PROJECT WORK

Home Automation using NodeMCU & Blynk App (IoT)

Control LED using Blynk

Required Component:

- NodeMCU board
- LED
- Connecting Cable
- Connecting Wires

STEPS:

- Connect positive of the LED to D4
- Negative to the GND

SET UP THE BLYNK IOT

https://blynk.io/

- Log in and set up the account.
- Select "**template" <** click on **"new template" <** enter **"NAME" <** select **"ESP8266" < connection type "WI-FI" <** click **"Done"**
- Select **Datastreams <** select **"new datastream" <** Select **"Digital" <** Enter **"Name" <** select **"pin"** ***here selected 2*** **<** click on **"Create"**
- Select **"Web Dashboard" <** drag and drop the **"switch"** widget
- In the **switch widget** select **"Settings" <** choose **source "LED(2) < "Save"**
- Also click on **"Save"** at upper right side
- Go to the Search **section <** click on **"New device button" <** select **"from template" <** enter **"template name & device name" < "create"**
- We will get template id, device name and authentication token < copy it and use in the code given below.
- Also provide the **"ssid"** and the **"password"** in the program.

```
#define BLYNK_TEMPLATE_ID "TMPL33djnGBLe"
#define BLYNK_TEMPLATE_NAME "conrol led"
#define BLYNK_AUTH_TOKEN "7d4OHkXzYWzYe67HiUKo7fSism9wBQe9"


#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>


char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "FTTH";  // Enter your Wifi Username
char pass[] = "12345678";
int ledpin = D4;
void setup()
{
  Serial.begin(115200);
  Blynk.begin(auth, ssid, pass);
  pinMode(ledpin,OUTPUT);
}

void loop()
{
  Blynk.run();
}
```

- Now select the NodeMCU board and PORT in Arduino IDE. Now click on the upload button to program the NodeMCU.
- Program is uploaded

    - Go back to the web dashboard, and can see the device online, if we press the button LED will turn on.

SET UP IN MOBILE DASHBOARD

- Download the BLYNK IOT app from the playstore.
- Click log in using the same username and password and log in
- Click on the same template
- SET UP DASHBOARD < select the “WIDGET” << select “BUTTON”

- Click on it and enter “name” < Select “data stream” LED
- Select button mode as “SWITCH”