Raspberry Pi
Lesson 1
Getting Started with Raspberry Pi

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Contents

Lesson 1: Getting Started with Raspberry Pi

Basic Requirement

What is Raspberry Pi?

Connecting It Up

First Time Configuration

Exploring The Debian Desktop

Wireless Connection Setup

Shutdown Raspberry Pi
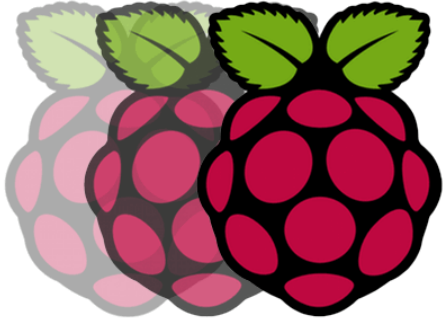
Playing Games on Raspberry Pi

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Basic Requirements

Lesson 1: Getting Started with Raspberry Pi
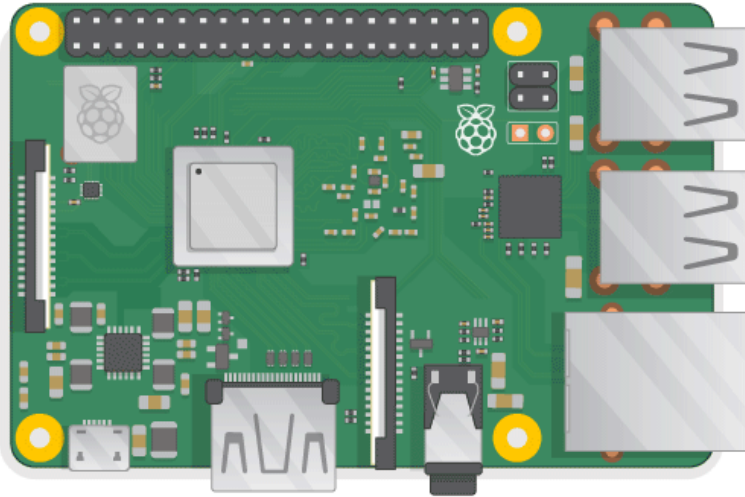
Parts Required:

- Raspberry Pi

- Micro SD Card with NOOBS

- USB Keyboard and Mouse

- HDMI to VGA Converter

- 5V, 2.5A Adapter with micro USB Cable

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What is Raspberry Pi?

Lesson 1: Getting Started with Raspberry Pi

- Pocket-sized 'computer'
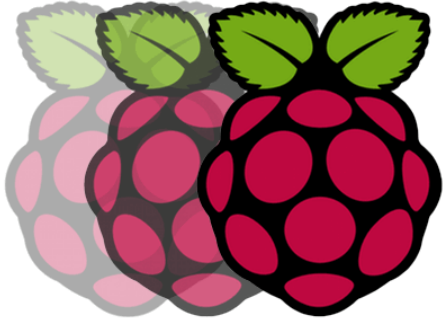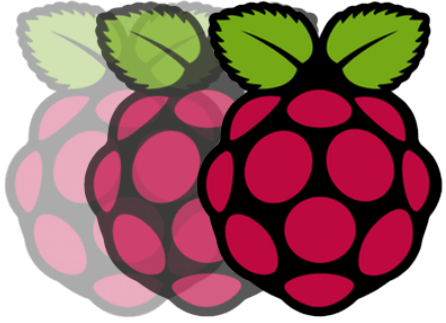- Ideal to learn and experiment
- Allow creativity to soar

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What is Raspberry Pi?

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Raspberry Pi Applications

- General purpose computing
- Learning to program
- Project platform
- Product prototyping
- Media center
- "Bare metal" computer hacking
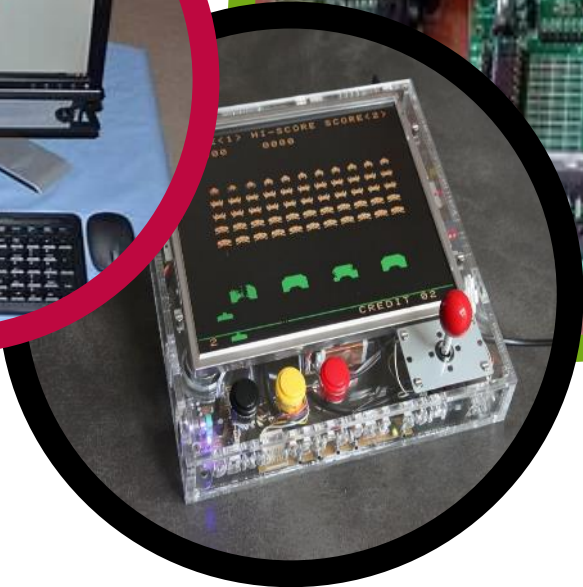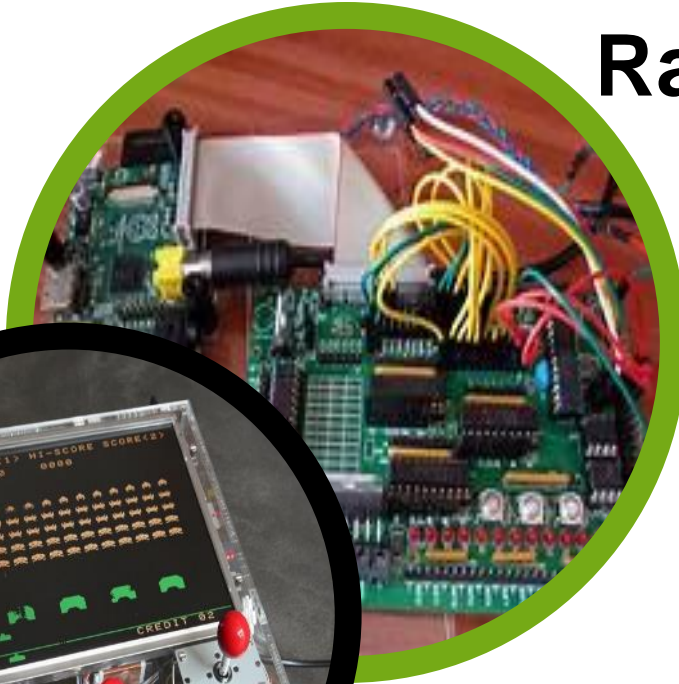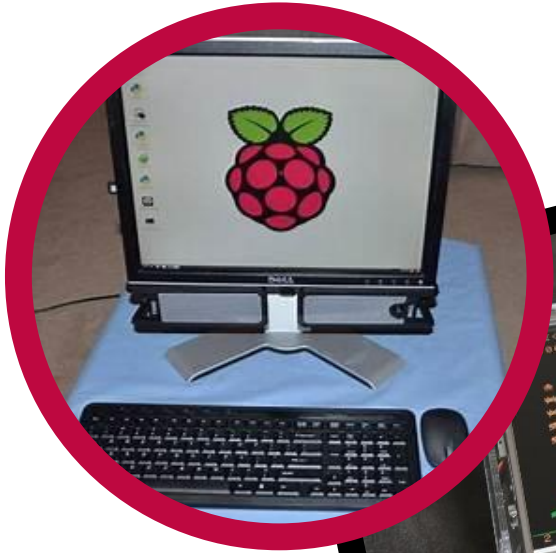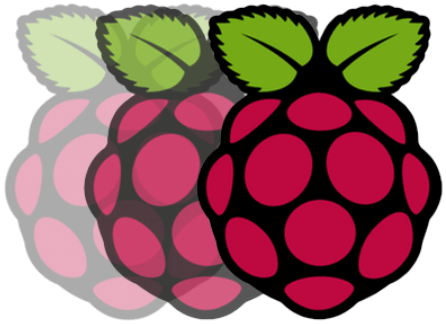- Retro gaming

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What is Raspberry Pi?

Lesson 1: Getting Started with Raspberry Pi
Raspberry Pi Hardware

GPIO PINS
Sensors, Button, and etc

USB
USB Hub, Keyboard, Mouse

The Processor
Heart/Brain

Camera
Picture

Network
Internet

POWER
microUSB

HDMI
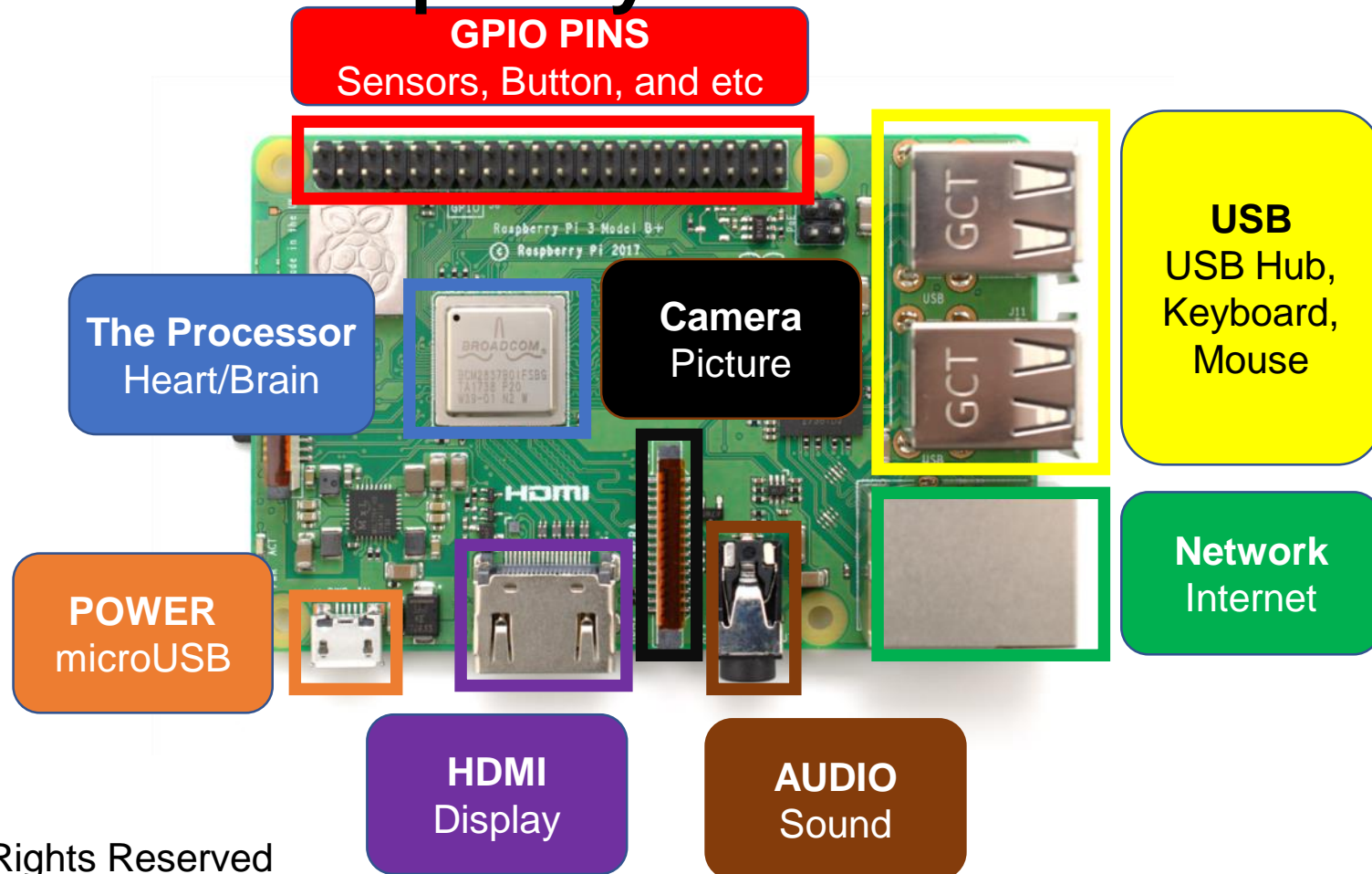Display

AUDIO
Sound

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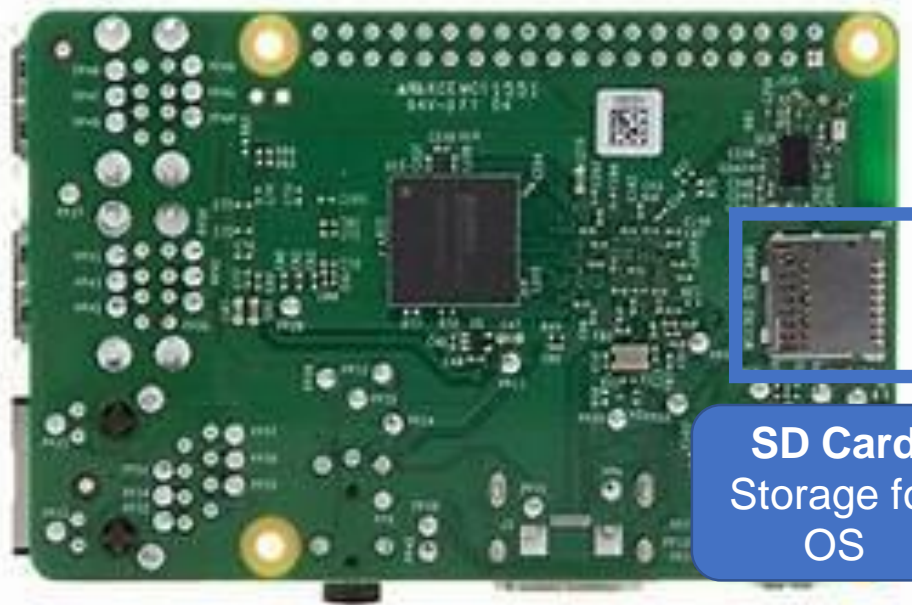# What is Raspberry Pi?

Lesson 1: Getting Started with Raspberry Pi

Raspberry Pi Hardware

SD Card
Storage for OS

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Connecting It Up
Lesson 1: Getting Started with Raspberry Pi

- Insert an SD card pre-installed with NOOBS

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Connecting It Up
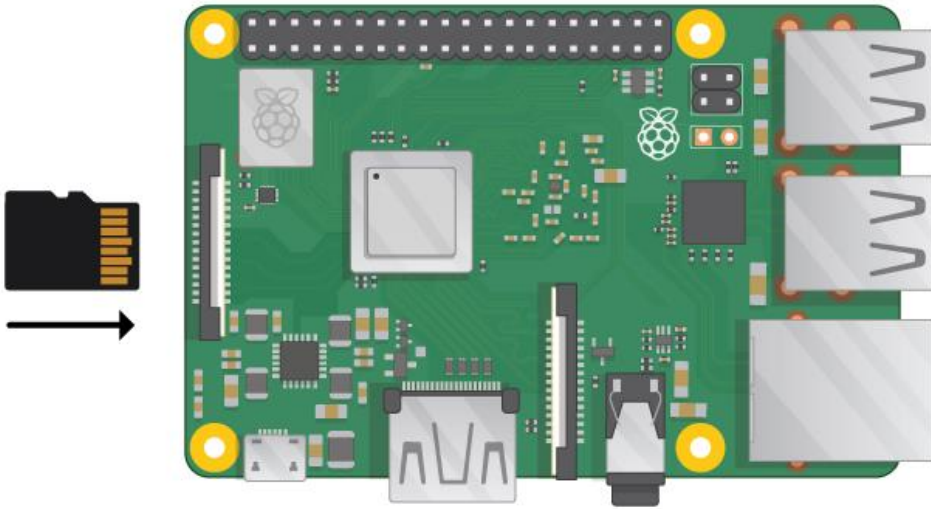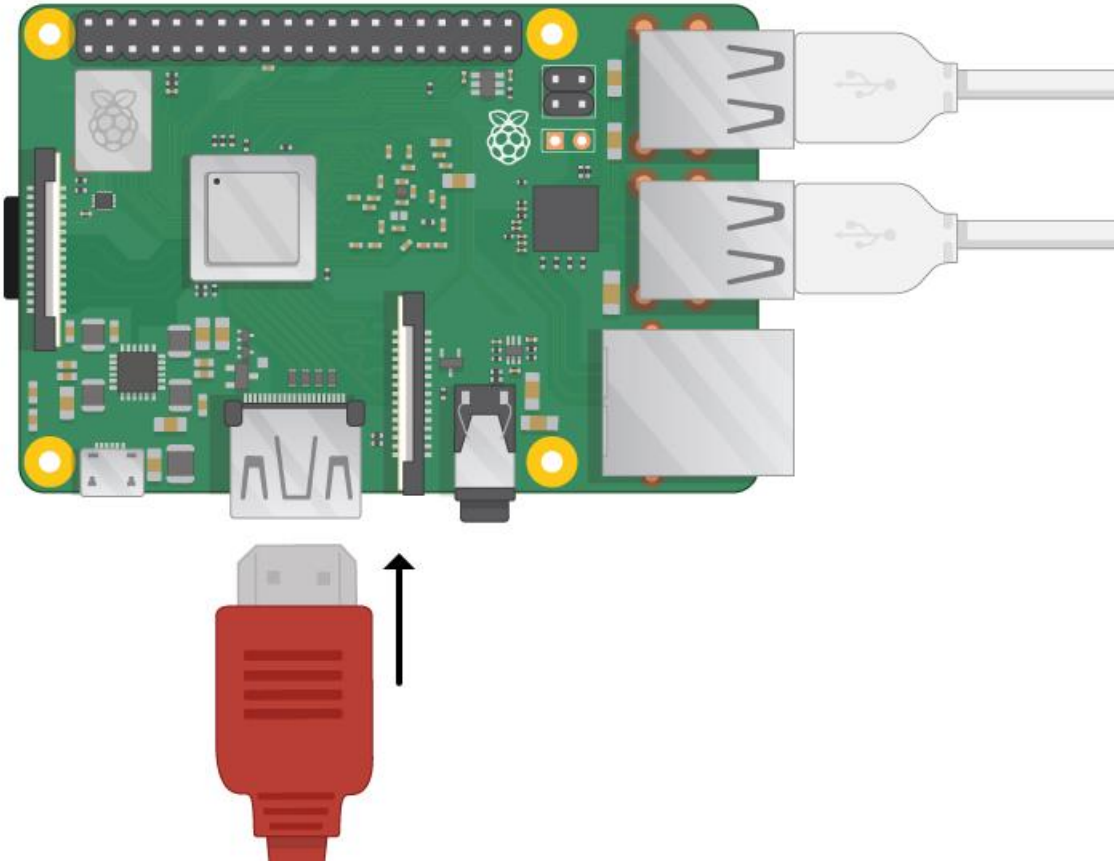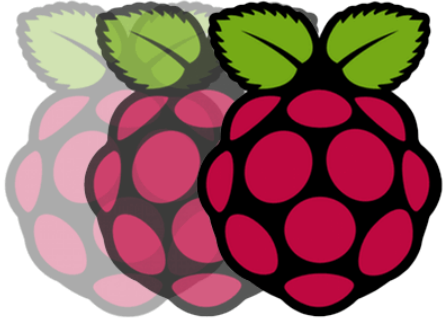## Lesson 1: Getting Started with Raspberry Pi
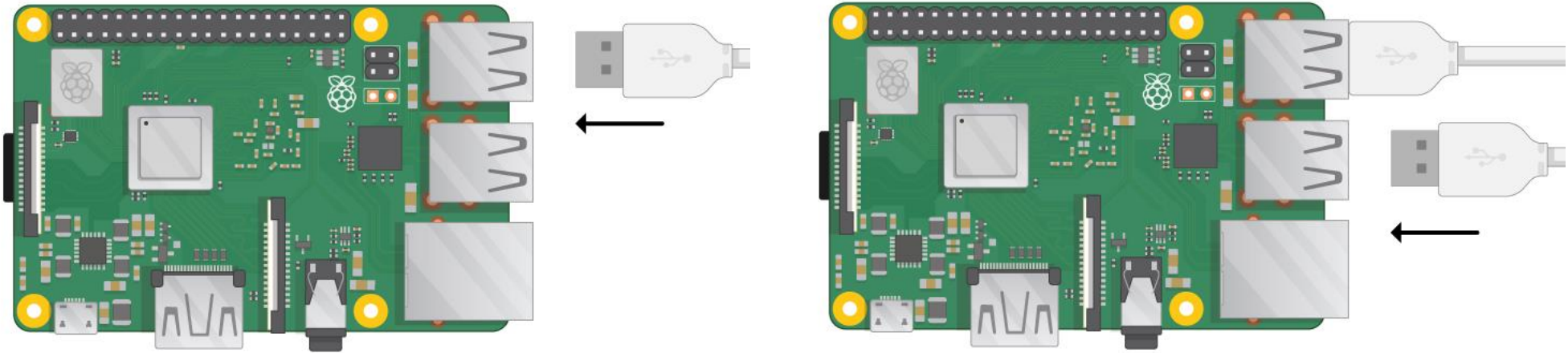
- Connect the USB Keyboard and Mouse

Connecting It Up
Lesson 1: Getting Started with Raspberry Pi

- Connect the monitor cable to the Raspberry Pi HDMI port

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Connecting It Up

Lesson 1: Getting Started with Raspberry Pi

- Connect the monitor cable to the Raspberry Pi HDMI port

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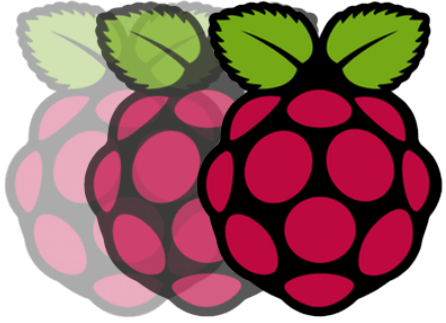
Connecting It Up

Lesson 1: Getting Started with Raspberry Pi

Indication

Label	LED Color	Details
ACT	Green	SD Card Activity
Power	Red	Power

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First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Installing Raspbian

1 Select **Raspbian Full**

2 Click **Install**

3 Click **Yes**

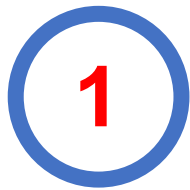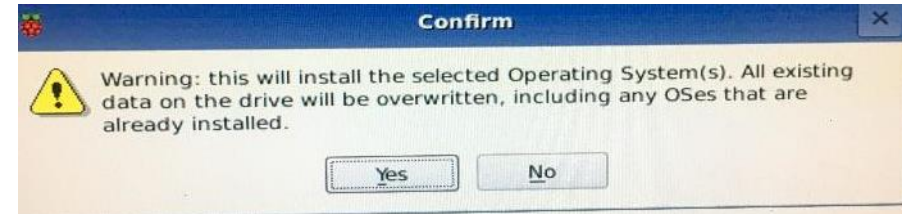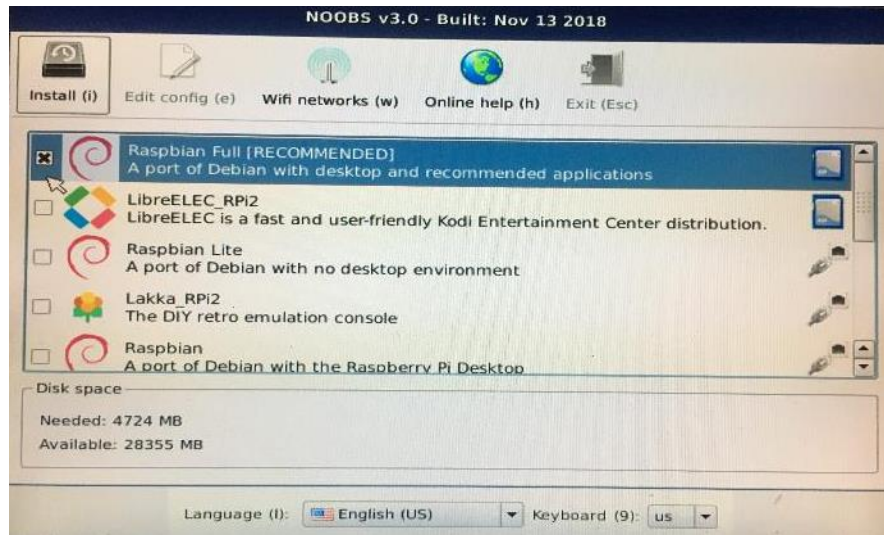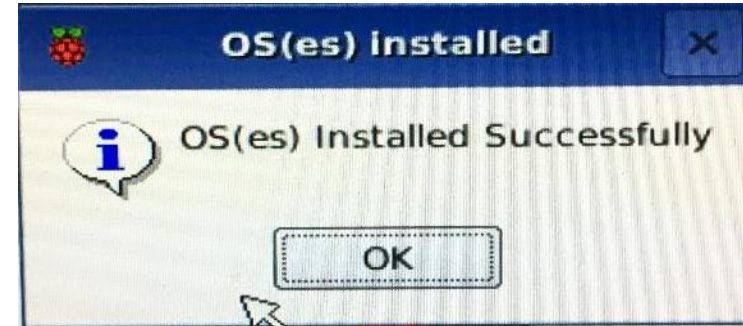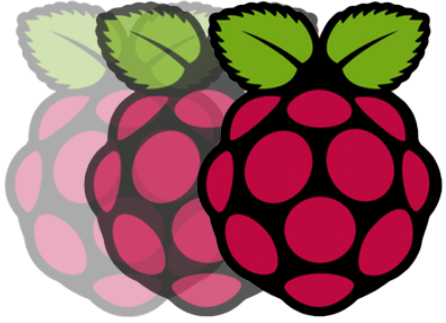# First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Installing Raspbian

Welcome to Raspberry Pi

Please wait while the software is installed on your SD card — this will take a few minutes.

Raspbian: Creating filesystem (ext4)

0%

18 MB of 4136 MB written (3.3 MB/sec)

OS(es) Installed

OS(es) Installed Successfully

OK
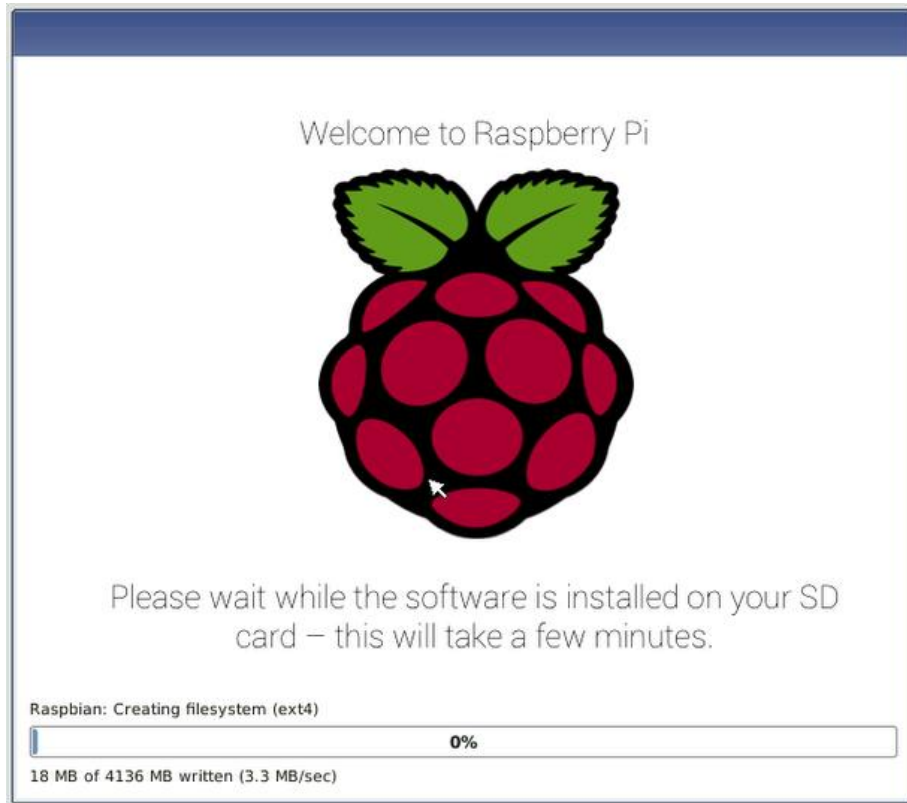
4

Splash screen; indicate the installation process

5

Pop-Up windows once the process of the installation finished

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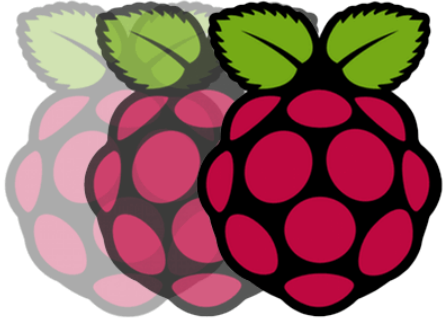# First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Personalized Your Pi

Welcome to Raspberry Pi

Welcome to the Raspberry Pi Desktop!

Before you start using it, there are a few things to set up.

Press 'Next' to get started.

Cancel   Next

1
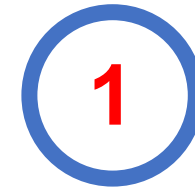
Click **Next**

First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Personalized Your Pi

Welcome to Raspberry Pi

Set Country

Enter the details of your location. This is used to set the language, time zone, keyboard and other international settings.

Country: Malaysia

Language: Malay

Timezone: Kuala Lumpur

☑ Use US keyboard

Press 'Next' when you have made your selection.

Back   Next

2

Country: **Malaysia**
Languange: **en (US)**
Timezone: **Kuala Lumpur**
Click **Next**

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First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Personalized Your Pi

Welcome to Raspberry Pi

Change Password

The default 'pi' user account currently has the password 'raspberry'. It is strongly recommended that you change this to a different password that only you know.

Enter new password:

Confirm new password:

Enter

☑ Hide characters

Press 'Next' to activate your new password.

Back   Next

3

Enter your **New Password** and Validate it

First Time Configuration
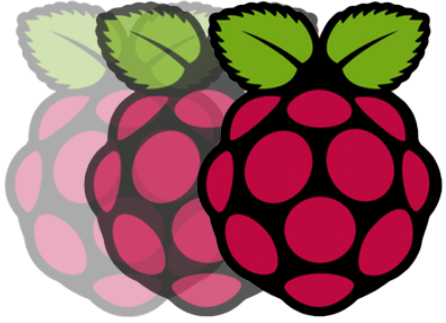## Lesson 1: Getting Started with Raspberry Pi
Personalized Your Pi

Welcome to Raspberry Pi

Set Up Screen

The desktop should fill the entire screen.
Tick the box below if your screen has a black border at the edges.

☐ This screen shows a black border around the desktop

Press 'Next' to save your setting.

The change will take effect when the Pi is restarted.

Back   Next

4

Look to your Display, any **black border** exist?
Tick if **Yes.**
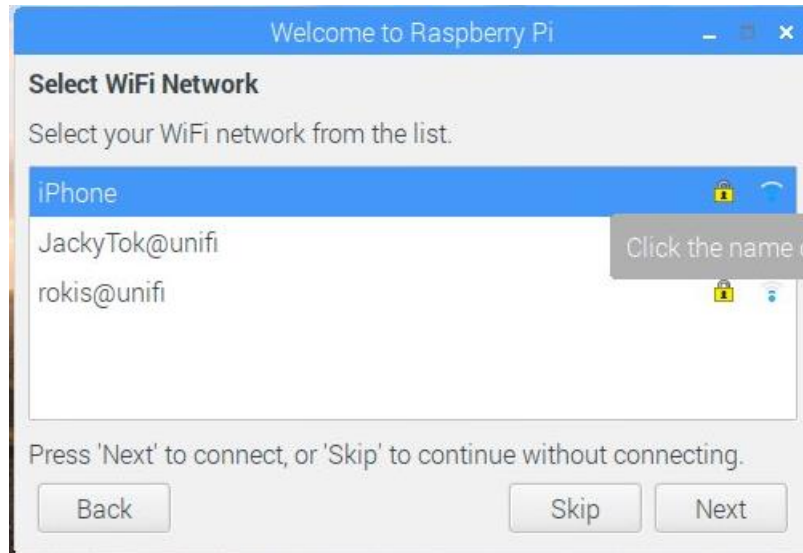Raspbian will automatically adjust for you to maximize the display

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First Time Configuration

Lesson 1: Getting Started with Raspberry Pi
Personalized Your Pi

Welcome to Raspberry Pi

Select WiFi Network

Select your WiFi network from the list.

iPhone
JackyTok@unifi
rokis@unifi

Click the name o
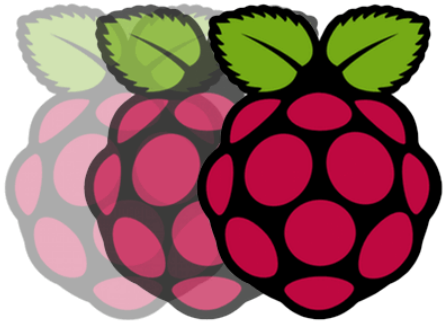
Press 'Next' to connect, or 'Skip' to continue without connecting.

Back   Skip   Next

5

Click on the available WiFi network, and click
Next – if we know the WiFi **password**.
Else, click **Skip.**

This this one of way to setup our WiFi/Network.

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First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Personalized Your Pi

6

If Our Raspberry Pi connected to network, click **Next**. Else, **Skip**.

First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Personalized Your Pi

Welcome to Raspberry Pi

Setup Complete

Your Raspberry Pi is now set up and ready to go.

Press 'Restart' to restart your Pi so the new settings will take effect.

Back   Restart

7

Click **Restart** to make all the changes takes effect.
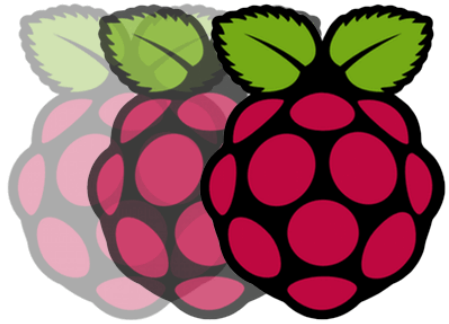
Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Welcome to Raspbian Desktop Mode
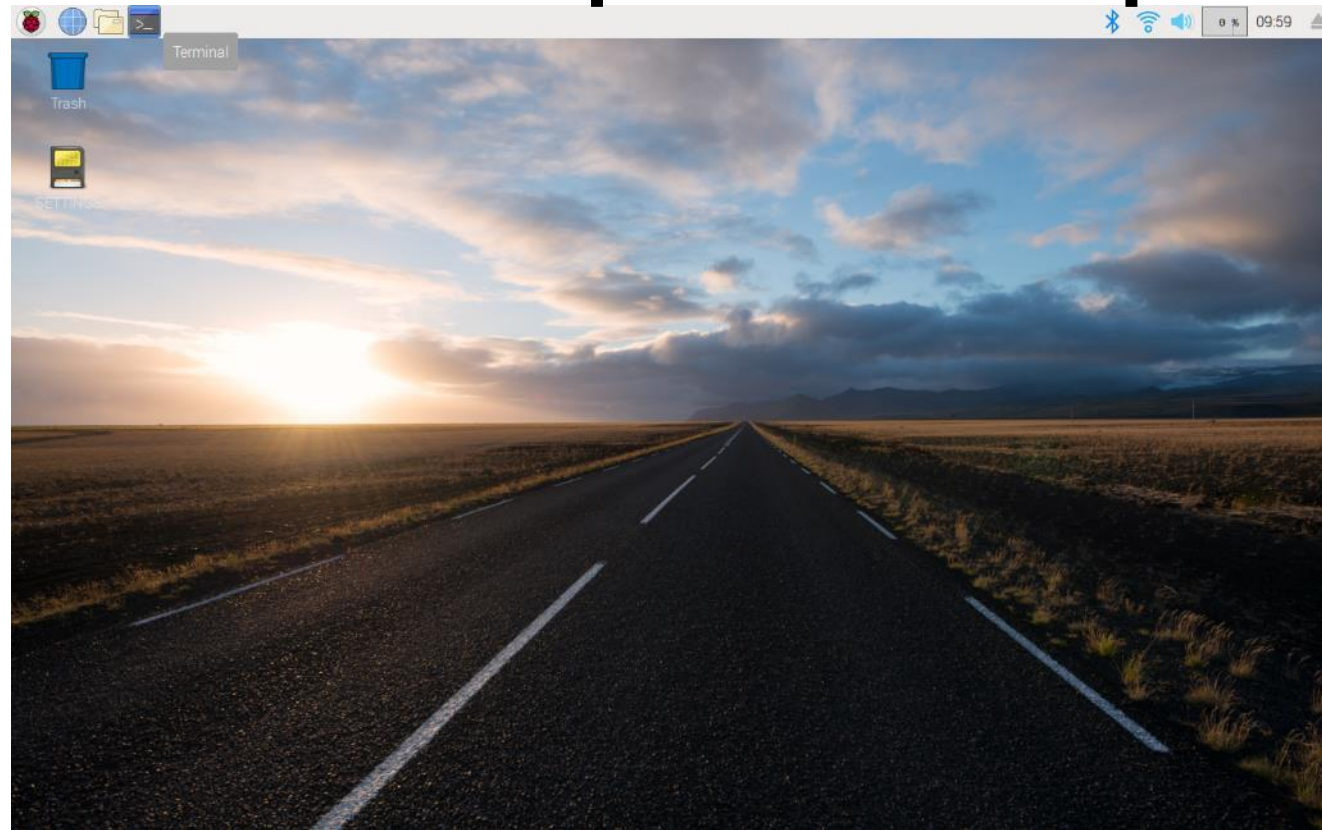
Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Your Pi, and It's Yours

1 Click on **Raspberry** Icon
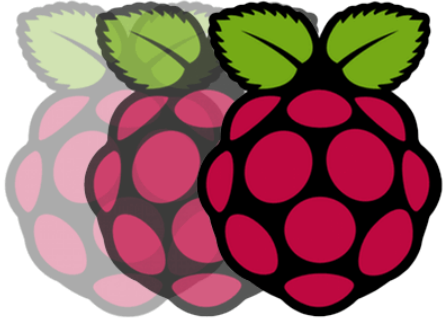
2 Select **Preference**
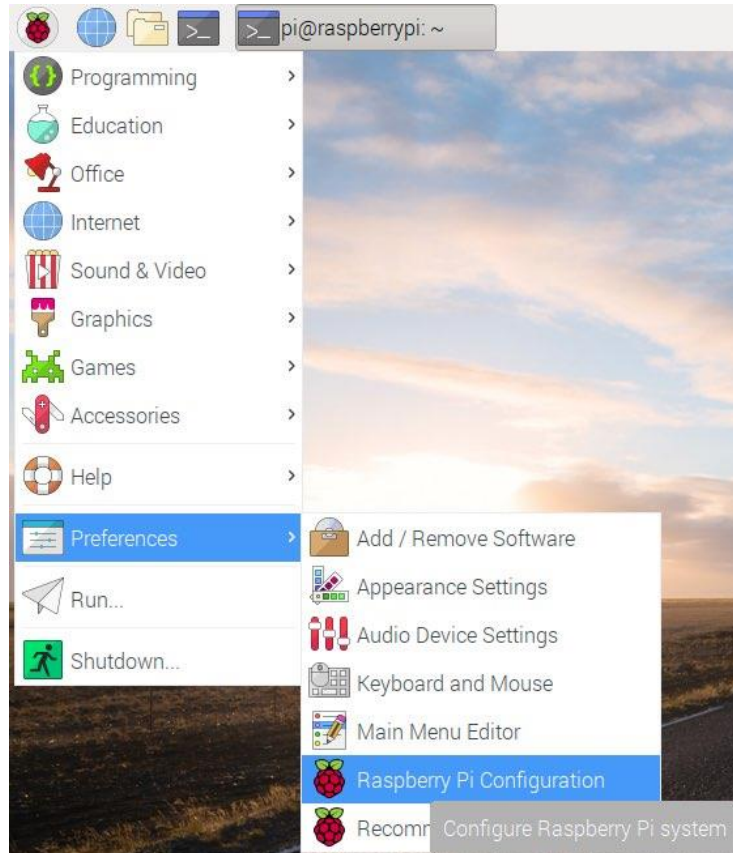
3 Click on **Raspberry Pi Configuration**

Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Your Pi, and It's Yours

4
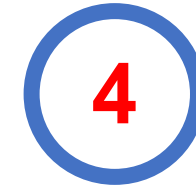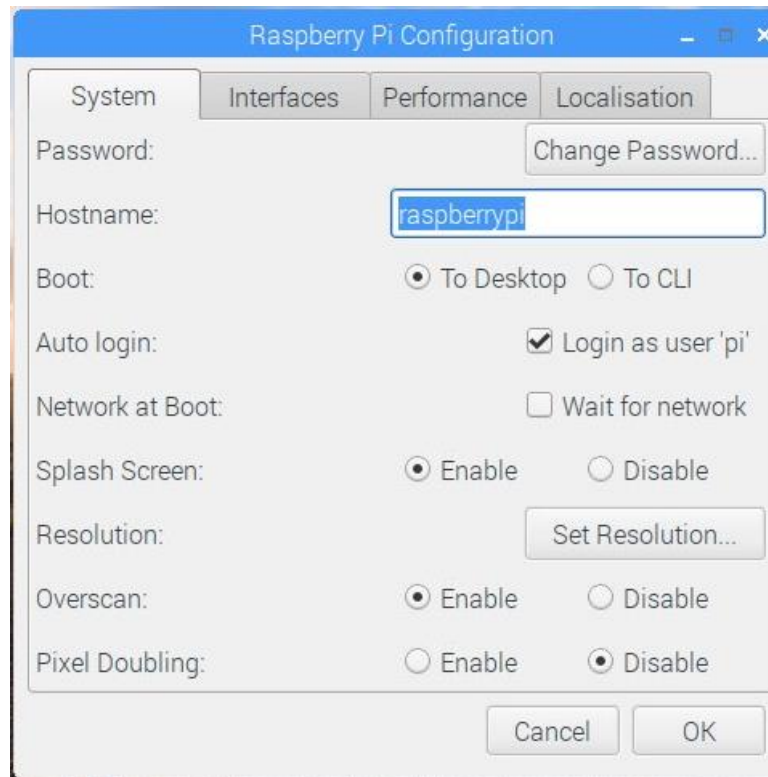
Let's rename your pi name by changing the **Hostname**
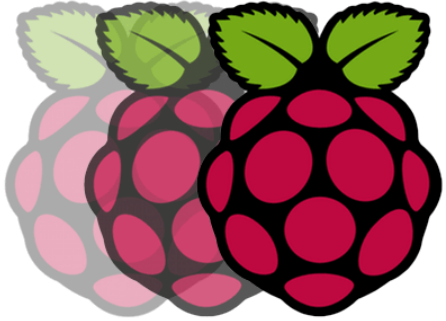
First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Your Pi, and It's Yours
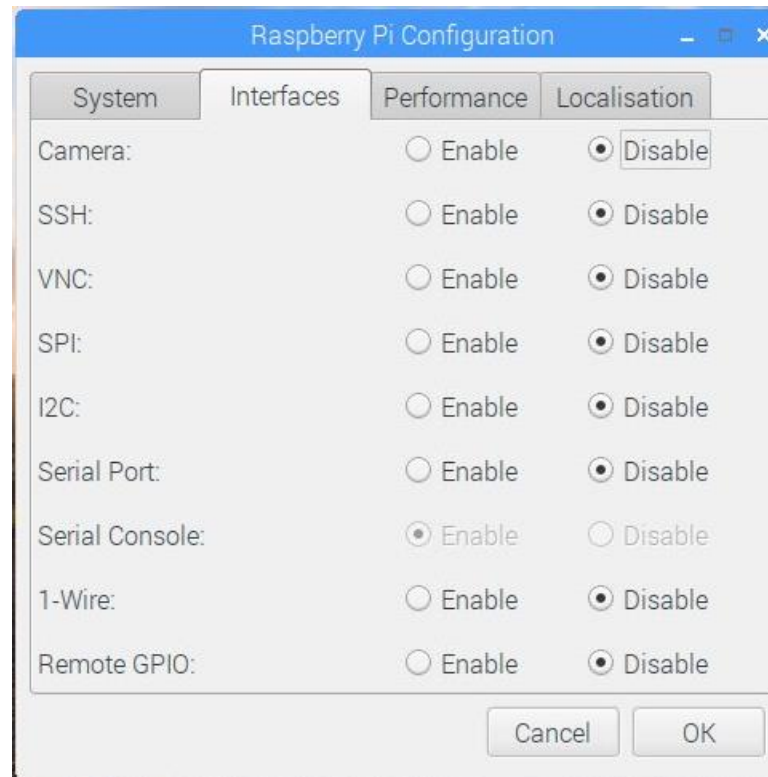
5

Raspberry allow you to control not only on your system **(Software)**, also on Interfaces **(Hardware)**

First Time Configuration

Lesson 1: Getting Started with Raspberry Pi

Your Pi, and It's Yours

6
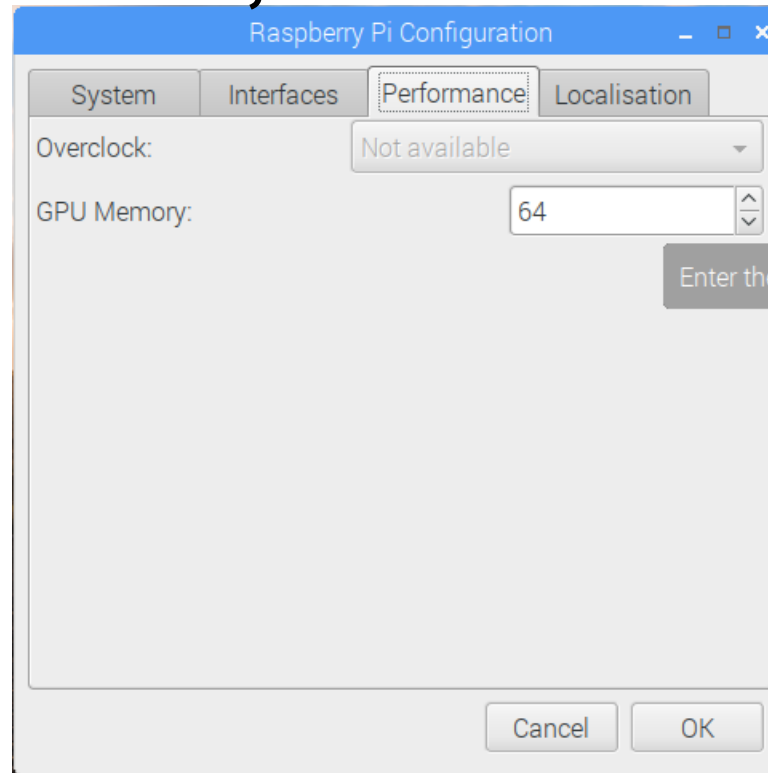
Overclocking
Improve the Performance of your Pi

First Time Configuration
Lesson 1: Getting Started with Raspberry Pi
Your Pi, and It's Yours

7

Changes on the **Localisation**; Timezone, Keyboard, and etc

Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi
Terminal

1
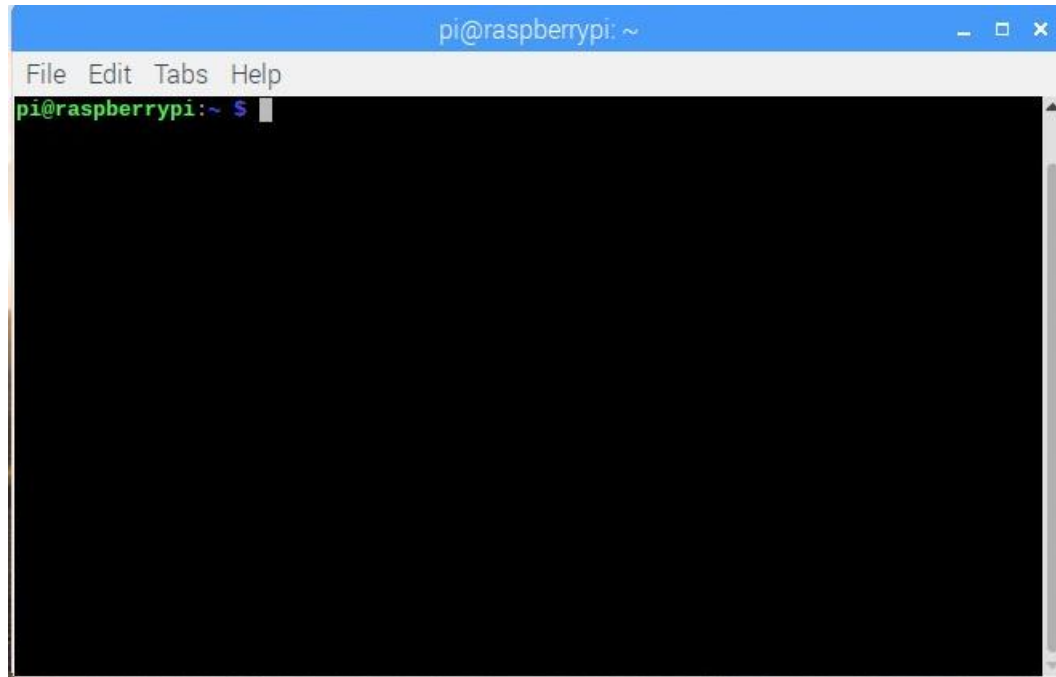
Ctrl + Alt + T
Open a new
Terminal

Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Terminal

2
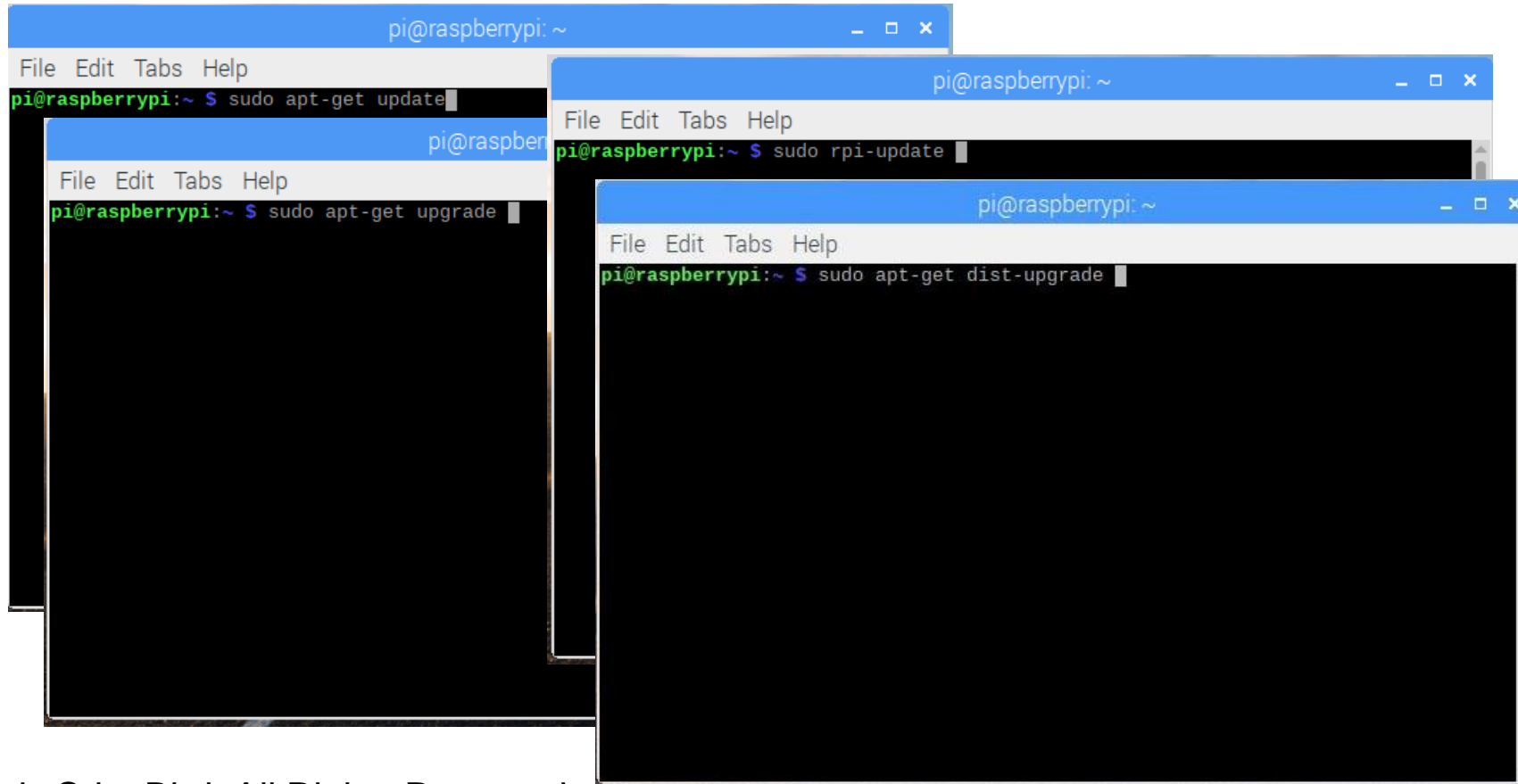
Terminal - run programs, execute scripts, manipulate files, etc.

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Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Using Teminal to Expand SD Card

1

Ctrl + Alt + T
Open a new
Terminal

2

Type:
sudo raspi-config

Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Using Teminal to Expand SD Card

3

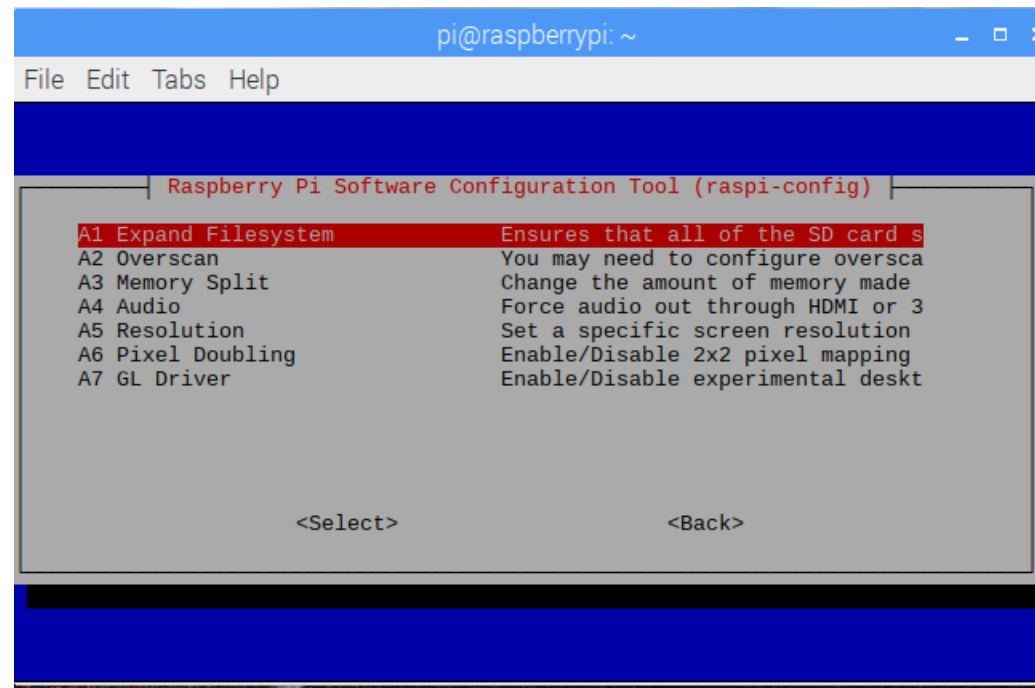Go the
Advanced Option
And
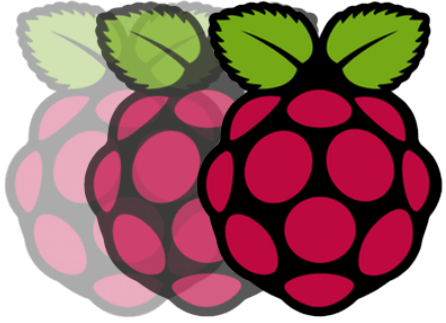Hit **Enter**

Exploring Raspbian Desktop

Lesson 1: Getting Started with Raspberry Pi

Using Teminal to Expand SD Card

4

Go the
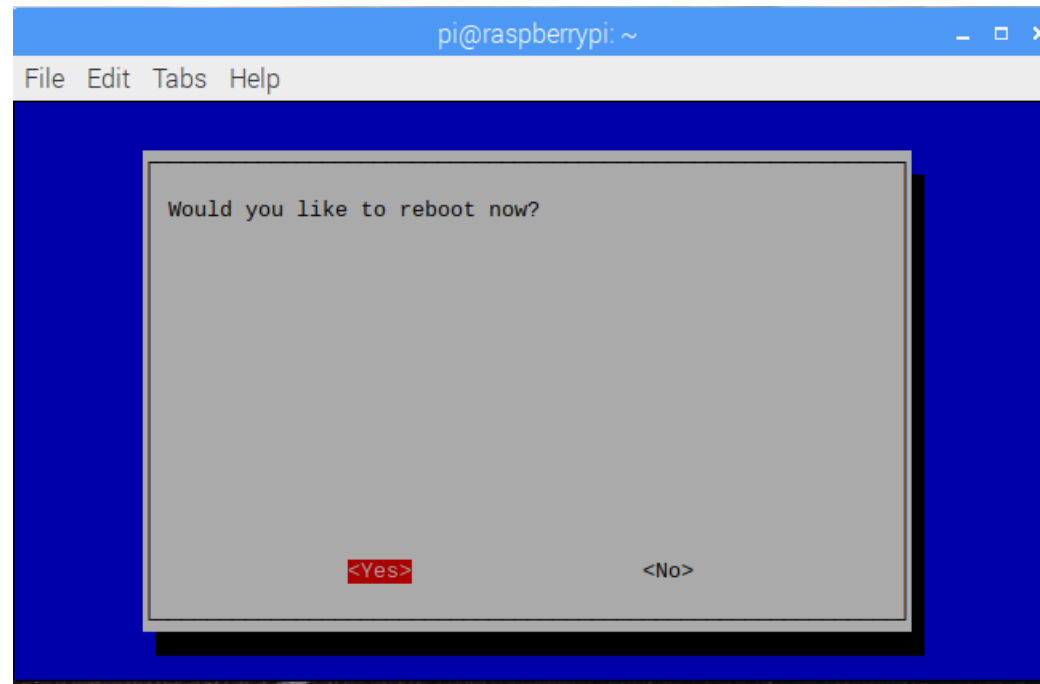**Expand Filesystem**
And
Hit **Enter**

Exploring Raspbian Desktop
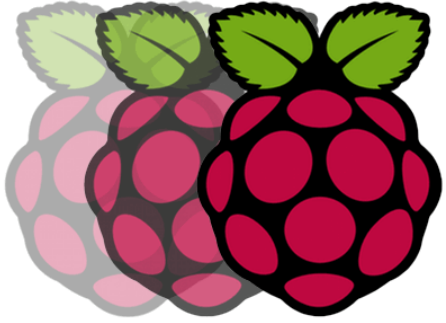
Lesson 1: Getting Started with Raspberry Pi

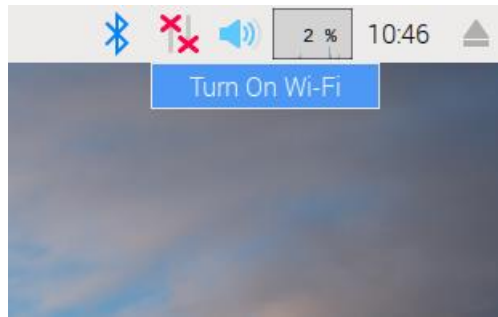## Using Teminal to Expand SD Card

5

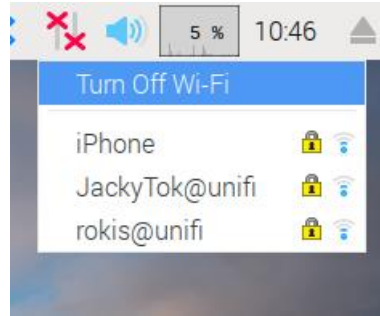Go the
Yes
And
Hit **Enter**

Wireless Connection Setup

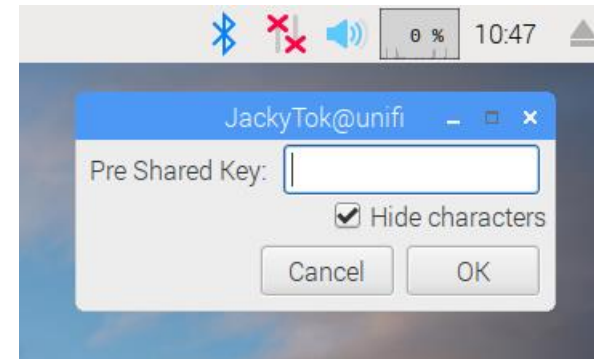## Lesson 1: Getting Started with Raspberry Pi
Setting Up Wireless Connection

1

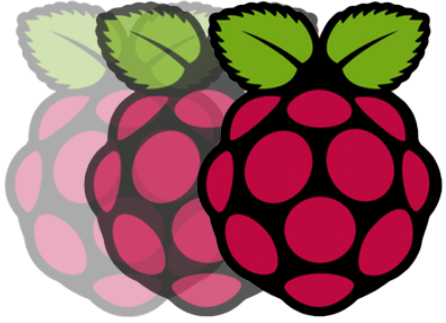Click on the **Network** icon. **Turn On Wi-Fi**

2

Select and click on preferred available Wi-Fi network

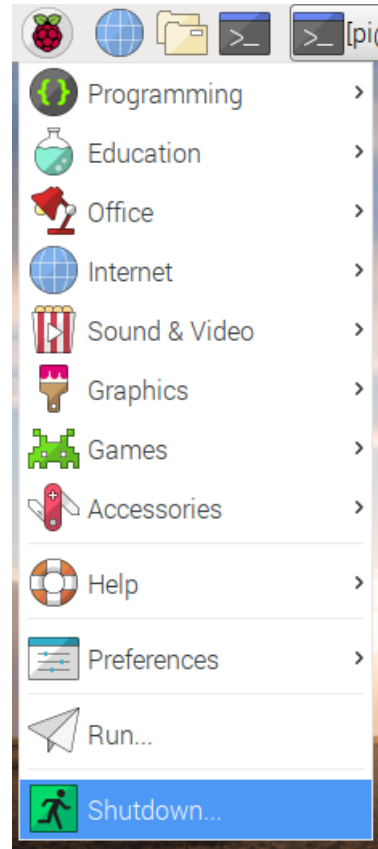**3**

Enter the **password**

Shutdown Raspberry Pi

Lesson 1: Getting Started with Raspberry Pi
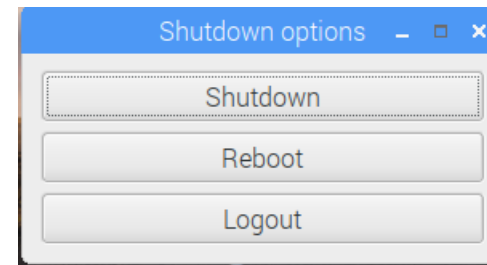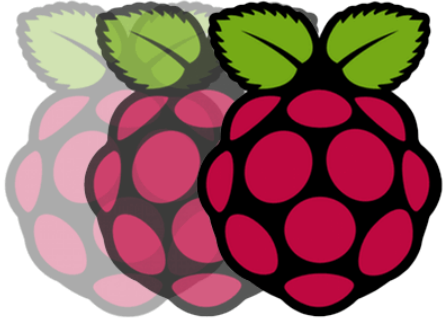
Shutting Down Raspberry Pi #1

1

Click **Raspberry Icon,**
Scroll down
and
click **Shutdown**

2

Click either
Shutdown,
or
Reboot

Shutdown Raspberry Pi

Lesson 1: Getting Started with Raspberry Pi
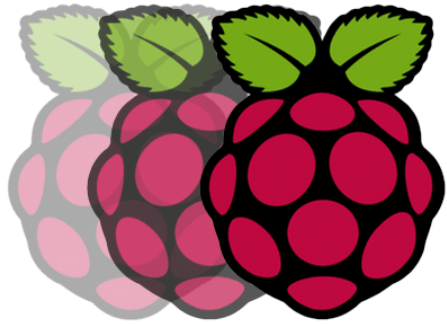## Shutting Down Raspberry Pi #2

Using **Terminal**
and type
sudo reboot

Using **Terminal**
and type
sudo shutdown –h now

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Playing Games on Raspberry Pi

Lesson 1: Getting Started with Raspberry Pi

Python Games