Practical no: 11

Title: Create a simple web interface for Raspberry-Pi/Beagle board to control the connected LEDs remotely through the interface.

Name: Aditi Dinesh Mulay

Class: T.E. Computer

Subject: ES&IOT

Div: A

Roll no: 02

PRN No. 71918146B

ESIOT

Practical 11

Aditi Dinesh Mway
T.E. Comp Div: A
Roll no: 2

Aim:

Create simple web interface for Raspberry-Pi / Beagle board to control the connected LED's remotely through the interface.

Theory

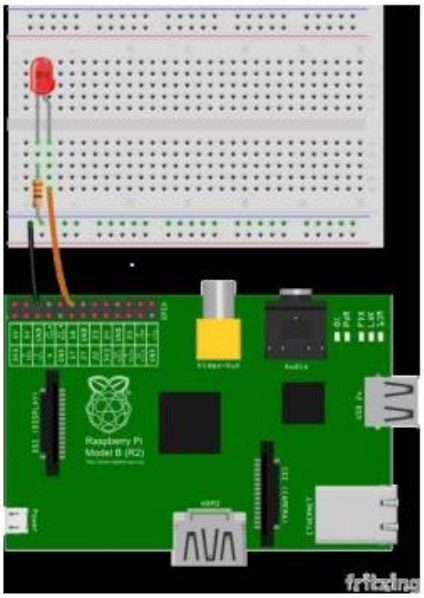
WiringPi

WiringPi is a PIN based GPIO access library written in C for the BCM2835 used in the Raspberry Pi. It's released under the GNU LGPLv3 license and is usable from C, C++ and RTB as well as many other languages with suitable wrappers.

Install WiringPi

WiringPi is not included with Raspbian, so to begin, you'll need to download and install it. That means your Pi will need a connection to the Intect either via Ethernet or Wifi. We can do using Git to download the latest version. As long as you have Git installed, these commands should be all you need to download and install WiringPi:

pi@raspberrypi ~ $ git clone git://git.drogon.net/wiringPi
pi@raspberrypi ~ $ cd wiringPi pi@raspberrypi ~/wiringPi /
wiringPi $ ./build.



GPIO Command Line Utility

Task: Connect the LED GND to short Pin GPIO18 to Long Pin

Remember: GPIO18 is PIN 1 in Wiring PI

GPIO Command Line Utility

1. Glow the LED by value.
2. gpio write 1 1
3. Off the LED by
   gpio write 1 0

Web Interface to LED

1. Create the front-page using HTML which contains two buttons to put the LED in ON or OFF state.
2. Control the data i/p from buttons using PHP page

Conclusion.-

Thus, we have created simple web interface for Raspberry-Pi/Beagle board to control the connected LED's remotely through the interface