

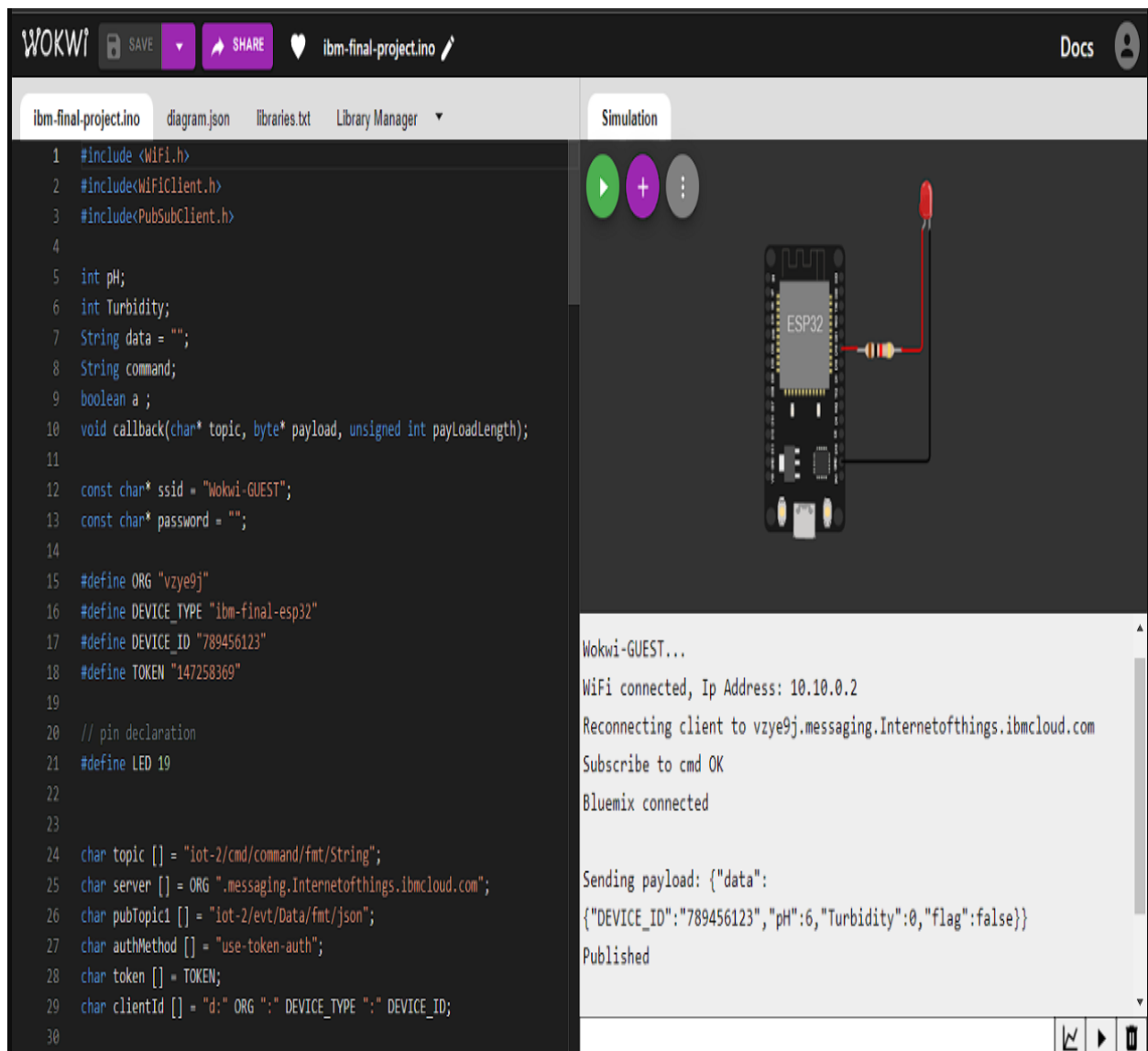
PROJECT DEVELOPMENT PHASE

SPRINT 2

Project name: Real-Time River Water Quality Monitoring and Control System

Team ID: PNT2022TMID53593

Workwi Simulation:



The screenshot displays the Workwi simulation interface. The top bar includes the 'WOKWI' logo, 'SAVE' and 'SHARE' buttons, and the project name 'ibm-final-project.ino'. Below the top bar, there are tabs for 'ibm-final-project.ino', 'diagram.json', 'libraries.txt', and 'Library Manager'. The main area is split into two panes. The left pane shows the Arduino code for the project, which includes headers for WiFi, WiFiClient, and PubSubClient, variable declarations for pH, Turbidity, data, command, and a boolean flag, and a void callback function. The code also defines the organization 'vzye9j', device type 'ibm-final-esp32', device ID '789456123', and token '147258369'. It declares pins for LED and pin declaration, and defines the topic, server, pubTopic, authMethod, token, and clientId. The right pane shows the simulation of the ESP32 microcontroller connected to a sensor module. Below the simulation, there is a log window showing the following output:

```
Wokwi-GUEST...
WiFi connected, Ip Address: 10.10.0.2
Reconnecting client to vzye9j.messaging.internetofthings.ibmcloud.com
Subscribe to cmd OK
Bluemix connected

Sending payload: {"data":
{"DEVICE_ID":"789456123","pH":6,"Turbidity":0,"flag":false}}
Published
```

[illegible]

pH and Turbidity Card:

