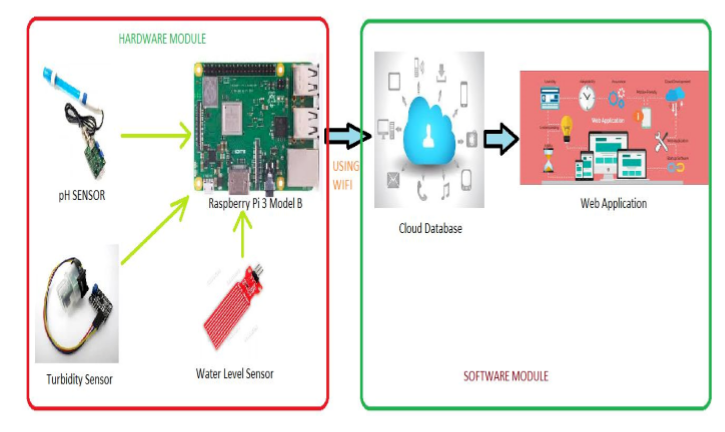
**BLOCK DIAGRAM:**

****

**HARDWARE REQUIREMENTS:**

i. Raspberry Pi 3 Model B

ii. pH sensor

iii. Turbidity Sensor (TS-300B)

iv. Water Level Sensor

**SOFTWARE REQUIREMENTS:**

i. Raspbian OS

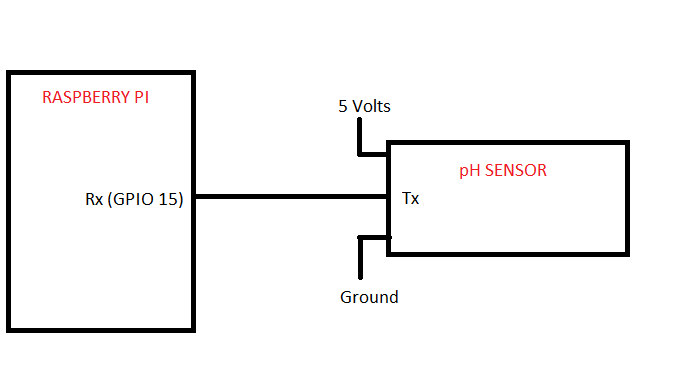
ii. 000webhost Web Hosting Service(Online)

iii. Notepad++

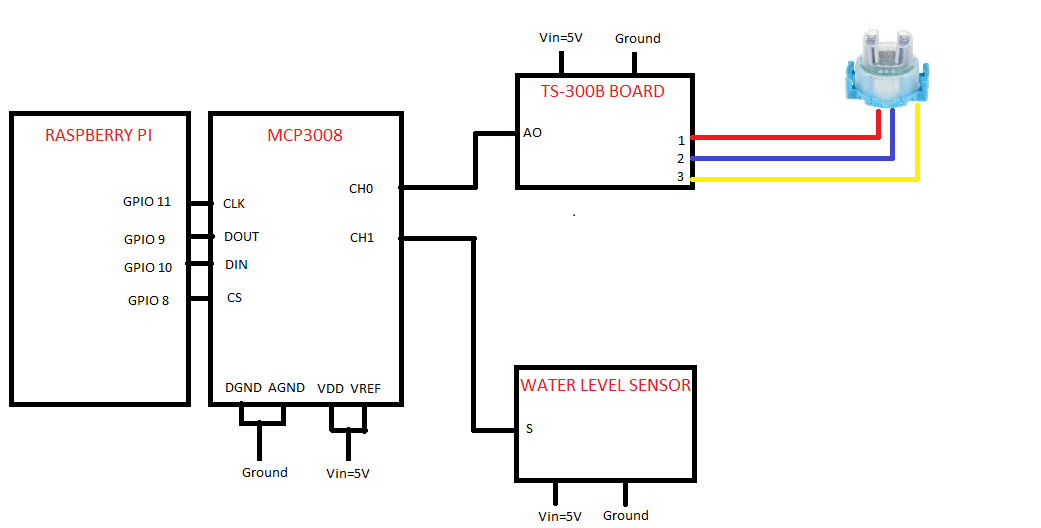
**NOTE:**

* Enable SPI interface in Raspberry Pi by the procedure given in link: https://www.raspberrypi-spy.co.uk/2014/08/enabling-the-spi-interface-on-the-raspberry-pi/

**INTERFACING pH SENSOR WITH RASPBERRY PI**

****

**INTERFACING TURBIDITY SENSOR (TS-300B) AND WATER LEVEL SENSOR WITH RASPBERRY PI:**

****

In the Hardware side, if we establish the above circuit connections and run the main.py code in raspberry pi connected to Internet, it will send the water quality data to cloud sql database.

**SOFTWARE SIDE:**

In order to collect data from pi and store it in database I used the free web hosting service **– 000webhost.com.**

**So create an account in 000webhost to start the project if you didn’t have.**

Here are some basic video links and materials to know about 000webhost

1. <https://www.youtube.com/watch?v=3Qkn9ju1Sj0>
2. <https://www.youtube.com/watch?v=-y4x8DyQHDE>
3. <https://www.000webhost.com/forum/t/how-to-connect-to-database-using-php/42093>:
4. <https://www.youtube.com/watch?v=IgbsrCv0a_E>

STEPS TO CREATE WEBHOST:

* Open the database manager and create a new database.
* In the database create a new table namer watermonitor with fields id, pH, turbidity, waterlevel, luminous, temperature. The field id must be selected as primary key and must be autoincremented.
* Now open the file manager and upload all the php files, images and folder Table\_Responsive\_v1.
* In DBCONFIG change the database user name, Your database password and Your database name.
* Now open the waterresourcetable.php file the website works which displays the water quality parameters measured by Pi.
* Here the inswat.php file acts as the api to update the 000webhost database table with water quality parameters from Pi