



Experiment 1

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Subject Name: Foundation of Cloud

Subject Code: 22CSP-367

IoT Edge ML Lab

1. Aim:

Install VirtualBox or VMware Workstation on any operating system and set up various flavors of Linux or Windows as virtual machines.

2. Objective:

The objective is to create a virtualized environment for testing, learning, and development by installing and configuring multiple operating systems on VirtualBox or VMware Workstation.

3. Procedure:

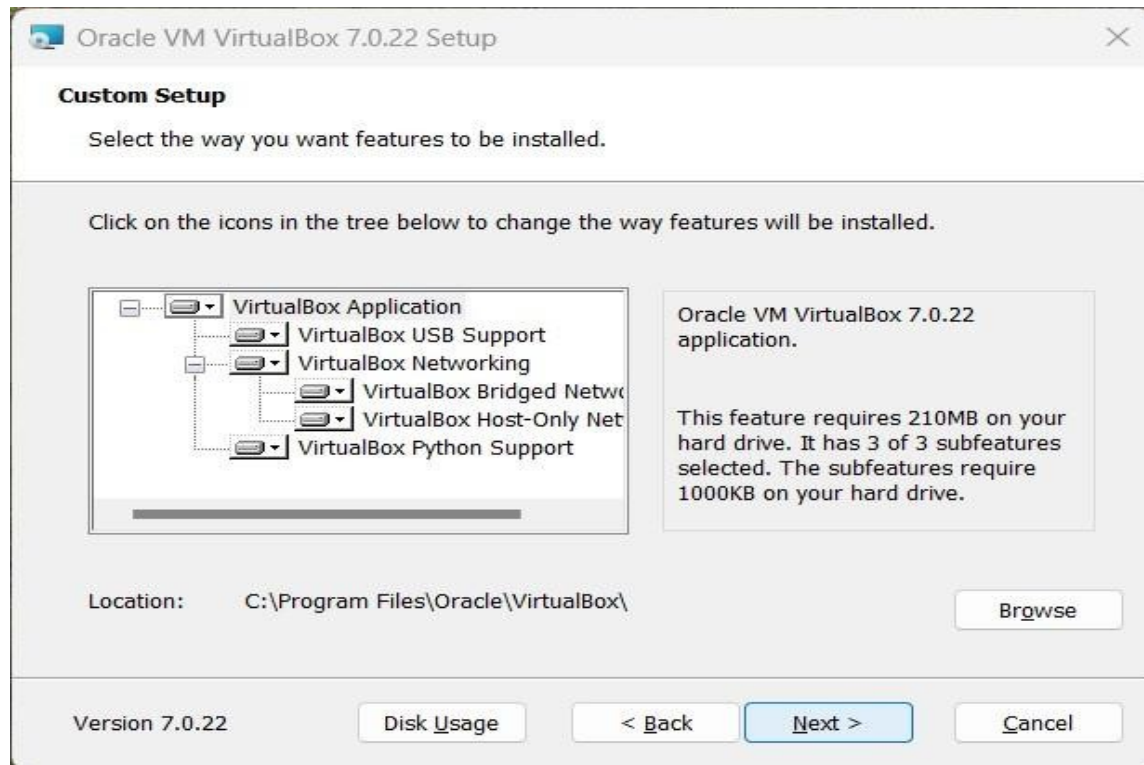
- VirtualBox enables flexible virtualization, running multiple independent operating systems simultaneously.
- The hypervisor operates as a Ring 0 kernel service, managing memory, guest context, and hypervisor modules.
- Interrupts are handled by switching execution to another OS using VT-x/AMD-V, with the host scheduling guest processes.
- Device drivers allow guests to access host resources like disks and network controllers.
- Support processes like VBoxSVC run automatically to manage guest VMs launched via the VirtualBox GUI

4. Steps to install Virtual Box:

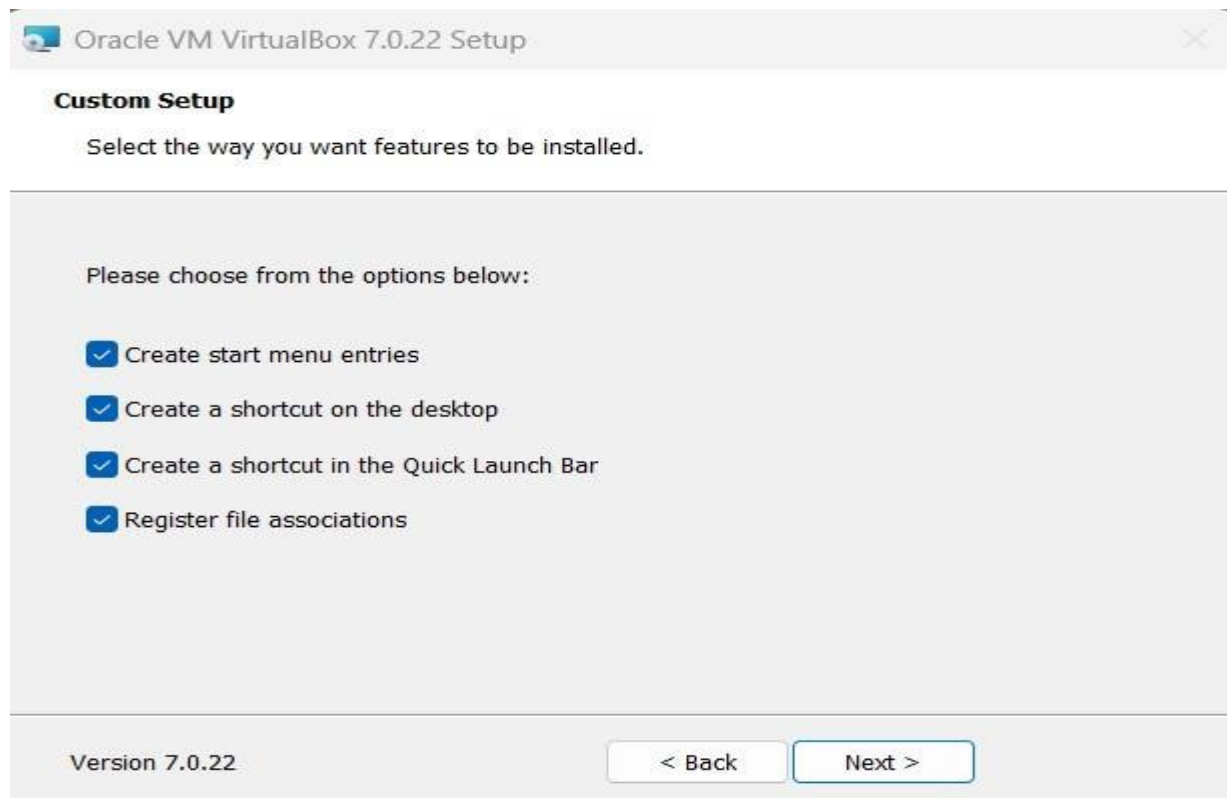
- Download the virtual box exe and click the exe file and select next button



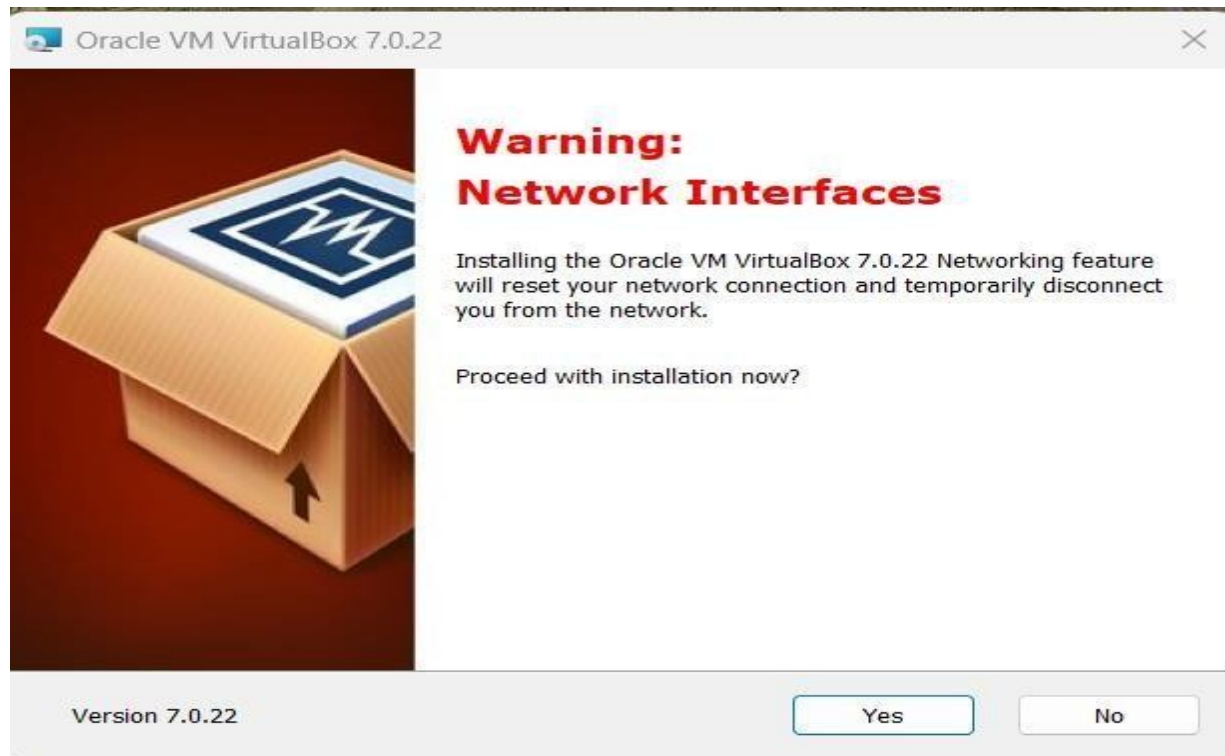
- Click the next button



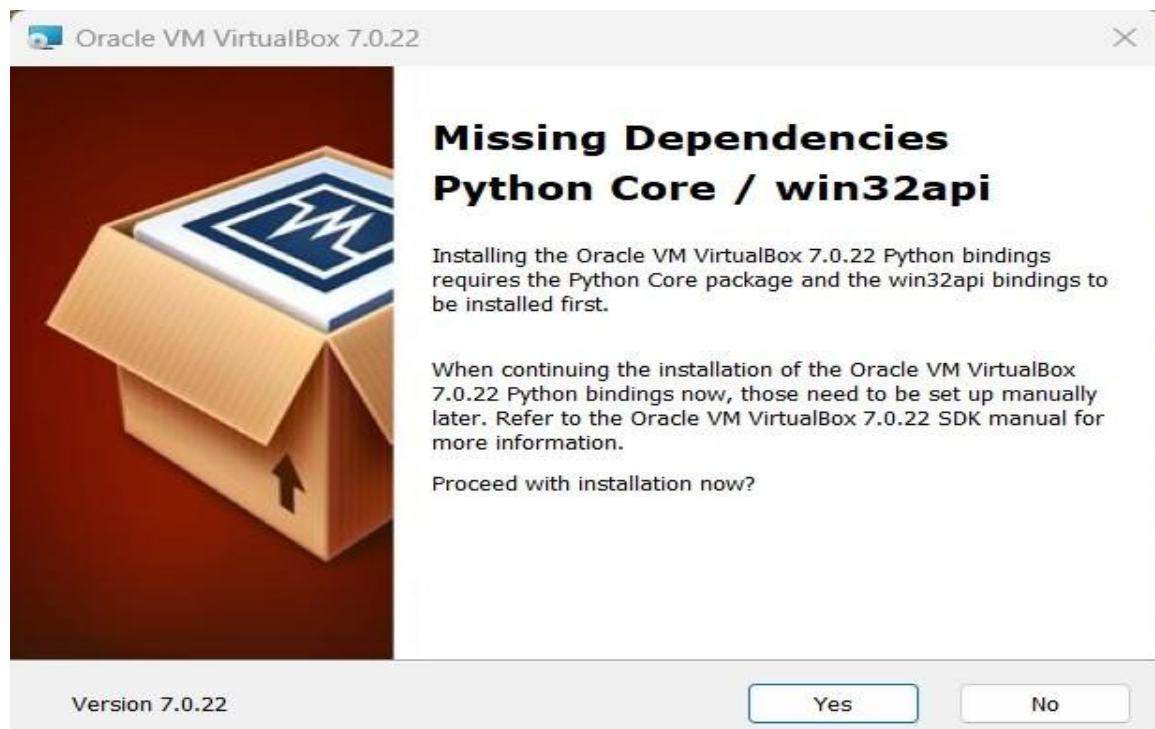
- Click the next button



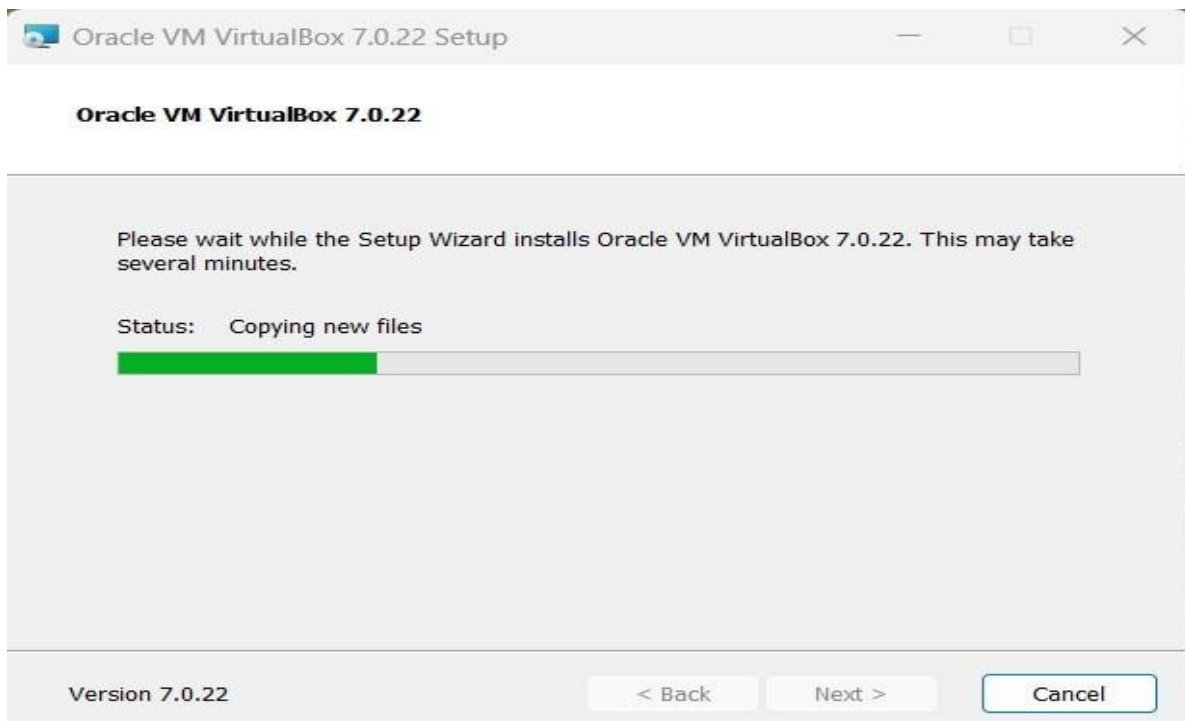
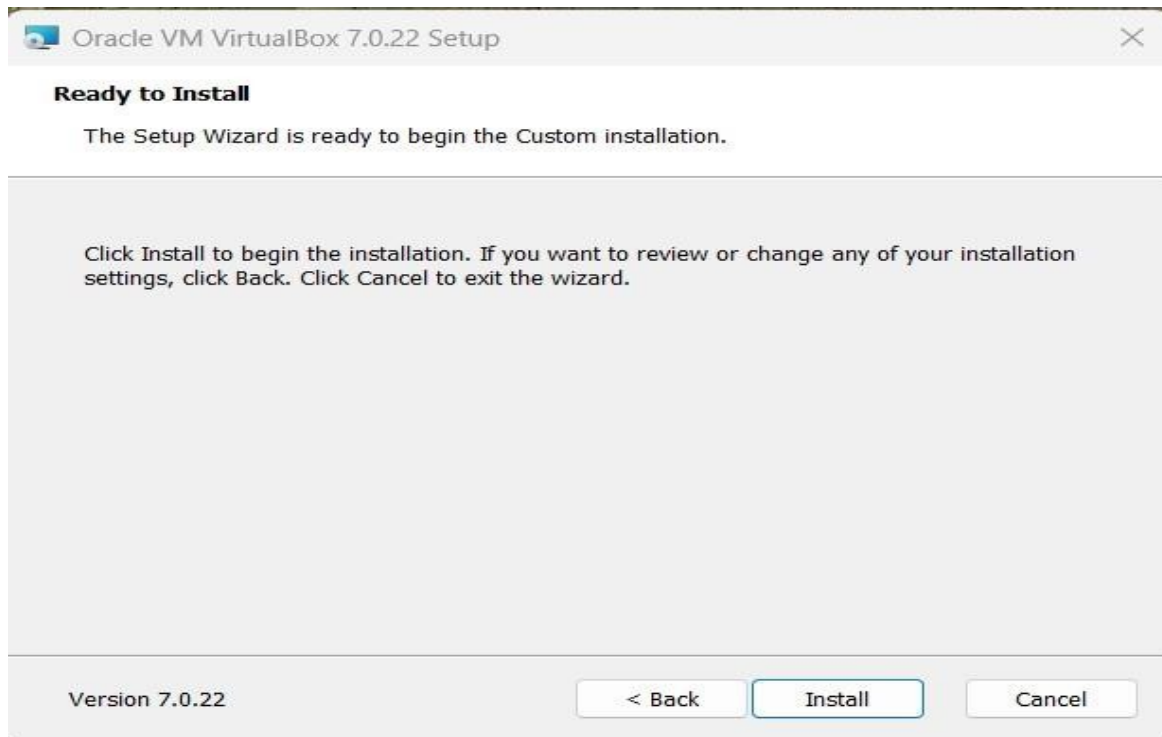
- Click the yes button



- Click the yes button



- Click the install button



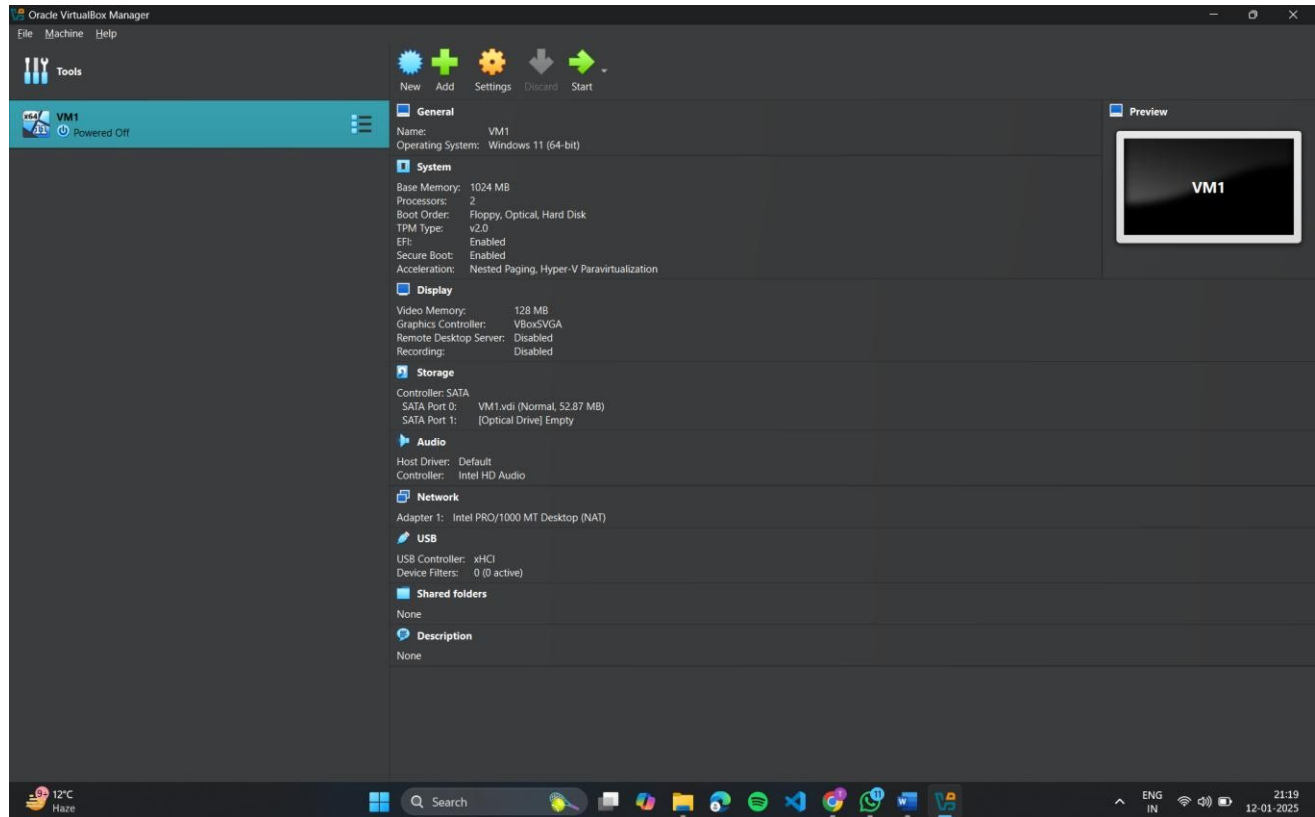
- Click the finish button



- Virtual Box icon is visible on desktop now installation is completed.



5. Output:





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6. Learning Outcome:

- Learn how to install VirtualBox or VMware Workstation on your computer.
- Acquire the skills to create, configure, and manage a virtual machine.
- Familiarize yourself with virtual hardware components, including virtual CPUs, RAM, disks, and network adapters.
- Practice installing different operating systems (Linux/Windows) on virtual machines.
- Understand what virtualization is and how it allows running multiple operating systems on a single physical machine.