EXPERIMENT-7

Aim:

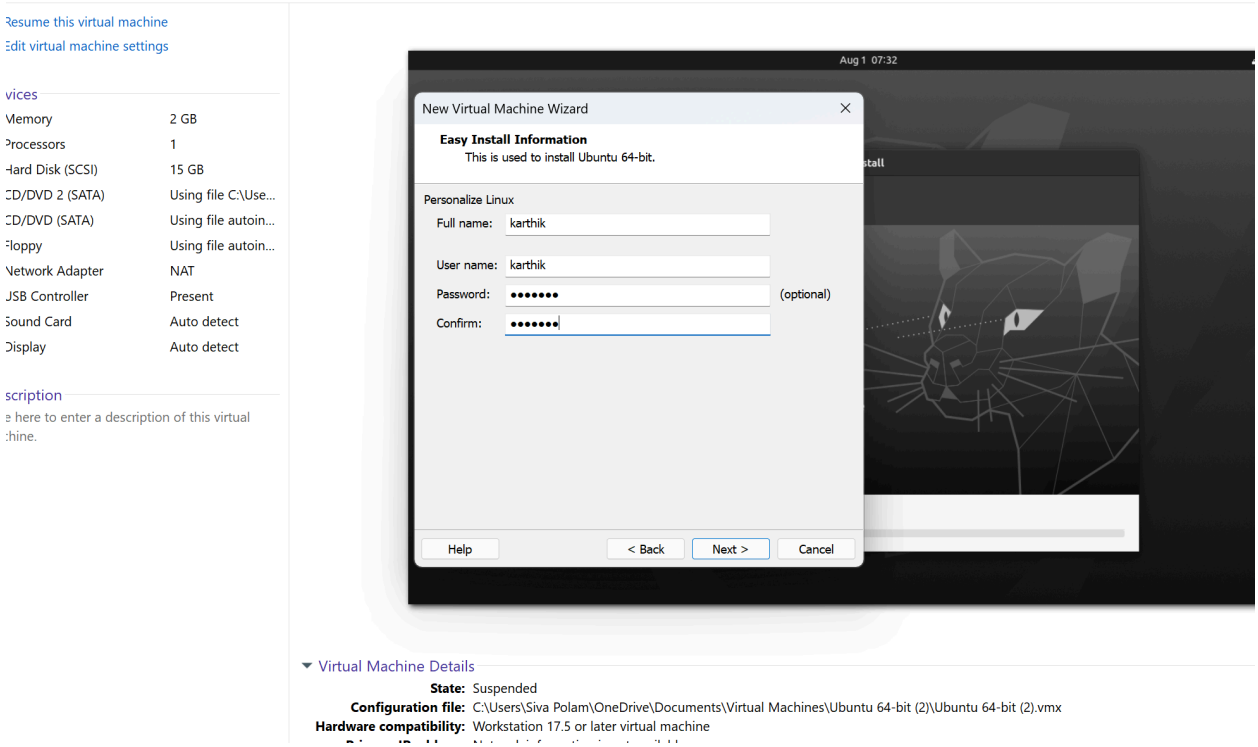
To create and configure a Virtual Machine with 1 CPU, 2GB RAM, and 15GB storage disk using Type 2 Virtualization Software (VirtualBox).

Procedure

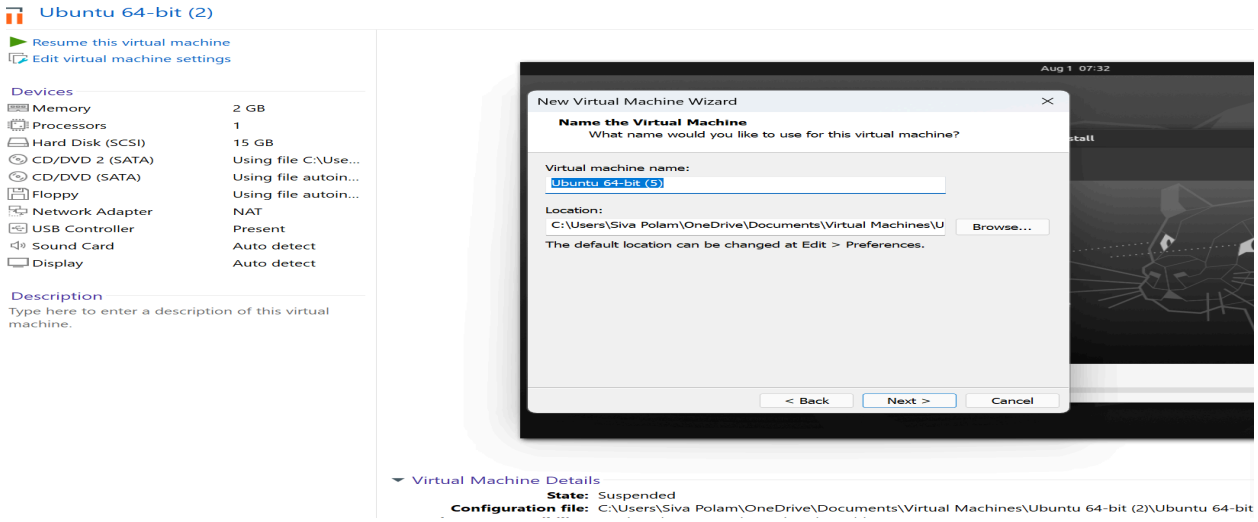
1. Open VirtualBox
    - Launch Oracle VirtualBox from the desktop/start menu.
2. Create a New Virtual Machine
    - Click on "New" in the VirtualBox Manager.
    - Enter the name of the VM (e.g., "My_VM").
    - Select the type and version of the guest operating system (e.g., Linux → Ubuntu 64-bit).
    - Click Next.
3. Allocate Memory (RAM)
    - In the memory size dialog box, allocate 2048 MB (2GB) RAM.
    - Click Next.
4. Create Virtual Hard Disk
    - Select "Create a virtual hard disk now" and click Create.
    - Choose VDI (VirtualBox Disk Image) as disk type.
    - Select Dynamically Allocated storage.
    - Set the disk size to 15GB and click Create.
5. Configure CPU
    - Select the created VM and click Settings → System → Processor.
    - Allocate 1 CPU core.
    - Click OK.
6. Mount Installation ISO
    - In the VM settings, go to Storage.
    - Click on the empty disk icon under Controller: IDE.
    - Choose the downloaded OS ISO file and click OK.

7. Start Virtual Machine
    - Select the VM and click Start.
    - Follow the OS installation steps to complete the setup.

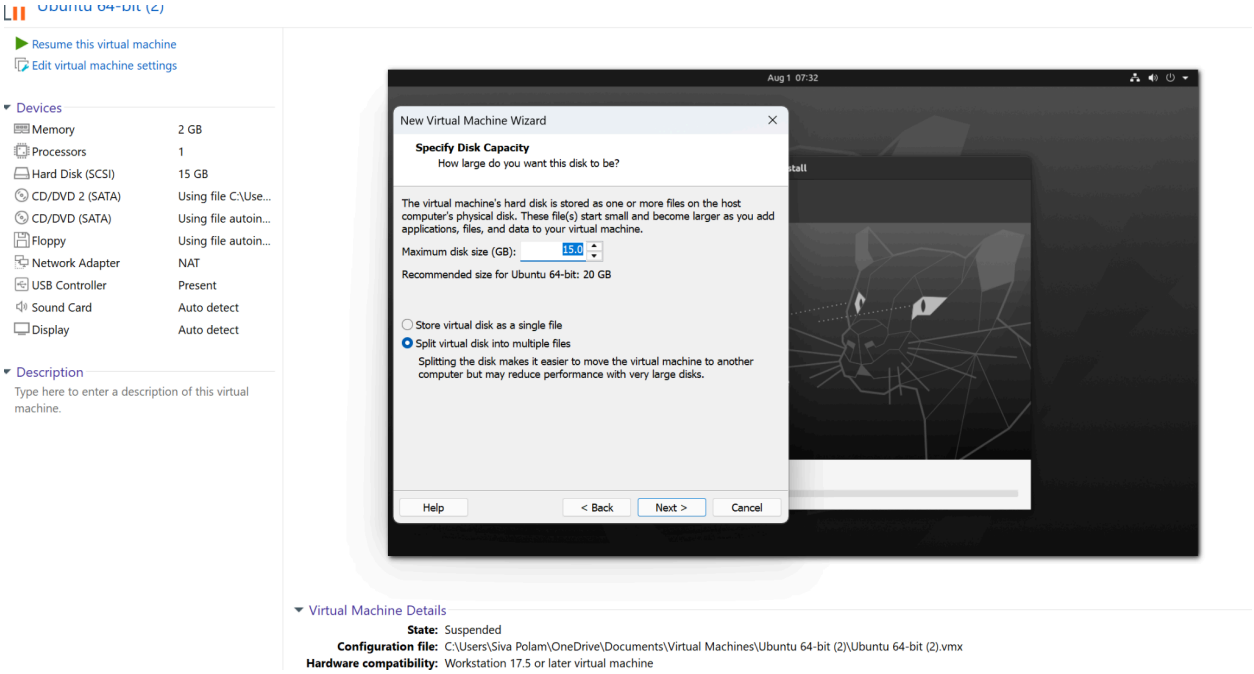
Step 1:



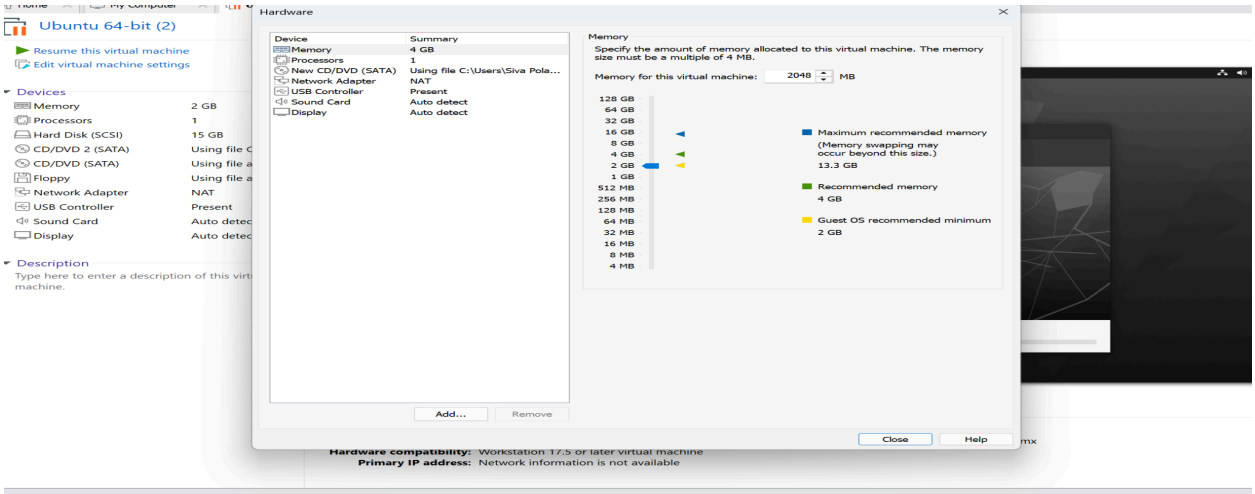
STEP 2:



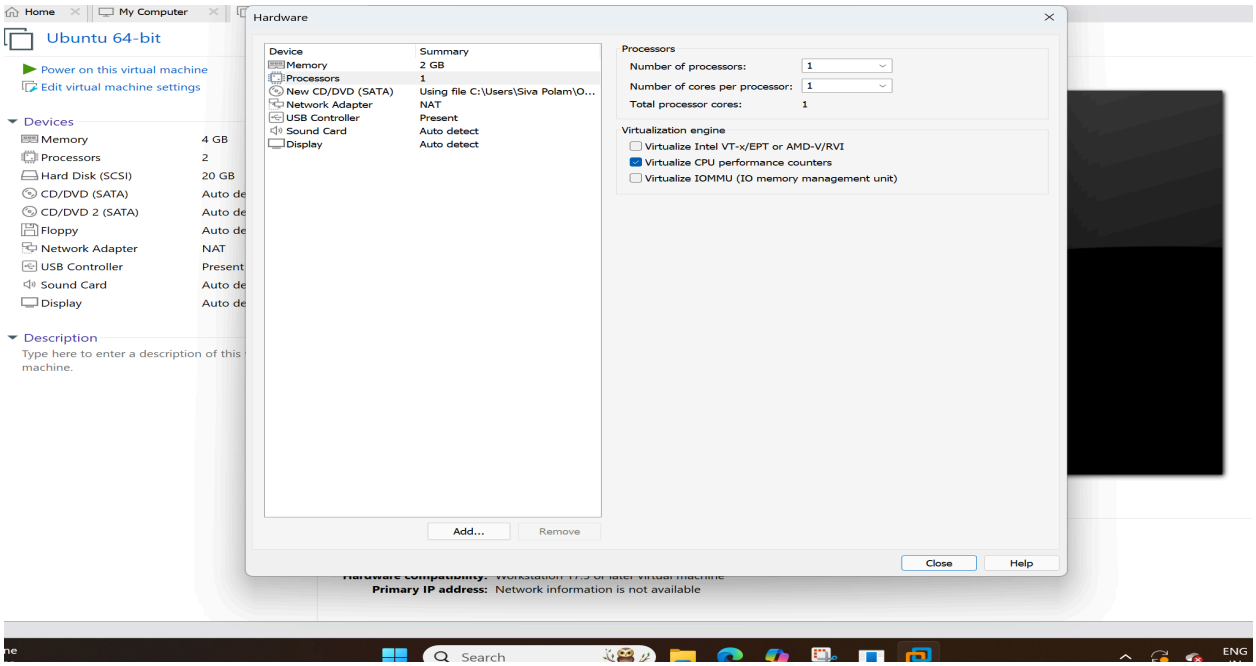
STEP 3:


Ubuntu 64-bit (2)
Resume this virtual machine
Edit virtual machine settings
Devices
Memory 2 GB
Processors 1
Hard Disk (SCSI) 15 GB
CD/DVD 2 (SATA) Using file C:\Use...
CD/DVD (SATA) Using file autoin...
Floppy Using file autoin...
Network Adapter NAT
USB Controller Present
Sound Card Auto detect
Display Auto detect
Description
Type here to enter a description of this virtual machine.
Aug 1 07:32
New Virtual Machine Wizard
Specify Disk Capacity
How large do you want this disk to be?
The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.
Maximum disk size (GB): 15.0
Recommended size for Ubuntu 64-bit: 20 GB
Store virtual disk as a single file
Split virtual disk into multiple files
Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.
Help
< Back
Next >
Cancel
Virtual Machine Details
State: Suspended
Configuration file: C:\Users\Siva Polam\OneDrive\Documents\Virtual Machines\Ubuntu 64-bit (2)\Ubuntu 64-bit (2).vmx
Hardware compatibility: Workstation 17.5 or later virtual machine

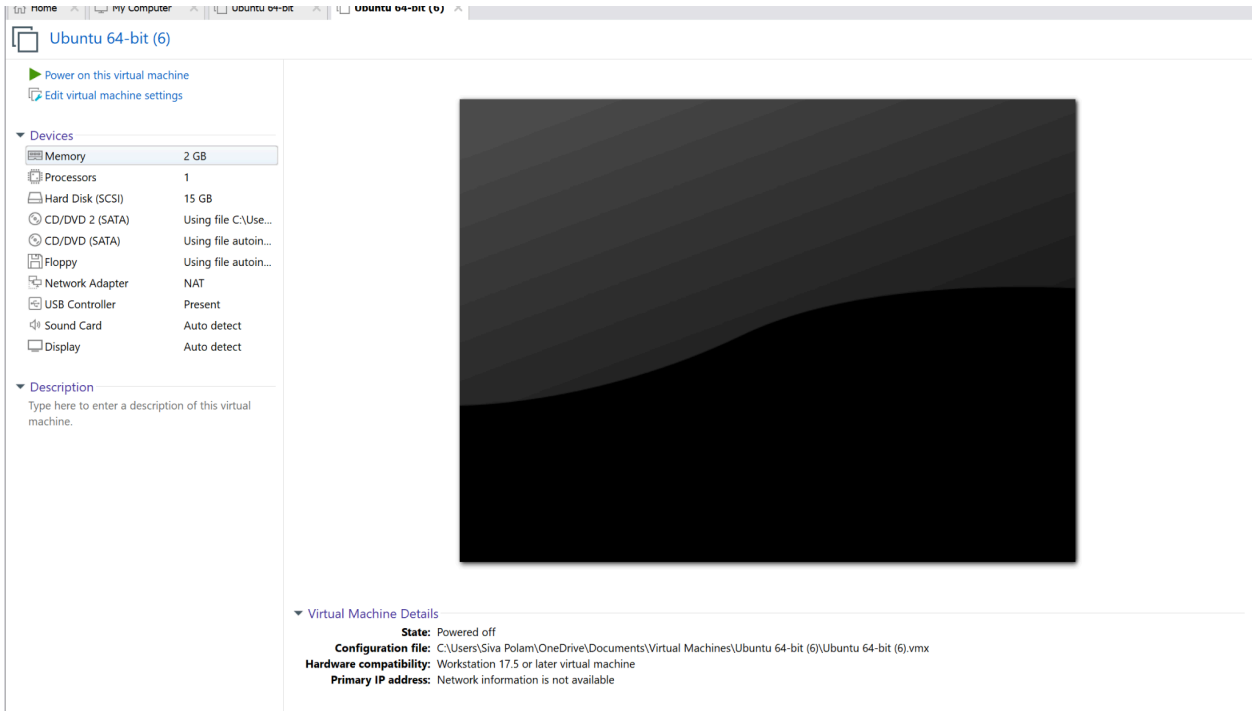
STEP 4:


Ubuntu 64-bit (2)
Resume this virtual machine
Edit virtual machine settings
Devices
Memory 2 GB
Processors 1
Hard Disk (SCSI) 15 GB
Network Adapter NAT
USB Controller Present
Sound Card Auto detect
Display Auto detect
Description
Hardware
Device
Summary
Memory 4 GB
Processors 1
New CD/DVD (SATA) Using file C:\Users\Siva Pola...
Network Adapter NAT
USB Controller Present
Sound Card Auto detect
Display Auto detect
Add...
Remove
Memory
Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.
Memory for this virtual machine: 2048 MB
128 GB
64 GB
32 GB
16 GB
8 GB
4 GB
2 GB
1 GB
512 MB
256 MB
128 MB
64 MB
32 MB
16 MB
8 MB
4 MB
Maximum recommended memory
(Memory swapping may occur beyond this size.)
13.3 GB
Recommended memory
4 GB
Guest OS recommended minimum
2 GB
Close
Help
Hardware compatibility: Workstation 17.5 or later virtual machine
Primary IP address: Network information is not available

STEP 5:


Home
My Computer
Ubuntu 64-bit
Power on this virtual machine
Edit virtual machine settings
Devices
Memory 4 GB
Processors 2
Hard Disk (SCSI) 20 GB
CD/DVD (SATA) Auto de
CD/DVD 2 (SATA) Auto de
Floppy Auto de
Network Adapter NAT
USB Controller Present
Sound Card Auto de
Display Auto de
Description
Type here to enter a description of this machine.
Hardware
Device Summary
Memory 2 GB
Processors 1
New CD/DVD (SATA) Using file C:\Users\Siva Polam\O...
Network Adapter NAT
USB Controller Present
Sound Card Auto detect
Display Auto detect
Add...
Remove
Processors
Number of processors: 1
Number of cores per processor: 1
Total processor cores: 1
Virtualization engine
Virtualize Intel VT-x/EPT or AMD-V/RVI
Virtualize CPU performance counters
Virtualize IOMMU (IO memory management unit)
Close
Help
Primary IP address: Network information is not available
Search
ENG

STEP 6:


Ubuntu 64-bit (6)
Power on this virtual machine
Edit virtual machine settings
Devices
Memory 2 GB
Processors 1
Hard Disk (SCSI) 15 GB
CD/DVD 2 (SATA) Using file C:\Use...
CD/DVD (SATA) Using file autoin...
Floppy Using file autoin...
Network Adapter NAT
USB Controller Present
Sound Card Auto detect
Display Auto detect
Description
Type here to enter a description of this virtual machine.
Virtual Machine Details
State: Powered off
Configuration file: C:\Users\Siva Polam\OneDrive\Documents\Virtual Machines\Ubuntu 64-bit (6)\Ubuntu 64-bit (6).vmx
Hardware compatibility: Workstation 17.5 or later virtual machine
Primary IP address: Network information is not available

RESULT:

A virtual machine with 1 CPU, 2GB RAM, and 15GB storage disk is successfully created and configured using VirtualBox (Type 2 Hypervisor).