

Week Report 2

Summary of Presentations

The basics of virtualization

- **What is virtualization**

Replication on hardware to simulate virtual machines inside a physical machine

- **Types of virtualization**

client-side virtualization server-side virtualization

The big difference between this two is where the virtualization takes place. That's it!

Server-side virtualization

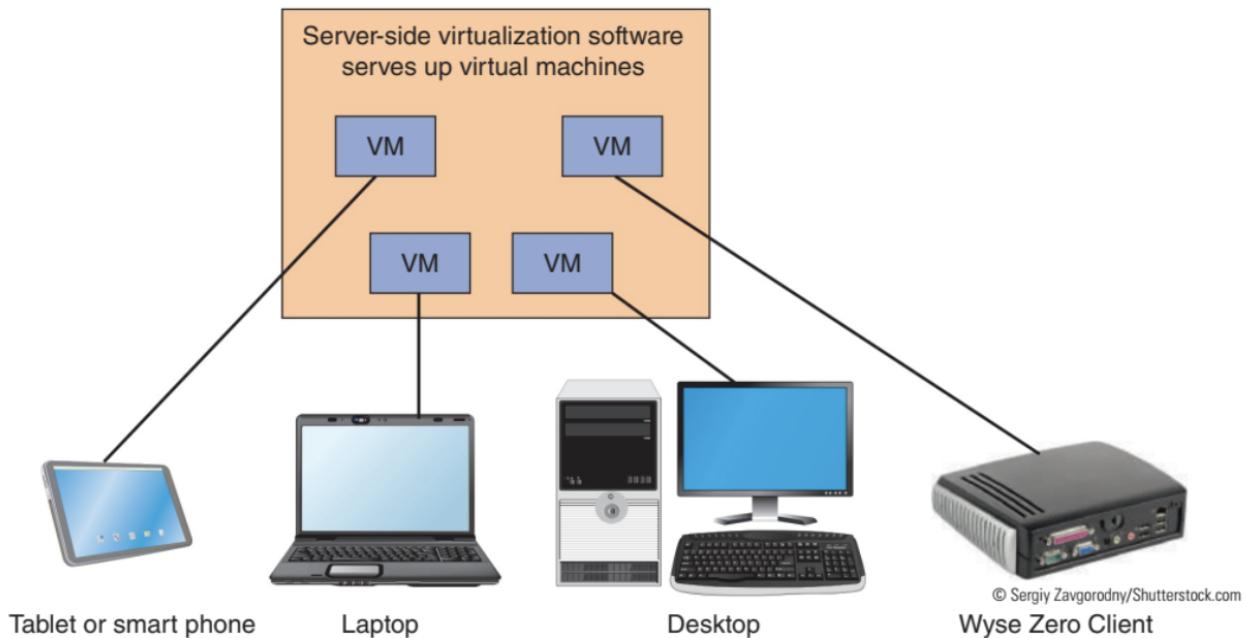


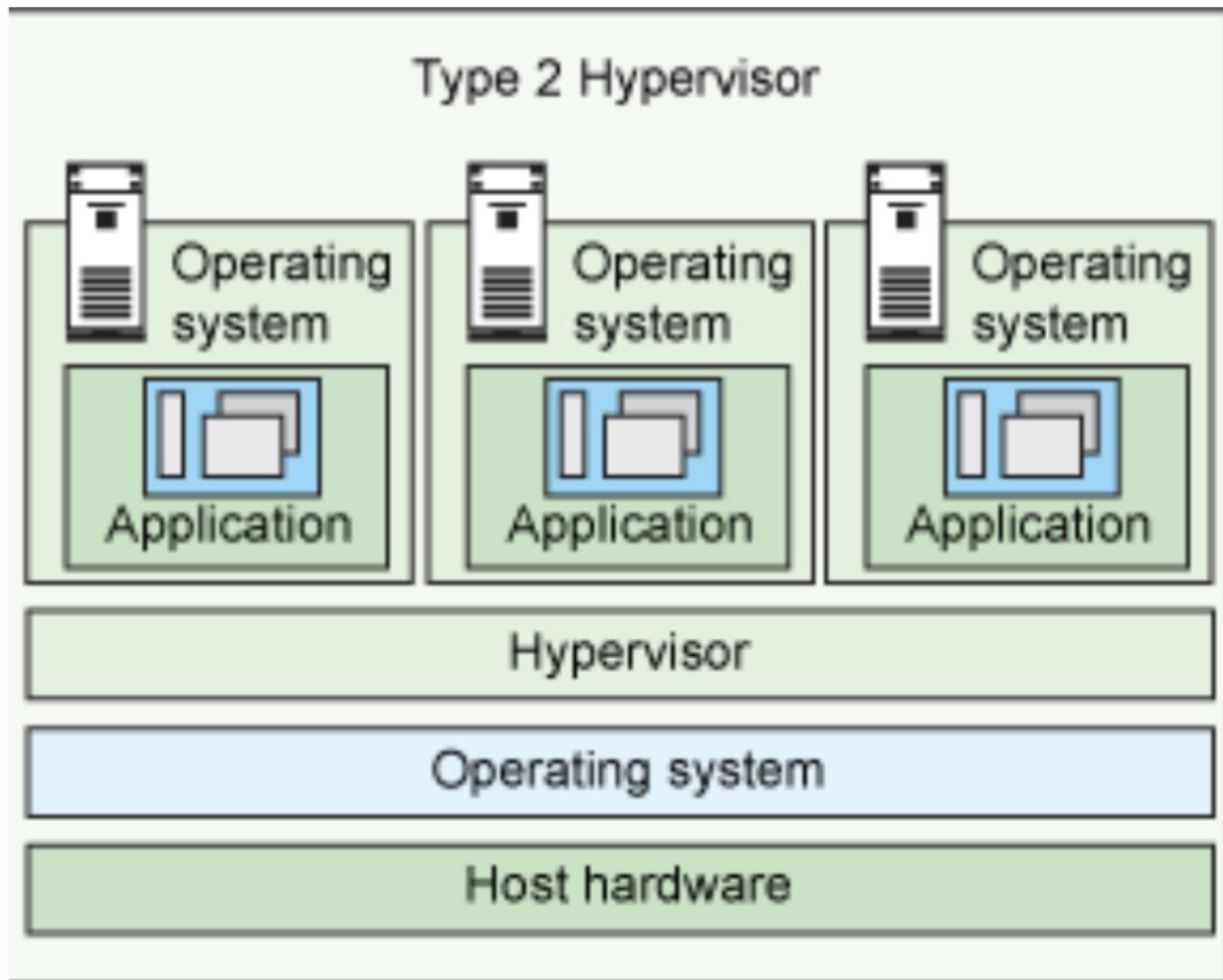
Figure 20-1 Server-side virtualization provides a virtual desktop to each user

- For example: Our school uses this server-side platform using (VMware ESXi) with (VDI) virtual desktop infrastructure. And provides "Thin clients" and "Zero clients" for students in the classrooms.

Client-side virtualization

- Software installed on a computer to manage virtual machines

- For client-side virtualization, the computer needs:
 - A hypervisor (software that allows the management of virtual machines)
 - Hardware support
- Capable CPU
- Enough Ram
- Enough Storage



- For this course we will be using Type 2 Hypervisor.

Which is software that runs on a Host Operating System. Ex:

VMware Workstation Player/Pro Oracle VirtualBox

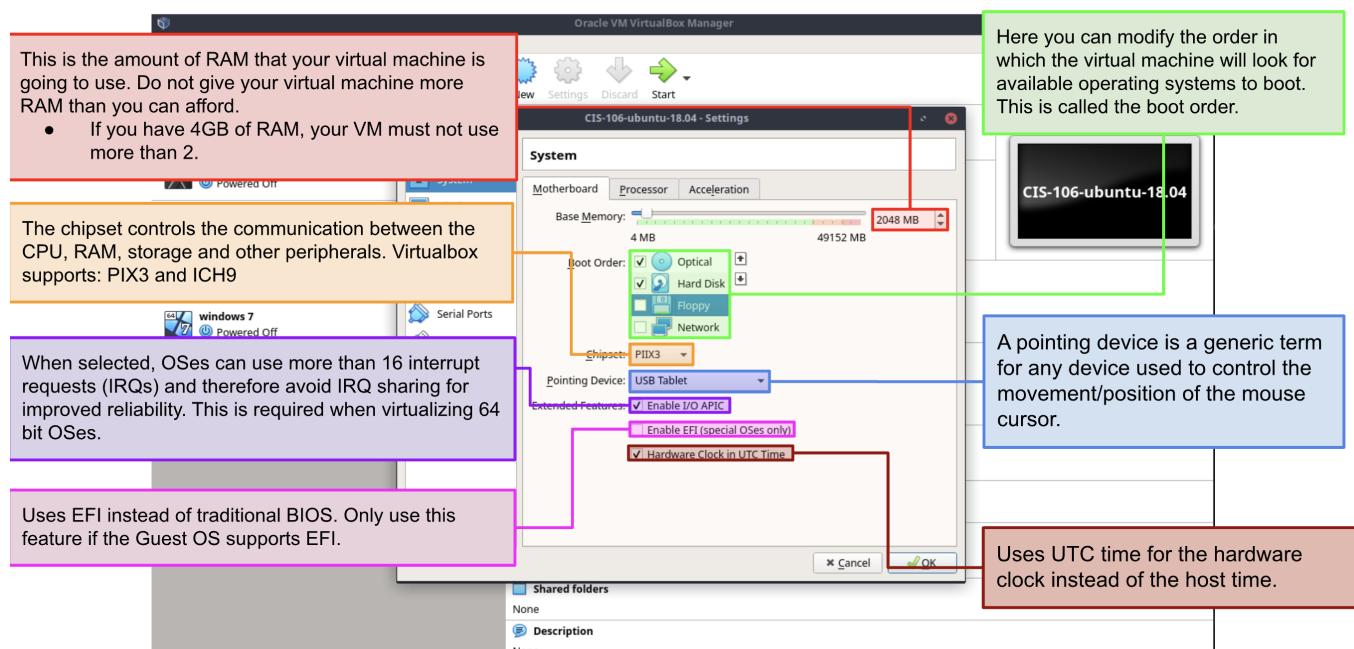
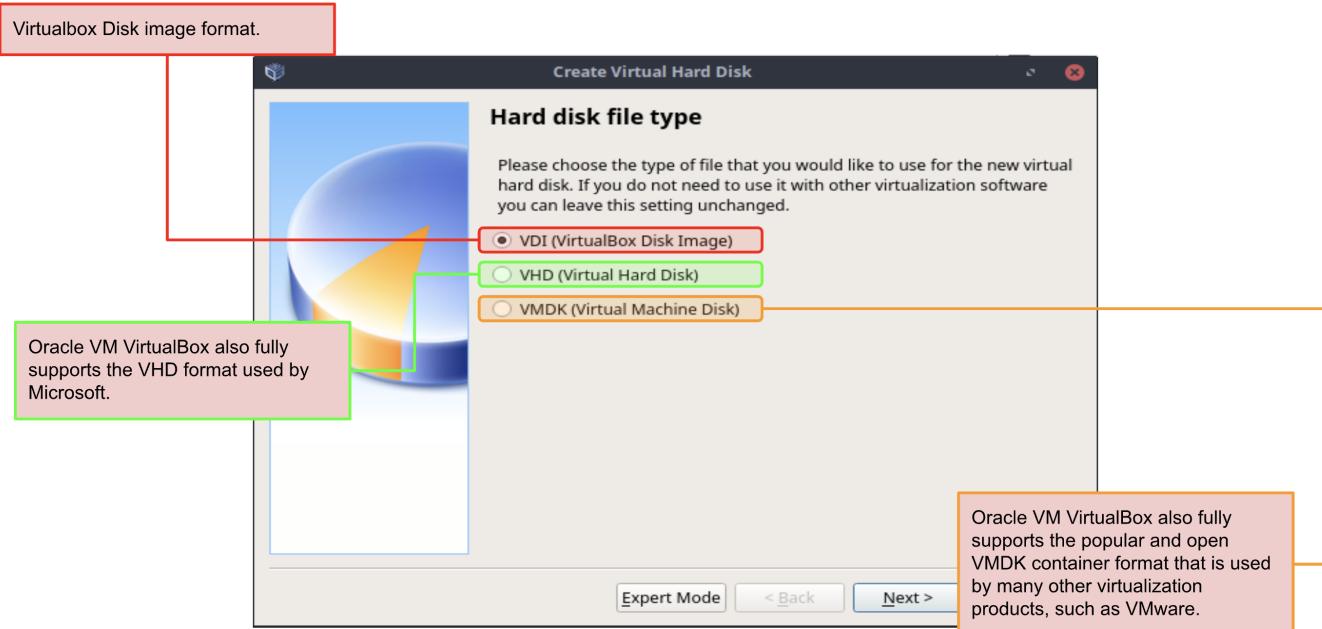
- For the course We will use: Oracle VirtualBox

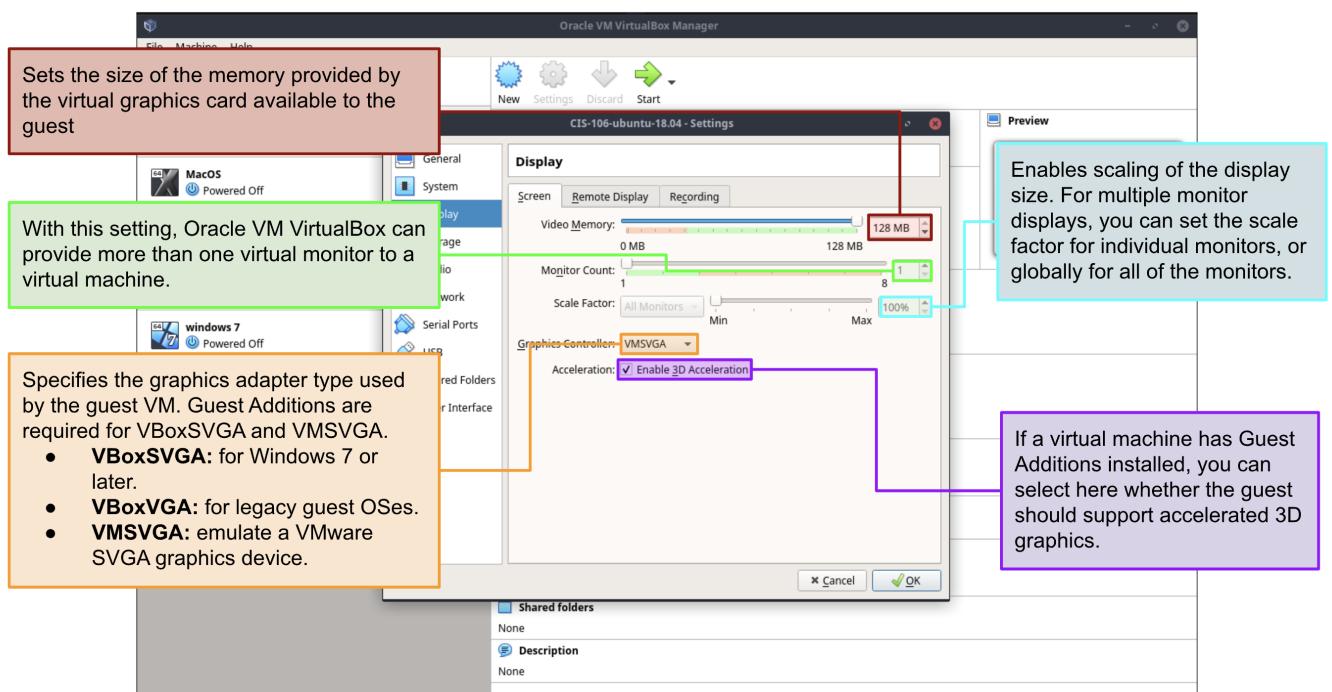
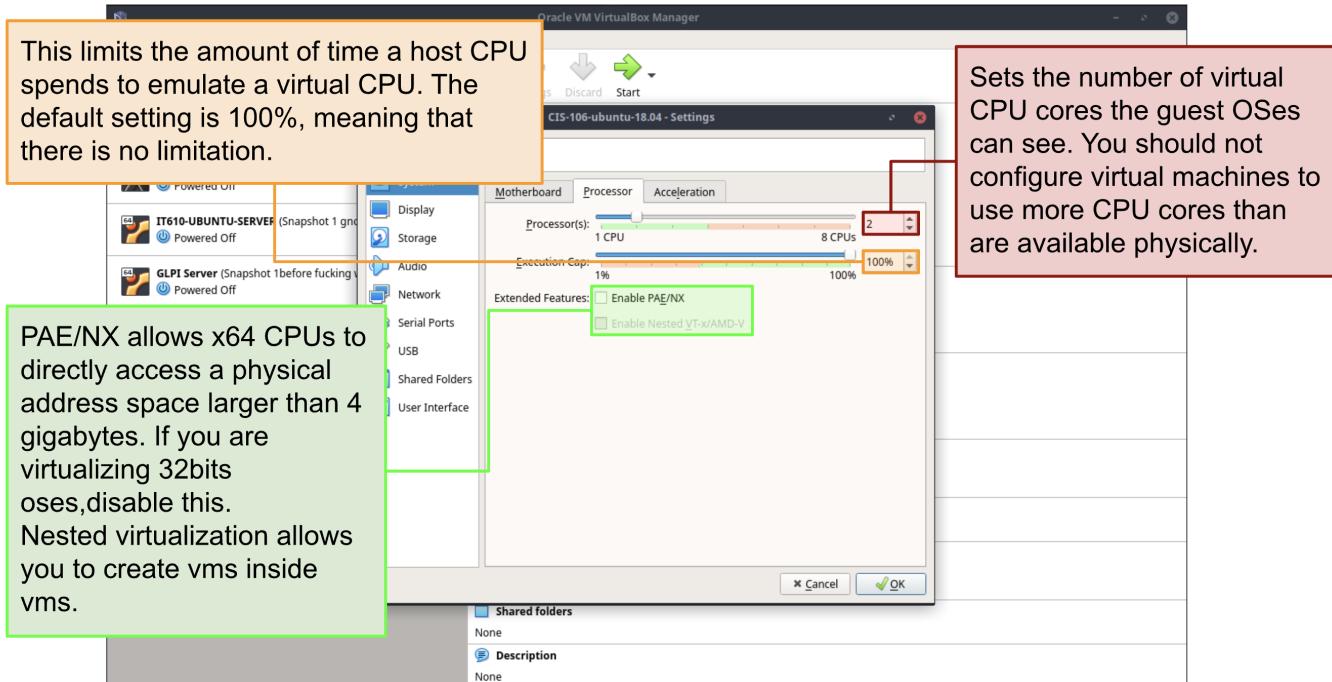
Some of the benefits of virtualization are:

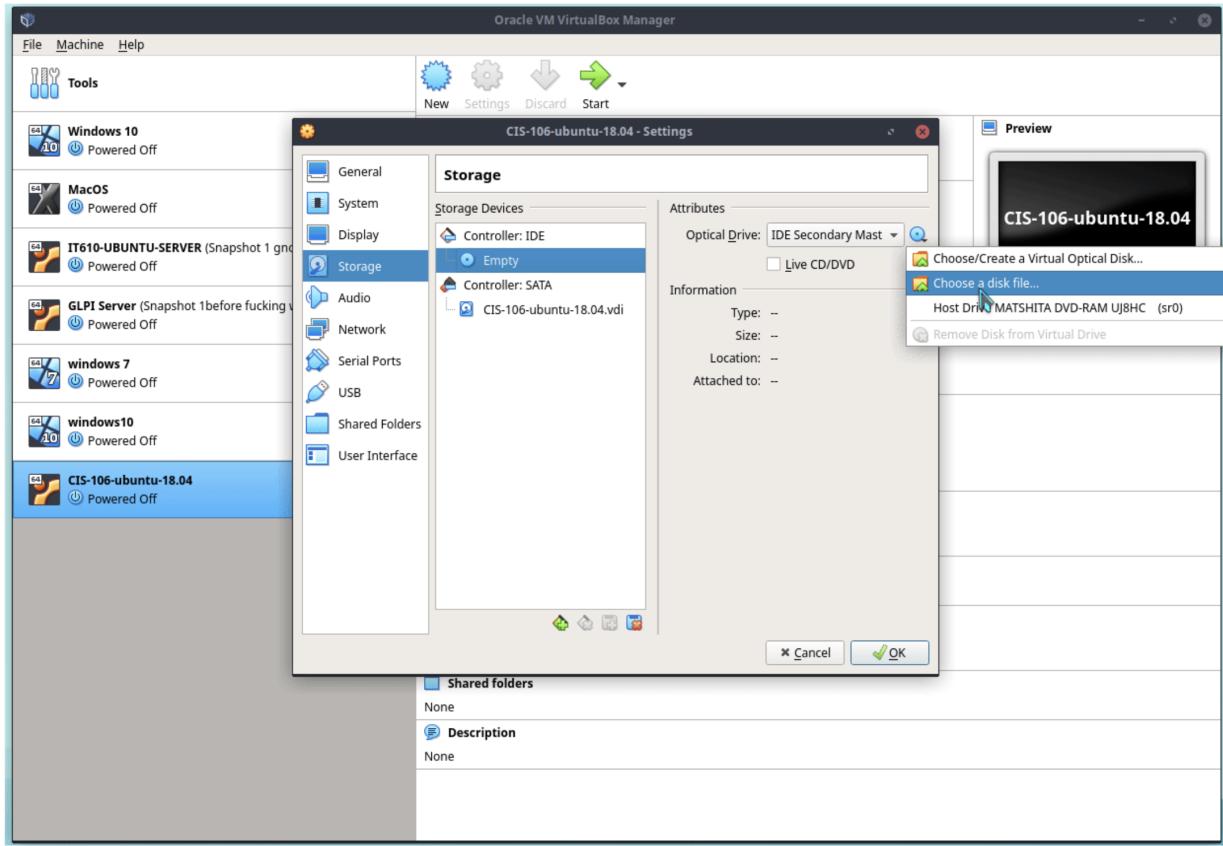
- Allows multiple OS.
- Allows applications to be tested before installing them on a host machine.
- Reduces the costs by decreasing the physical hardware that must be purchased for a network.

- Offers the chance to experiment with untested programs without infecting machines with malicious software or viruses.
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Installing Ubuntu in Virtualbox





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What is the raspberry pi

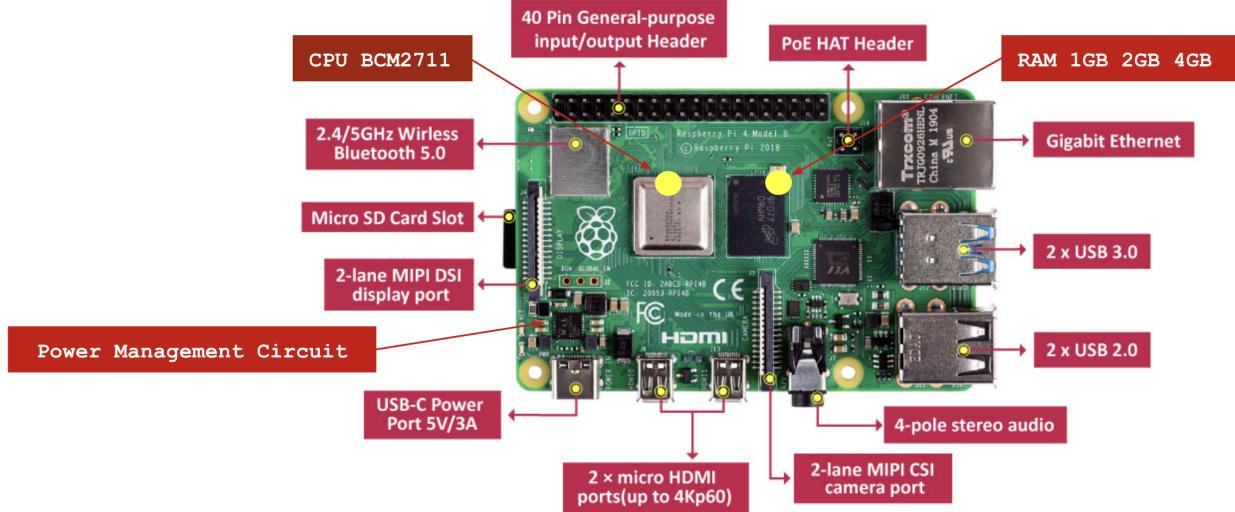
A Raspberry Pi is a low-cost, credit card-size, and single board computer that plugs into computer monitor or TV, and uses a standard keyboard and mouse. You can do anything you do in a typical normal size computer.

A bulleted list of different models

- Raspberry Pi 1 model B
- Raspberry Pi 1 model A
- Raspberry Pi 1 model B+
- Raspberry Pi 1 model A+
- Raspberry Pi 2 model B
- Raspberry Pi Zero
- Raspberry Pi Zero WH
- Raspberry Pi Zero 2W
- Raspberry Pi 3 model A
- Raspberry Pi 3 model B
- Raspberry Pi 3 model B+
- Raspberry Pi 4 B (1GB)
- Raspberry Pi 4 B (2GB)
- Raspberry Pi 4 B (4GB)
- Raspberry Pi 4 B (8GB)
- Raspberry Pi 400
- Raspberry Pi Pico

Specs of the latest model (Raspberry pi 4 or 400) you can use a screenshot.

The components of the Pi | Raspberry PI 4



Bulleted listed of 5 projects you can do with a raspberry pi. Use the internet to find this information.

- Solar-Powered Pi
- Game Console
- Language Translator
- Security Camera
- Pi Touchscreen Tablet
- Photo Frame
- Wall Mounted Google Calendar*