# Week Report 2

## Summary of Presentation

In this week's presentation we learned about the benefits of virtualization as well as if our computers can virtualize, we also learned about virtual box and exploring it's tools as well as its extension, and lastly we learned how to install virtual box.

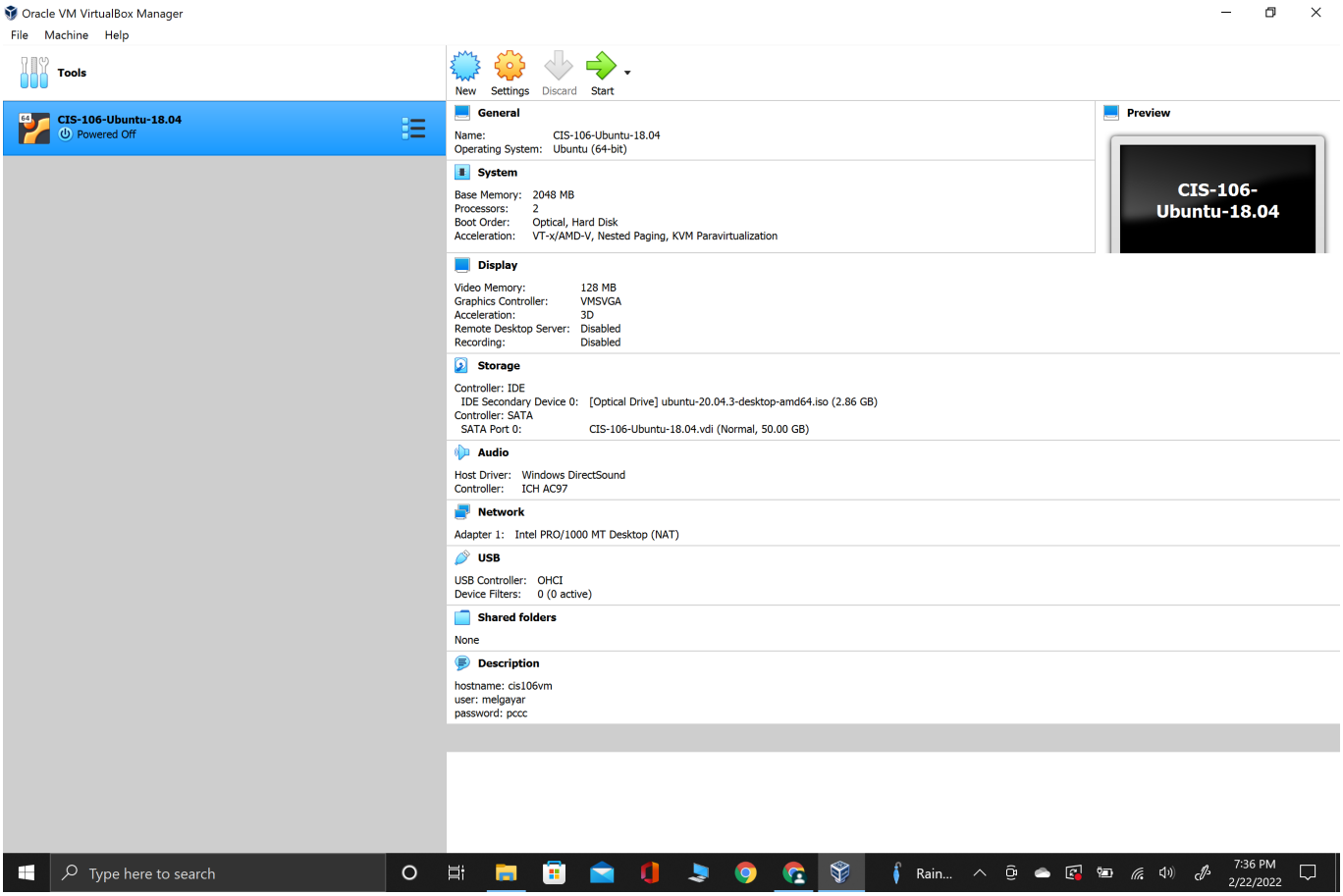
### What is virtualization

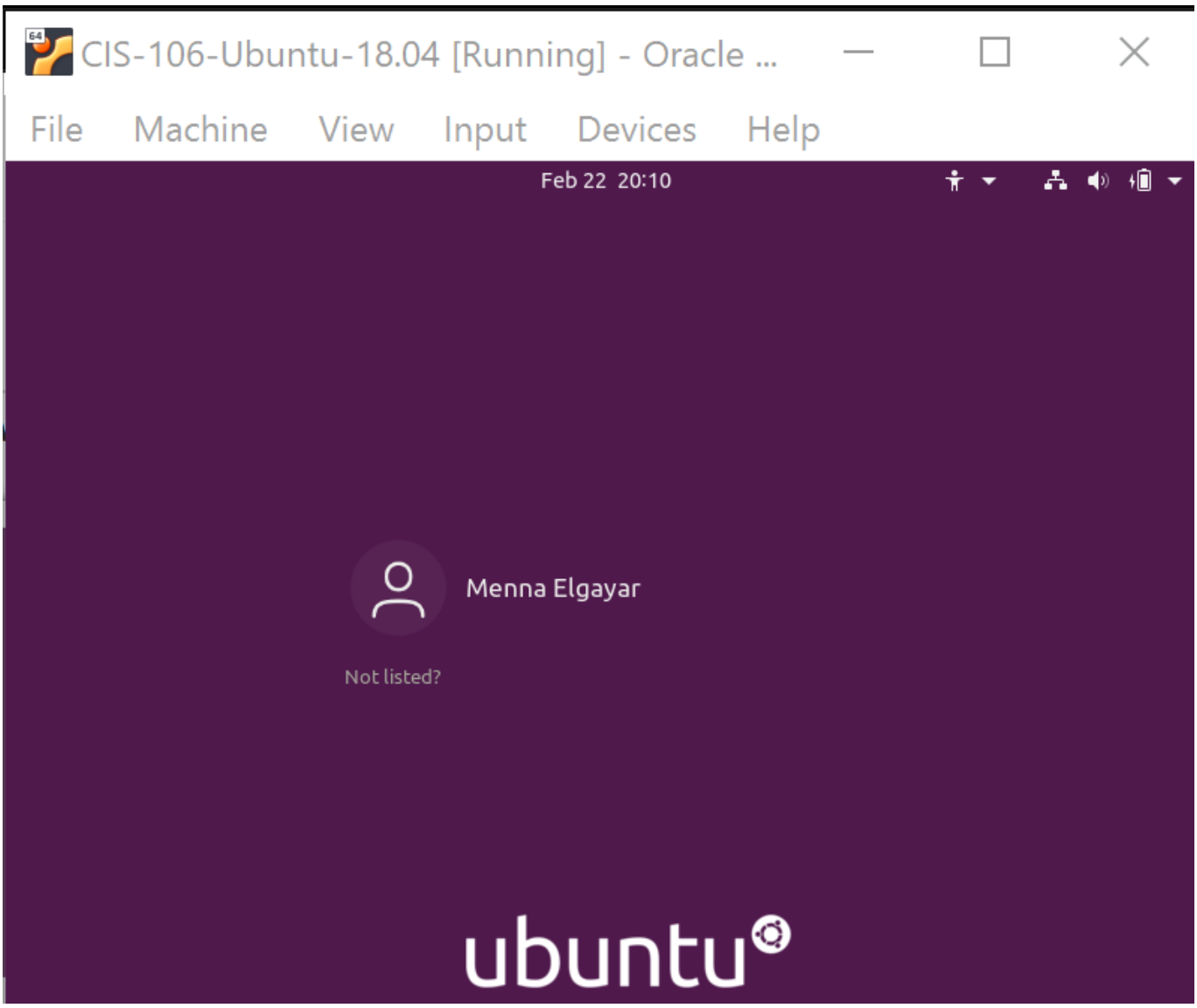
Virtualization is the replication of hardware to stimulate a virtual machine inside a physical one.

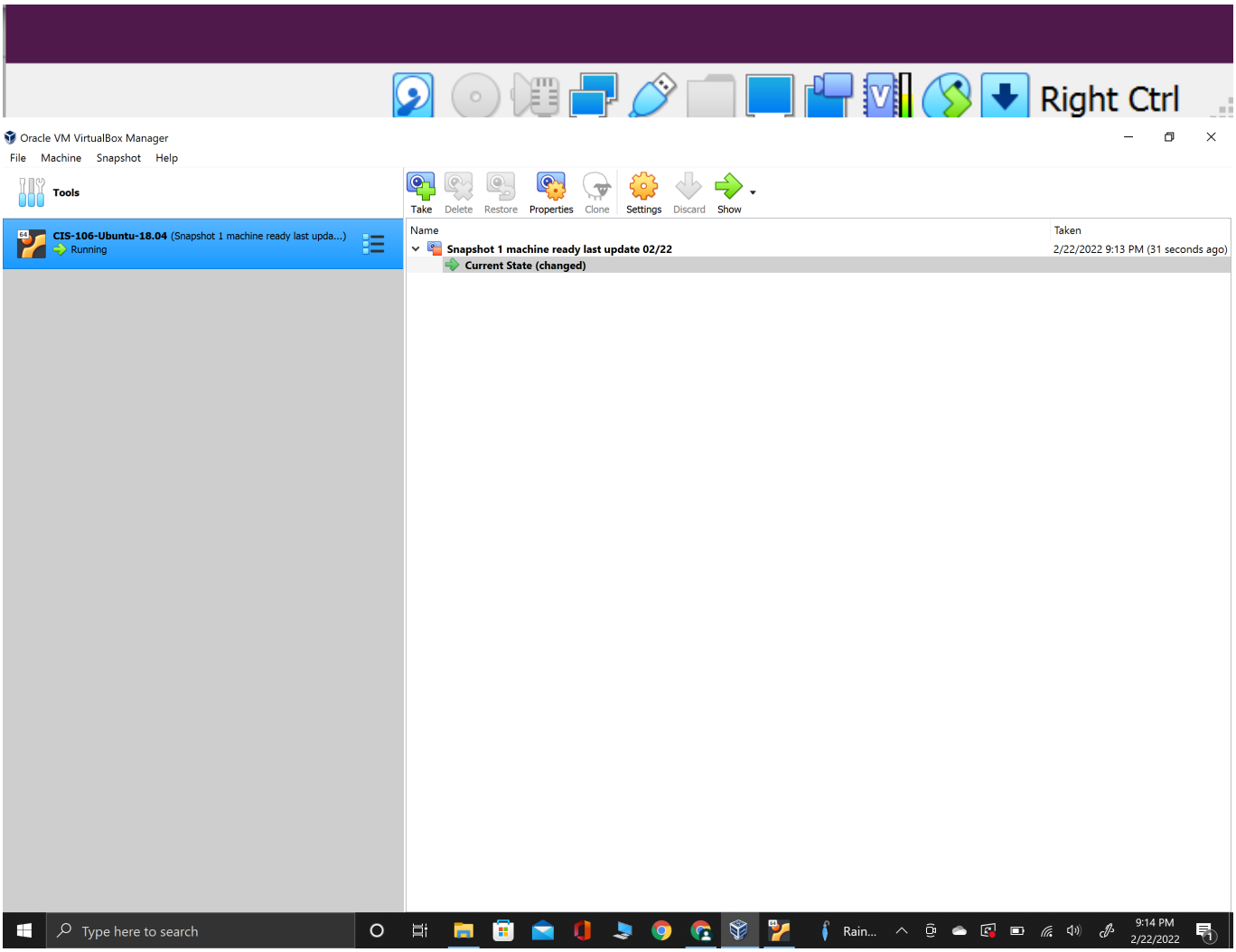
### Types of virtualization

There are two types of virtualization,those are server side and client side

## Installing Ubuntu in Virtualbox


Oracle VM VirtualBox Manager
File Machine Help
Tools
CIS-106-Ubuntu-18.04
Powered Off
New Settings Discard Start
General
Name: CIS-106-Ubuntu-18.04
Operating System: Ubuntu (64-bit)
System
Base Memory: 2048 MB
Processors: 2
Boot Order: Optical, Hard Disk
Acceleration: VT-x/AMD-V, Nested Paging, KVM Paravirtualization
Preview
CIS-106-Ubuntu-18.04
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] ubuntu-20.04.3-desktop-amd64.iso (2.86 GB)
Controller: SATA
SATA Port 0: CIS-106-Ubuntu-18.04.vdi (Normal, 50.00 GB)
Audio
Host Driver: Windows DirectSound
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
hostname: cis106vm
user: melgayar
password: pccc
Type here to search
Rain...
7:36 PM
2/22/2022


CIS-106-Ubuntu-18.04 [Running] - Oracle ...
File Machine View Input Devices Help
Feb 22 20:10
Menna Elgayar
Not listed?
ubuntu




## What is the raspberry pi

It is the smallest computer to exist, it can be used to build your own project from a robot to a security system camera.

### A bulleted list of different models

- Raspberry Pi Zero
- Raspberry Pi Platform
- Raspberry Pi 2B
- Raspberry Pi 3B
- Raspberry Pi 3B+
- Raspberry Pi 4

## Specs of the latest model (Raspberry pi 4 or 400)

- Broadcom BCM2711 quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.8GHz.
- 4GB LPDDR4-3200.
- Dual-band (2.4GHz and 5.0GHz) IEEE 802.11b/g/n/ac wireless LAN.
- Bluetooth 5.0, BLE.
- Gigabit Ethernet.
- 2 × USB 3.0 and 1 × USB 2.0 ports.
- Horizontal 40-pin GPIO header.

- 2 × micro HDMI ports (supports up to 4Kp60)

## Bulleted listed of 5 projects you can do with a raspberry pi.

- You can build a hacking machine using an applicable operating system
- You can build a printer
- You can build and control a robot
- you can use it as a media centers, game consoles, routers.
- you can build a solar powered bitcoin miner