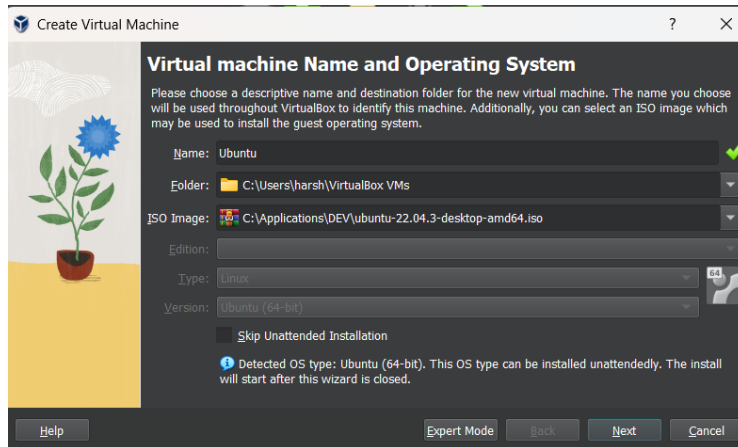


Lab 2 Assignment

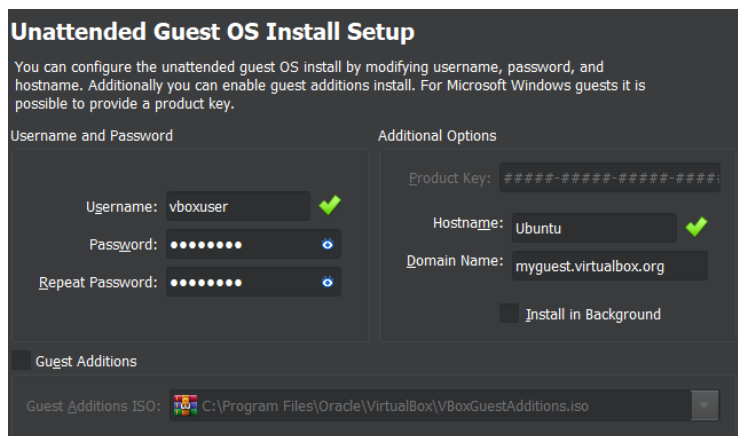
Exploring Oracle VM VirtualBox to create the virtual Machines

1. Create Two or more Virtual Machine and assign resources.

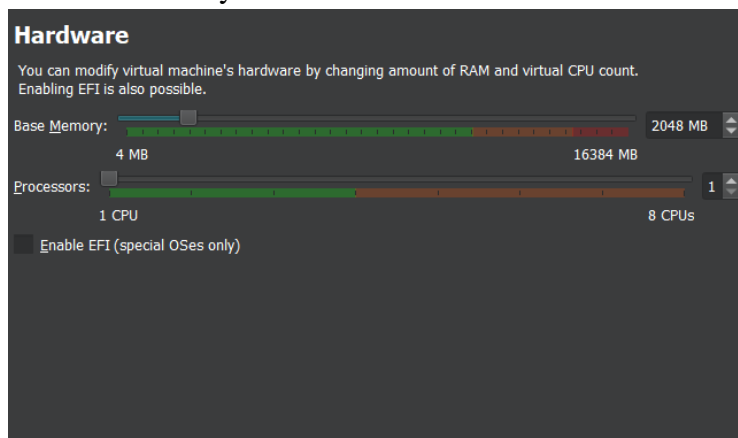
- Click on New button on Home Page. Choose file path of OS.



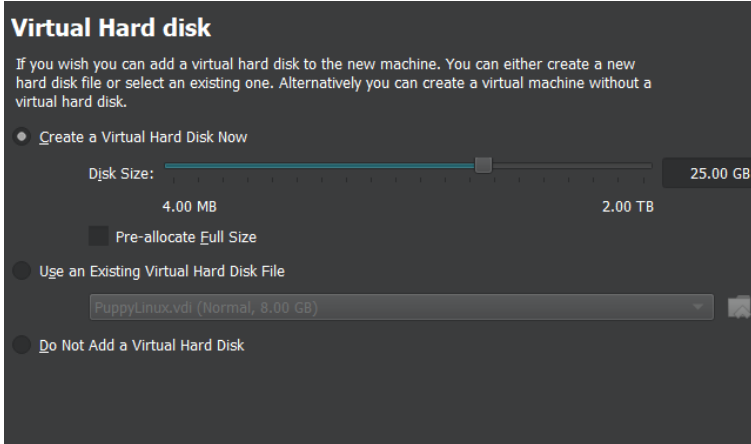
- Give User details



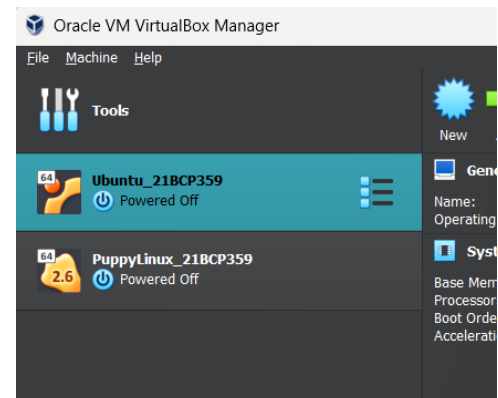
- Allocate Memory and Processors



- Allocate Disk Space

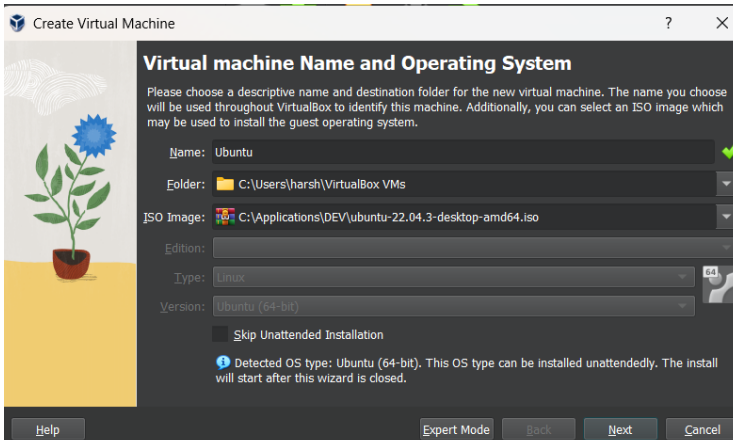


- Check Summary and click Finish. Do the same for other VM.



2. Install two or more Guest Operating Systems on all the VMs

- Click on New button on Home Page. Choose file path of OS.



- Give User details

Unattended Guest OS Install Setup

You can configure the unattended guest OS install by modifying username, password, and hostname. Additionally you can enable guest additions install. For Microsoft Windows guests it is possible to provide a product key.

Username and Password	Additional Options
Username: vboxuser ✓	Product Key: #####-#####-#####-#####
Password: ••••••••	Hostname: Ubuntu ✓
Repeat Password: ••••••••	Domain Name: myguest.virtualbox.org
	<input type="checkbox"/> Install in Background

Guest Additions

Guest Additions ISO: C:\Program Files\Oracle\VirtualBox\VBBoxGuestAdditions.iso

- Allocate Memory and Processors

Hardware

You can modify virtual machine's hardware by changing amount of RAM and virtual CPU count. Enabling EFI is also possible.

Base Memory: 2048 MB

Processors: 1 CPU

☐ Enable EFI (special OSes only)

- Allocate Disk Space

Virtual Hard disk

If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select an existing one. Alternatively you can create a virtual machine without a virtual hard disk.

☒ Create a Virtual Hard Disk Now

Disk Size: 25.00 GB

☐ Pre-allocate Full Size

☐ Use an Existing Virtual Hard Disk File

PuppyLinux.vdi (Normal, 8.00 GB)

☐ Do Not Add a Virtual Hard Disk

- Check Summary and click Finish. Do the same for other VM.

Summary

The following table summarizes the configuration you have chosen for the new virtual machine. When you are happy with the configuration press Finish to create the virtual machine. Alternatively you can go back and modify the configuration.

Machine Name and OS Type	
Machine Name	Ubuntu
Machine Folder	C:/Users/harsh/VirtualBox VMs/Ubuntu
ISO Image	C:/Applications/DEV/ubuntu-22.04.3-desktop-amd64.iso
Guest OS Type	Ubuntu (64-bit)
Skip Unattended Install	false

Unattended Install	
Username	vboxuser
Product Key	false
Hostname/Domain Name	Ubuntu.myquest.virtualbox.org
Install in Background	false
Install Guest Additions	false

Hardware	
Base Memory	2048
Processor(s)	1
EFI Enable	false

Disk	
Disk Size	25.00 GB
Pre-allocate Full Size	false

The screenshot shows the Oracle VM VirtualBox Manager interface. It lists two virtual machines: 'Ubuntu_21BCP359' and 'PuppyLinux_21BCP359'. Both are currently 'Powered Off'. The interface includes a menu bar (File, Machine, Help), a toolbar with icons for New, Clone, and other actions, and a sidebar showing details for the selected VM.

3. Run simple applications or programs on all the VMs.

- Run a simple Python script printing even numbers in VM-1 at 5 sec intervals.

```
harsh@Ubuntu:~/Desktop/PDEU/Cloud_Computing$ python3 odd_even.py
0
2
4
6
█
```

- Run a simple Python script printing odd numbers in VM-2 at 5 sec intervals.

```
harsh@Ubuntu:~/Desktop/PDEU/Cloud_Computing$ python3 odd_even.py
1
3
5
7
█
```

4. View system configurations of each VM. Check whether it is same different from what you have created.

General

Name: Ubuntu_21BCP359
Operating System: Ubuntu (64-bit)

System

Base Memory: 5400 MB
Processors: 2
Boot Order: Hard Disk, Optical, Floppy
Acceleration: Nested Paging, KVM Paravirtualization

Display

Video Memory: 128 MB
Graphics Controller: VMSVGA
Acceleration: 3D
Remote Desktop Server: Disabled
Recording: Disabled

Storage

Controller: IDE
IDE Secondary Device 0: [Optical Drive] Empty
Controller: SATA
SATA Port 0: Ubuntu.vdi (Normal, 50.00 GB)

Audio

Host Driver: Default
Controller: Intel HD Audio

Network

Adapter 1: Intel PRO/1000 MT Desktop (NAT)

USB

USB Controller: OHCI, EHCI
Device Filters: 1 (1 active)

Shared folders

Shared Folders: 1

Description

None

General

Name: PuppyLinux_21BCP359
Operating System: Linux 2.6 / 3.x / 4.x / 5.x (64-bit)

System

Base Memory: 2446 MB
Processors: 2
Boot Order: Floppy, Optical, Hard Disk
Acceleration: Nested Paging, KVM Paravirtualization

Display

Video Memory: 128 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled

Storage

Controller: IDE
IDE Secondary Device 0: [Optical Drive] fossapup64-9.5.iso (409.00 MB)
Controller: SATA
SATA Port 0: PuppyLinux.vdi (Normal, 8.00 GB)

Audio

Host Driver: Default
Controller: ICH AC97

Network

Adapter 1: Intel PRO/1000 MT Desktop (NAT)

USB

USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)

Shared folders

None

Description

None