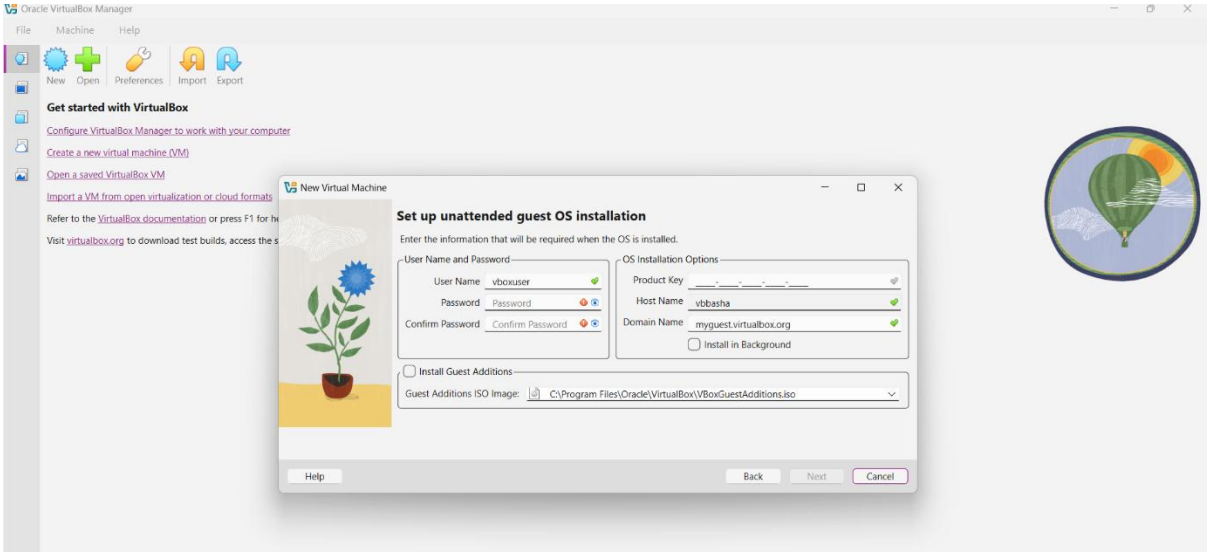
Step 2: Download Guest OS ISO

1. Download the ISO file of the required Guest OS (Windows/Linux).
2. Save the ISO file to a known location on the system.

Step 3: Create a New Virtual Machine

1. Open **Oracle VirtualBox**.
2. Click on **New**.
3. Enter the VM name.
4. Select the OS type and version (e.g., Linux → Ubuntu / Windows → Windows 10).
5. Click **Next**.





Step 4: Configure VM Hardware

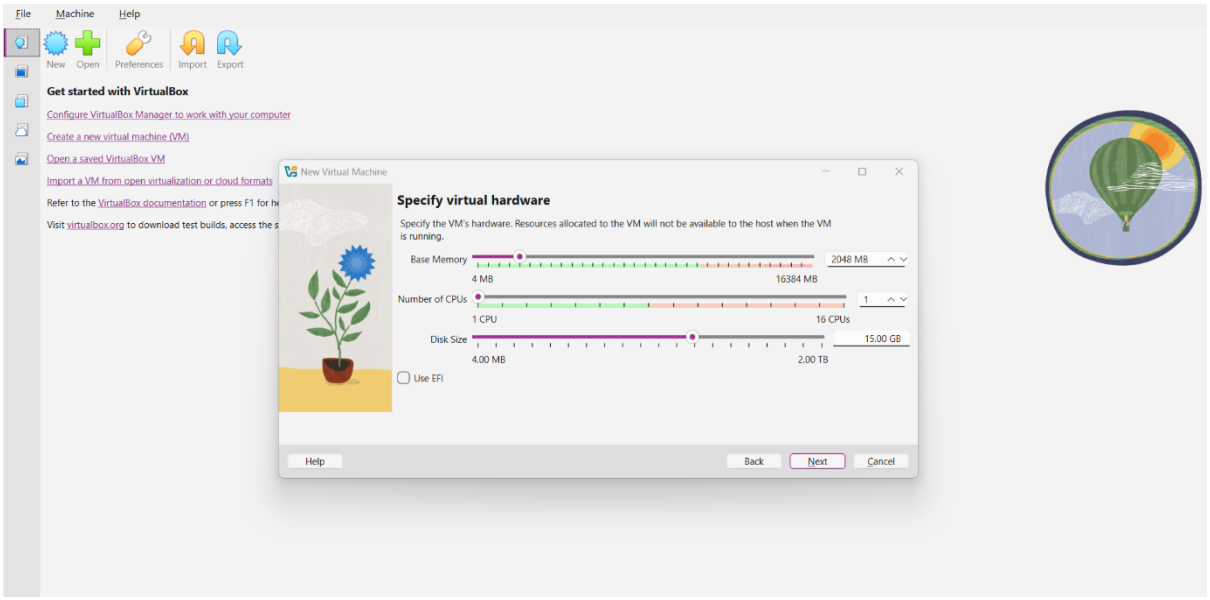
1. Allocate RAM (minimum 2 GB recommended).
2. Create a virtual hard disk.
3. Select **VDI (VirtualBox Disk Image)**.
4. Choose **Dynamically Allocated**.
5. Allocate disk size (minimum 20 GB).
6. Click **Create**.

Step 5: Attach Guest OS ISO

1. Select the created VM.
2. Click **Settings → Storage**.
3. Under Controller IDE, click **Empty**.
4. Attach the downloaded ISO file.
5. Click **OK**.

Step 6: Install Guest Operating System

1. Click **Start** to boot the VM.
2. The system will boot from the ISO file.
3. Follow the OS installation steps (language, region, user account).
4. Complete the installation and reboot the VM.



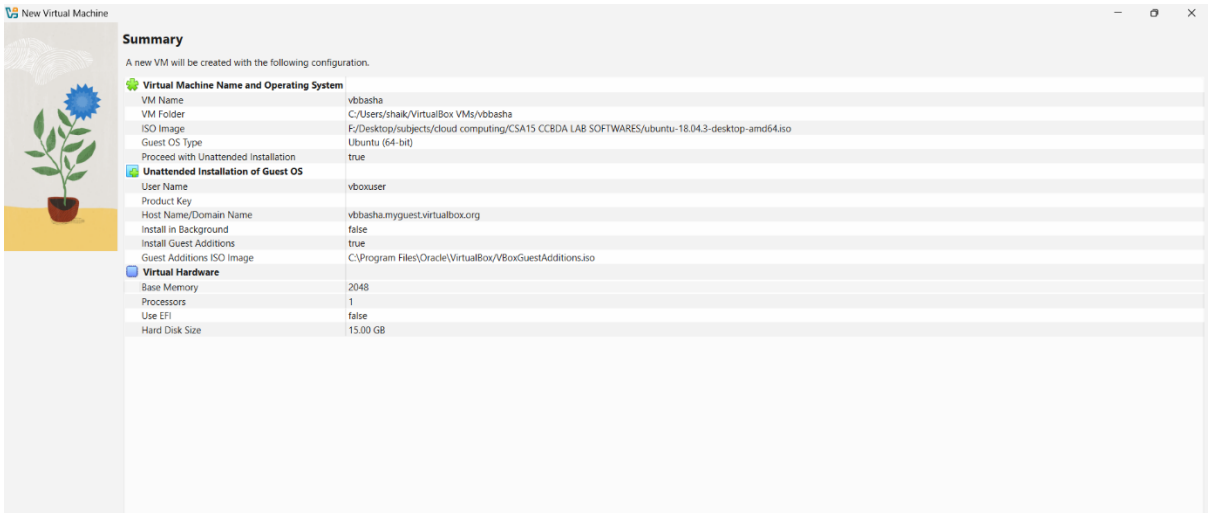
Step 7: Verify Virtual Machine

1. After reboot, log in to the guest OS.
2. Check system information to confirm successful installation.
3. The VM now runs independently inside the host OS.

Result

A **Virtual Machine with 1 CPU, 2 GB RAM, and 15 GB storage disk** was successfully created and configured using **Oracle VirtualBox**, a **Type-2 Hypervisor**.

Output: -


New Virtual Machine
Summary
A new VM will be created with the following configuration.
Virtual Machine Name and Operating System
VM Name vbbasha
VM Folder C:/Users/shaik/VirtualBox VMs/vbbasha
ISO Image F:/Desktop/subjects/cloud computing/CSA15 CCBDA LAB SOFTWARES/ubuntu-18.04.3-desktop-amd64.iso
Guest OS Type Ubuntu (64-bit)
Proceed with Unattended Installation true
Unattended Installation of Guest OS
User Name vboxuser
Product Key
Host Name/Domain Name vbbasha.myguest.virtualbox.org
Install in Background false
Install Guest Additions true
Guest Additions ISO Image C:\Program Files\Oracle\VirtualBox/VBoxGuestAdditions.iso
Virtual Hardware
Base Memory 2048
Processors 1
Use EFI false
Hard Disk Size 15.00 GB