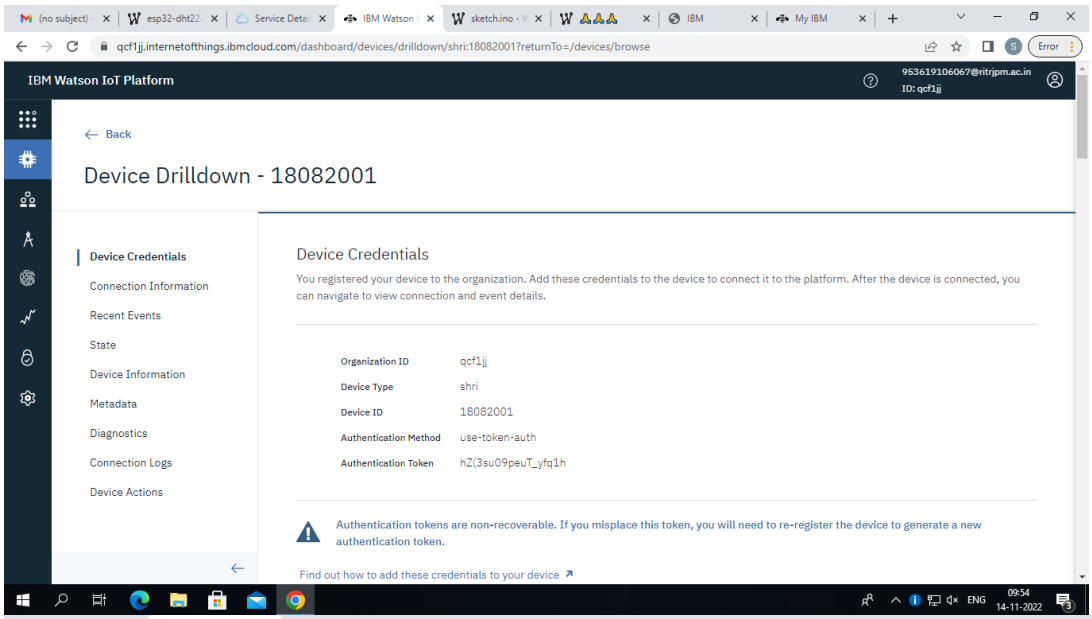
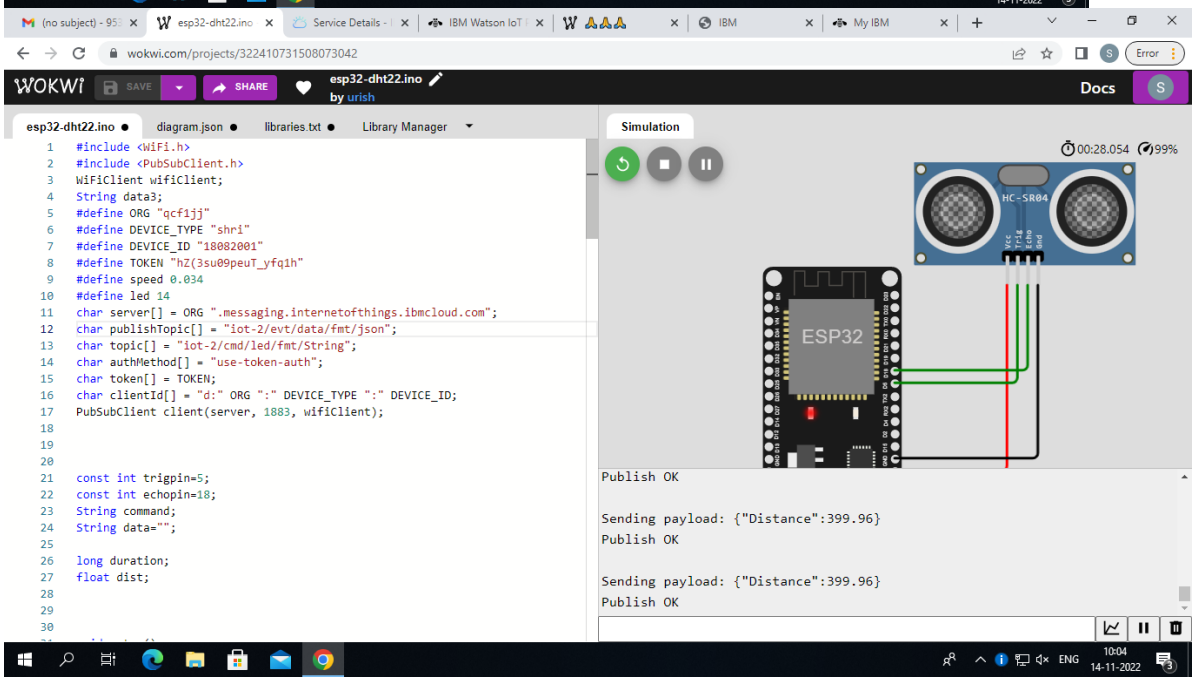
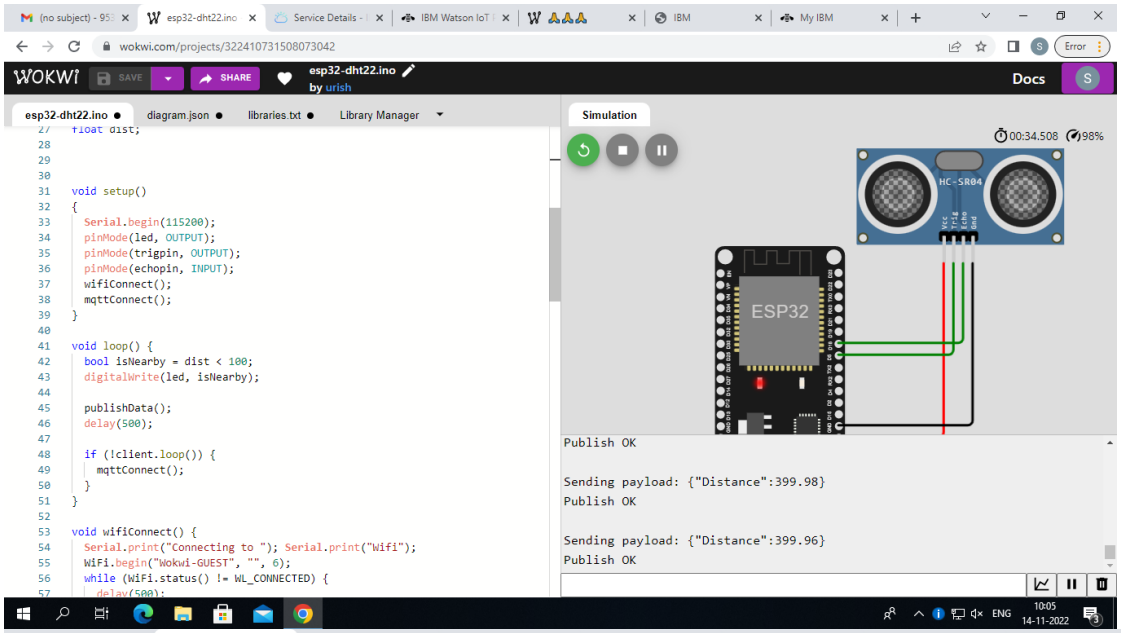
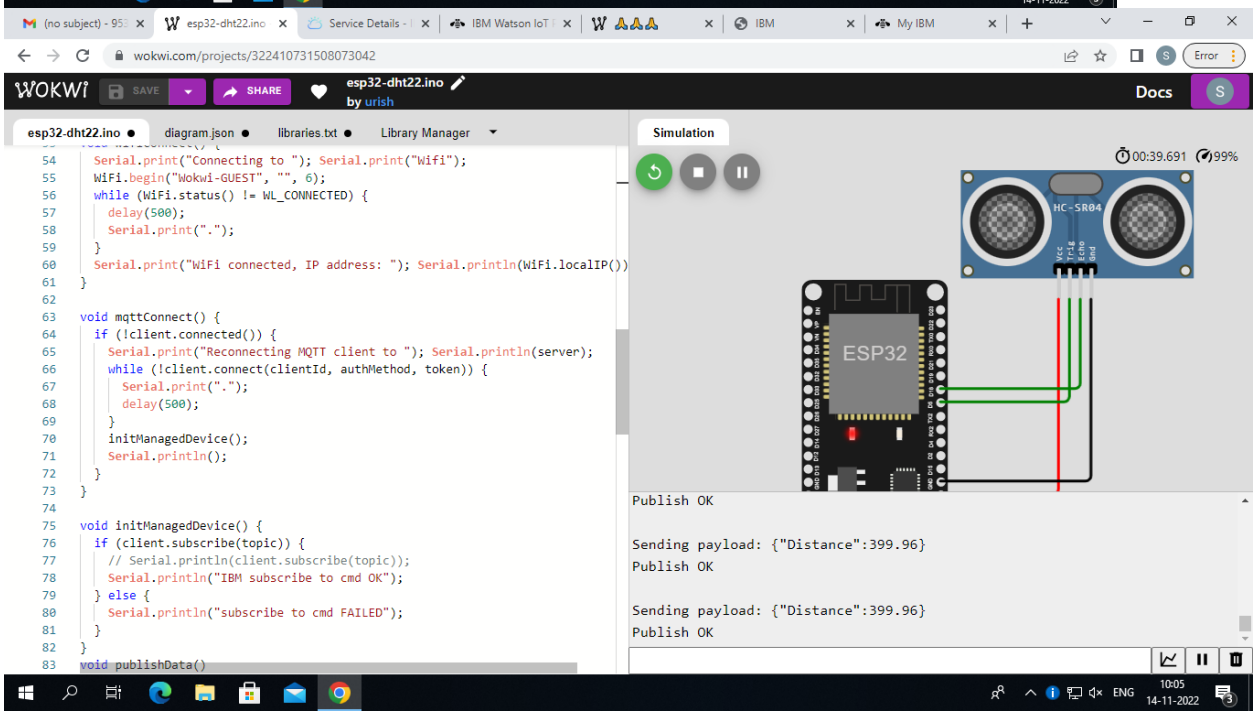
Team id	PNT2022TMID51115
Team Project	Smart solution for railways
Team Leader	Shrinithimeena .M



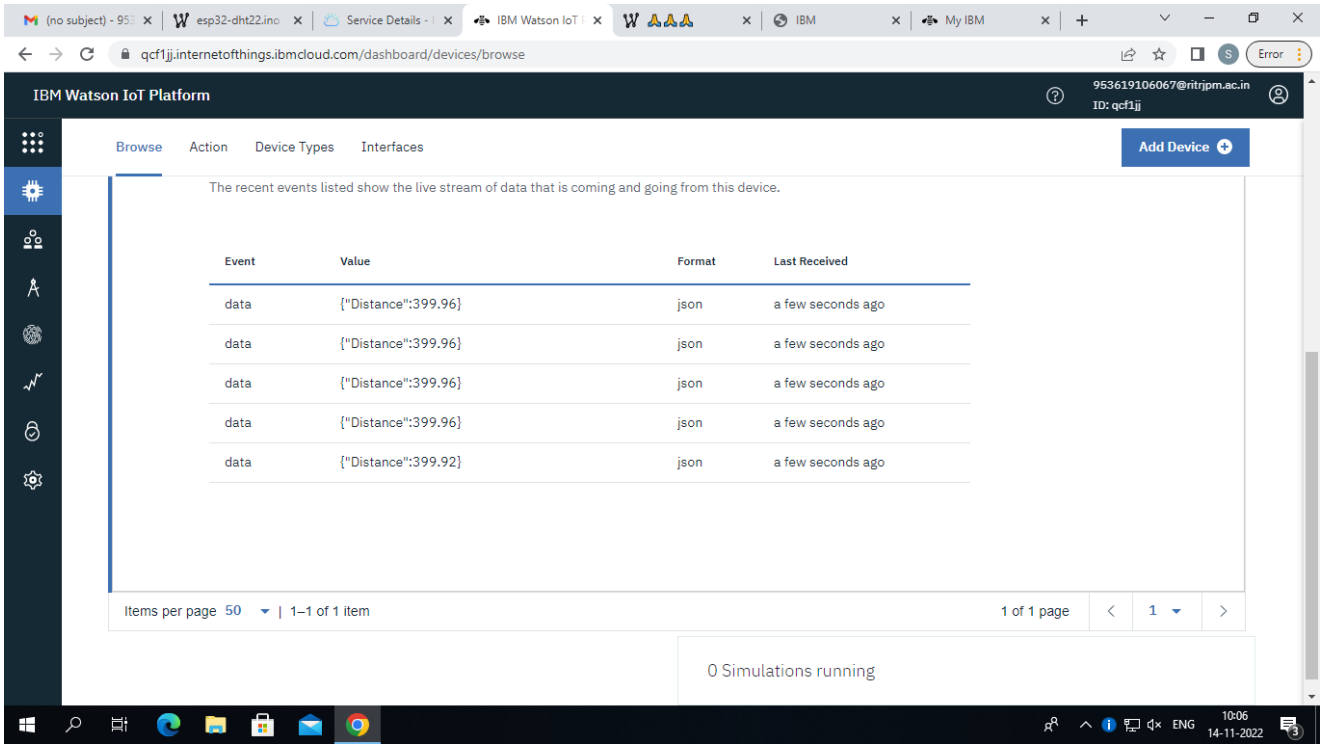





```
float dist;



void setup()
{
  Serial.begin(115200);
  pinMode(led, OUTPUT);
  pinMode(trigpin, OUTPUT);
  pinMode(echopin, INPUT);
  wifiConnect();
  mqttConnect();
}

void loop() {
  bool isNearby = dist < 100;
  digitalWrite(led, isNearby);

  publishData();
  delay(500);

  if (!client.loop()) {
    mqttConnect();
  }
}

void wifiConnect() {
  Serial.print("Connecting to "); Serial.print("Wifi");
  WiFi.begin("Wokwi-GUEST", "", 6);
  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
```




```
    Serial.print("Connecting to "); Serial.print("Wifi");
    WiFi.begin("Wokwi-GUEST", "", 6);
    while (WiFi.status() != WL_CONNECTED) {
      delay(500);
      Serial.print(".");
    }
    Serial.print("WiFi connected, IP address: "); Serial.println(WiFi.localIP());
  }

  void mqttConnect() {
    if (!client.connected()) {
      Serial.print("Reconnecting MQTT client to "); Serial.println(server);
      while (!client.connect(clientId, authMethod, token)) {
        Serial.print(".");
        delay(500);
      }
      initManagedDevice();
      Serial.println();
    }
  }

  void initManagedDevice() {
    if (client.subscribe(topic)) {
      // Serial.println(client.subscribe(topic));
      Serial.println("IBM subscribe to cmd OK");
    } else {
      Serial.println("subscribe to cmd FAILED");
    }
  }
  void publishData()
```



Wowki Link : https://wokwi.com/projects/322410731508073042