

Setting up and using the Raspberry Pi and RACHEL

The Remote Area Community Hot-spot for Education and Learning or RACHEL as it is commonly known is an excellent educational resource for schools with or without a connection to the Internet. It can act as your own local Internet it runs with only a 5 volt battery or phone charger

It is full of useful content for Teachers, Students and other members of the community.

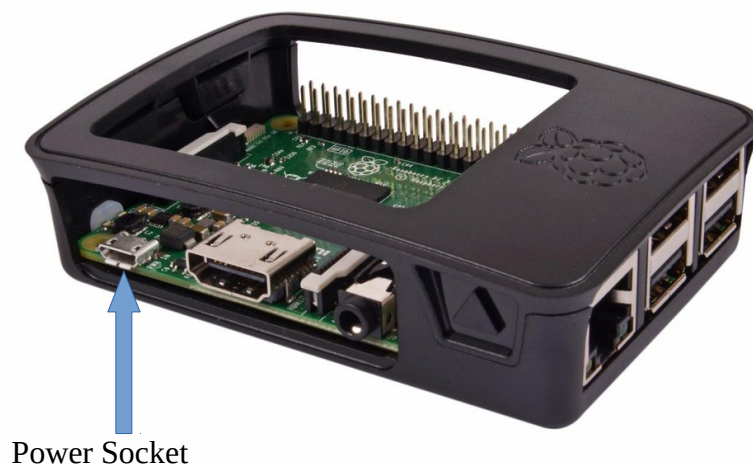
This short note explains how to setup and use RACHEL on the Raspberry Pi computer.

Why the Pi

Put simply it is energy efficient and cost effective.

The Pi holds the whole of RACHEL on a 64 gigabyte SD card. To set it to work you don't need to have any technical skill.

Simply plug a micro usb power cable into the power socket. That is the only connection you need. Because it has no other connection it is sometimes called a headless server.



Once connected the Raspberry Pi will automatically set itself as a WiFi access point. Its SSID (or WiFi name) is Rpi. Any wireless device, a laptop, tablet, phone or even a PC with wireless capability can connect to this (without the need for a password)

Once RPi is connected then open a browser, (Firefox Chrome , Safari etc.) and enter 10.10.10.10 in the URL box. That's it - you are now using RACHEL

RACHEL - Home

10.10.10.10

RACHEL

Admin | Stats | Version

HOME ABOUT

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Math

- Early Math
- Arithmetic
- Pre-algebra
- Algebra basics
- Algebra I
- Basic Geometry
- Geometry
- Algebra II
- Trigonometry
- Probability and statistics

Science

- Precalculus
- Differential calculus
- Integral calculus
- Multivariable calculus
- Differential equations
- Math for fun and glory
- Biology
- Physics
- Chemistry
- Organic Chemistry

Economics and finance

- Cosmology and astronomy
- Health and medicine
- Electrical engineering
- Microeconomics
- Macroeconomics
- Finance and capital markets
- Entrepreneurship

Computing

- Computer programming
- Computer science

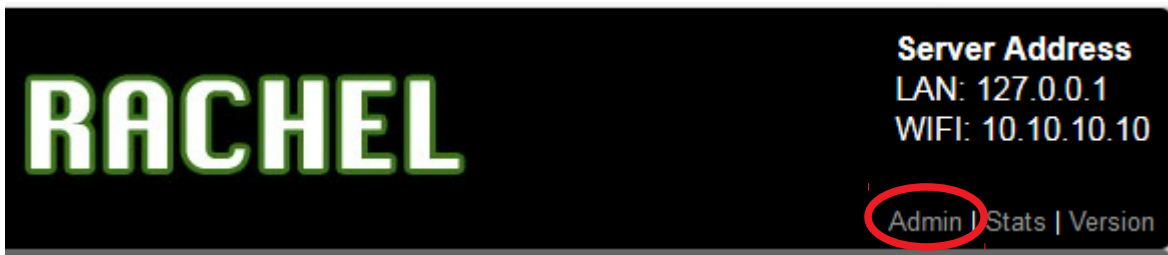
You can create an account to track your progress. When you return, you can login and view your progress.

Wikipedia for Schools

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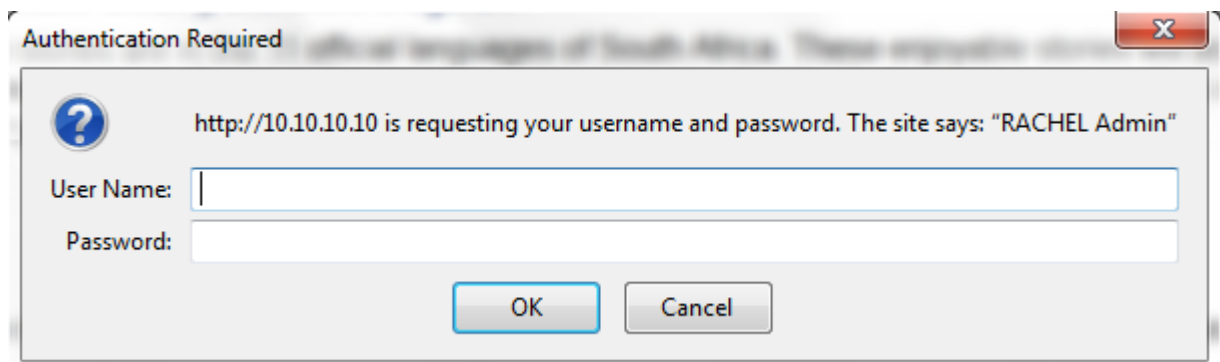
Shutting down the Pi

The Pi should be shutdown from the Home Page
On the Right side you will see some details.
The Server WiFi IP Address which is 10.10.10.10



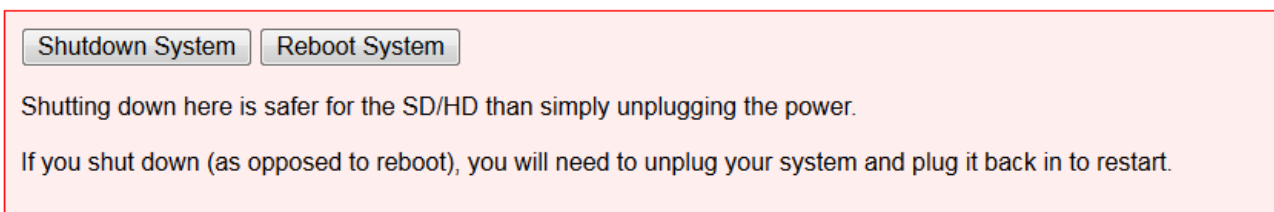
Click on Admin

A popup dialogue box will appear to allow you to log into the server



The user name to use is **root** and the password **rachel**. Note rachel is all lower case.

A lot of information will appear which we can ignore but right at the bottom will be



To Shutdown simply click the Shutdown button, wait until the activity light on the Pi stops, I usually give it 10 to 15 seconds, then pull the power cable out.

To start it up again simply replace the power cable.

Note: If you connect your Pi to a network with a network cable, say the school network or router then it will be given a LAN IP Address. This will vary from network to network but is usually something like 192.168.1.116.
Anyone on that network will be able to access the same RACHEL content as if they were on the WiFi network. They would use the IP Address shown on the Home page as LAN