Sprint 1

Date	14.11.2022
Team ID	PNT2022TMID28239
Project Name	Real-Time Water QualityMonitoring And Control System

```
#include <ESP8266HTTPClient.h>
#include <FirebaseArduino.h>
#include <DNSServer.h>
#include <ESP8266WiFi.h>
#include <ESP8266WebServer.h>
#include <OneWire.h>
#include <TimeLib.h> //library to get time and date
#include <WiFiUdp.h>
#include <OneWire.h>

#define StartConvert 0
#define ReadTemperature 1
#define ecSwitch D6
#define tempSwitch D7
#define turbiditySwitch D8

/* EC and Temp */
const byte numReadings = 20;     //the number of sample times
byte ECsensorPin = A0;  //EC Meter analog output,pin on analog 1
byte DS18B20_Pin = D2; //DS18B20 signal, pin on digital 2
unsigned int
AnalogSampleInterval=25,printInterval=700,tempSampleInterval=850
unsigned int readings[numReadings];
byte indx = 0;
unsigned long AnalogValueTotal = 0;
unsigned int AnalogAverage = 0,averageVoltage=0;
unsigned long AnalogSampleTime,printTime,tempSampleTime;
float temperature,ECcurrent;


void setup()
{
  Serial.begin(115200);
```

```
  // connect to wifi using WifiManager library.
  WiFiManager wifiManager;
  //wifiManager.autoConnect("AutoConnectAP");
  wifiManager.autoConnect("PureraWater");

  Serial.println();
  Serial.print("connected: ");
  Serial.println(WiFi.localIP());



  pinMode(MUX_A, OUTPUT);
  pinMode(MUX_B, OUTPUT);
  pinMode(phSwitch,OUTPUT);
  pinMode(ecSwitch,OUTPUT);
  pinMode(turbiditySwitch,OUTPUT);

  myservo.attach(servoPin);
  Udp.begin(localPort);
  //Serial.print("Local port: ");
  //Serial.println(Udp.localPort());
  //Serial.println("waiting for sync");
  setSyncProvider(getNtpTime);
  setSyncInterval(300);

  Serial.begin(115200);
}
```