

# Develop The Python Script

## Python Script

Team ID	PNT2022TMID18013
Project Name	IOT Based Real-Time River Water Quality Monitoring and Control System

### PYTHON - SCRIPT:

```
riverwater.py - C:/Users/SMITHARAJINI T/AppData/Local/Programs/Python/Python37/riverwater.py (3.7.0)
File Edit Format Run Options Window Help
#include <WiFi.h>
#include <PubSubClient.h>
#include "DHT.h"
#define DHTPIN 5 // what pin we're connected to
#define DHTTYPE DHT22
DHT dht (DHTPIN, DHTTYPE);
void callback(char* subscribetopic, byte* payload, unsigned int
payloadLength);
//-----Credentials of IBM Accounts-----
#define ORG "Sbfis0"//IBM ORGANITION ID
#define DEVICE_TYPE "iot"//Device type mentioned in ibm watson IOT Platform
#define DEVICE_ID "123456"//Device ID mentioned in ibm watson IOT Platform
#define TOKEN "lEge!C_Y-Cix7RGX" //Token
String data3;
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
char publishTopic[] = "iot-2/evt/Data/fmt/json";
char subscribetopic[] = "iot-2/cmd/test/fmt/String";
char authMethod[] = "use-token-auth";
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
WiFiClient wifiClient;
PubSubClient client(server, 1883, callback, wifiClient);
const int pin1 = 2;
#define SOUND_SPEED 0.034
long duration;
float distance;
void setup() {
  Serial.begin(115200);
  pinMode(pin1, INPUT);
  dht.begin();
  pinMode(4, INPUT);
  wifiConnect();
  mqttconnect();
}
void loop()
{
  int turb = digitalRead(pin1);
  int ph= analogRead(4);
  Serial.println("Ph value:");
  Serial.println(ph);
  Serial.println("Turbidity:");
  Serial.println(turb);
  int temp = dht.readTemperature();
  Serial.print("temp:");
  Serial.println(temp);
  delay(1000);
}
```