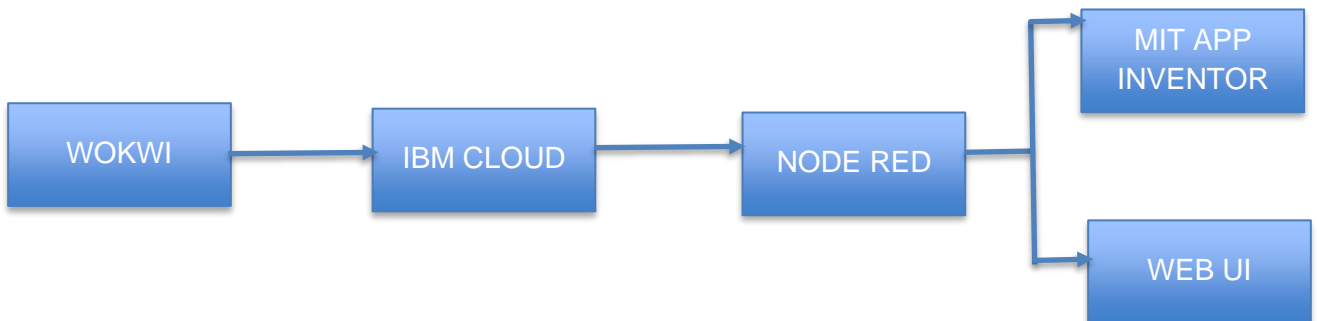


**Project Development Phase
Sprint - 1**

Date	29 October 2022
Team ID	PNT2022TMID35789
Project Name	Smart waste management system
Maximum Marks	4 Marks

WORKFLOW:



Sprint 1 – We have included the wokwi code and wokwi simulation

Wokwi simulation:

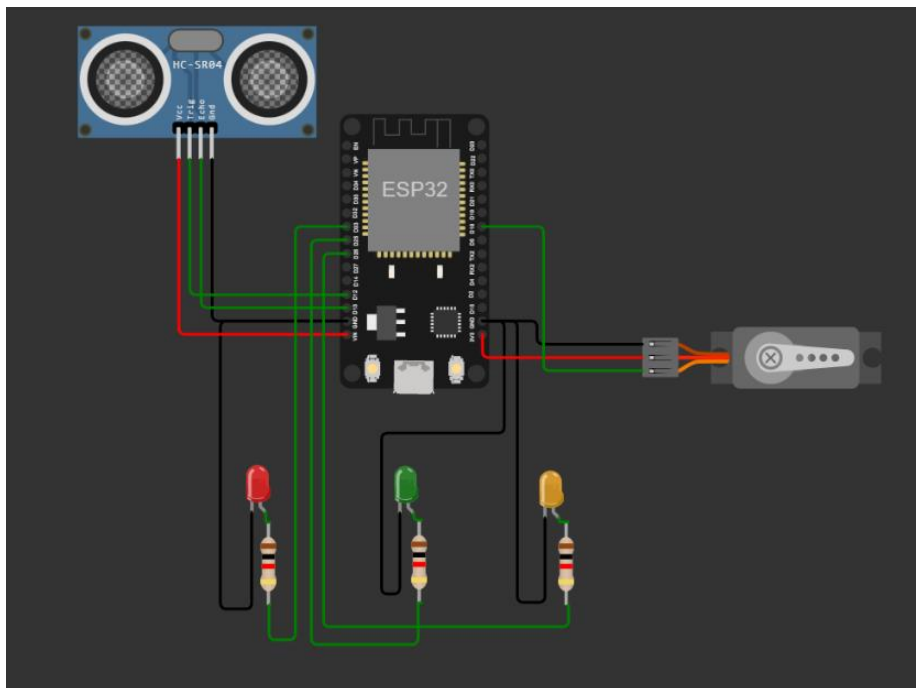
WOKWI

sketch.ino diagram.json libraries.txt Library Manager

```
1 #include <WiFi.h> //library for wifi
2 #include <PubSubClient.h> //library for MQTT
3 #define ECHO_PIN 13
4 #define TRIG_PIN 12
5 #include <ESP32Servo.h>
6 const int servoPin = 18;
7 int ledPin1=33; //definition digital 33 pins as pin to control the red LED
8 int ledPin2=25; //definition digital 25 pins as pin to control the green LED
9 int ledPin3=26; //definition digital 26 pins as pin to control the orange LED
10 Servo servo;
11 int pos = 0;
12 int weight;
13
14 void callback(char* subscribtopic, byte* payload, unsigned int payloadLength);
15
16 //-----credentials of IBM Accounts-----
17
18 #define ORG "ny6nkk" //IBM ORGANITION ID
19 #define DEVICE_TYPE "ESP32" //Device type mentioned in ibm watson IOT Platform
20 #define DEVICE_ID "smart_waste" //Device ID mentioned in ibm watson IOT Platform
21 #define TOKEN "12345678" //Token
22 String data3;
23 float h, t;
24
25
26 //----- Customise the above values -----
27 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Server Name
28 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and type of event per
29 char subscribtopic[] = "iot-2/cmd/command/fmt/String"; // cmd REPRESENT command to
30 char authMethod[] = "use-token-auth"; // authentication method
31 char token[] = TOKEN;
32 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; //client id
33
34 //-----
35
36 WiFiClient wifiClient; // creating the instance for wifiClient
37 PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefined
```

Simulation

Connecting to



```
Sending payload: {"weight":14,"level":236}
Publish ok
  Weight of the Garbage in the bin(kg):10
  The Garbage Bin is NOT FULL
  Garbage_level_in_bin(cm):236
Sending payload: {"weight":10,"level":236}
Publish ok
```

Wokwi simulation: <https://wokwi.com/projects/348215962090078804>