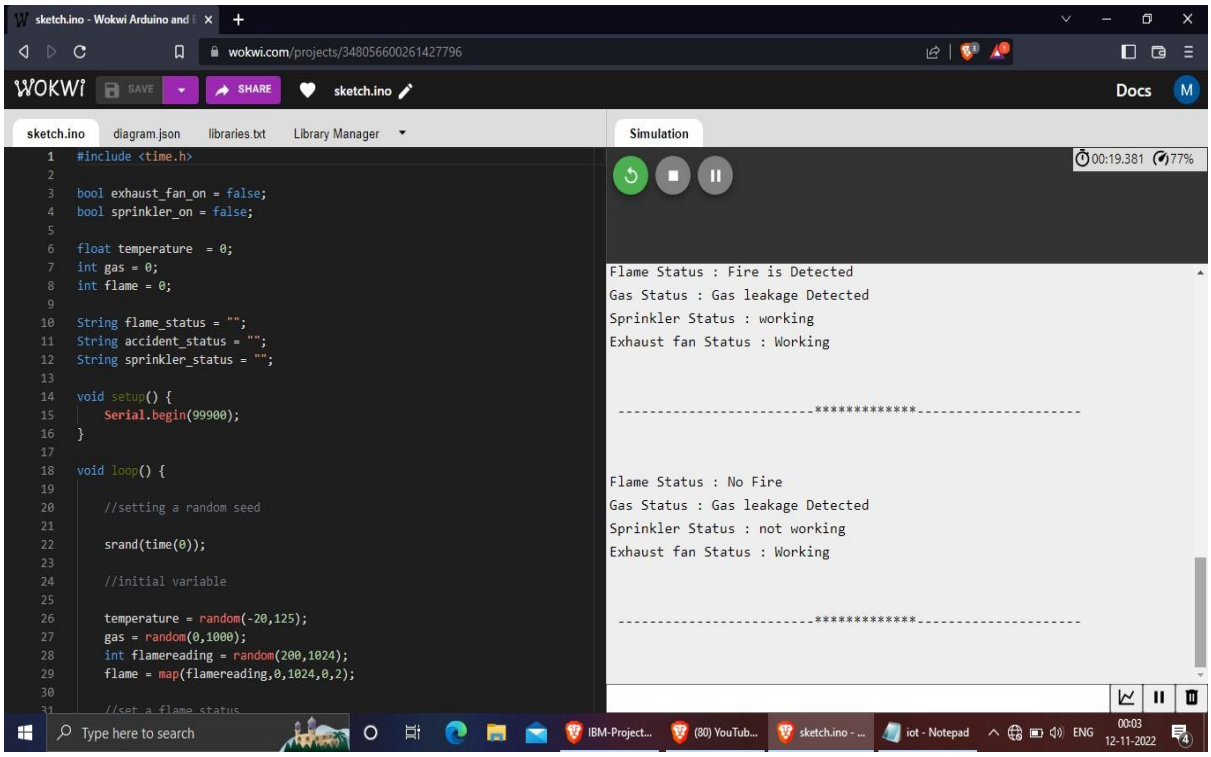
Project development phase

Sprint - I

Date	29 October 2022
Team ID	PNT2022TMID13566
Project Name	Industry-specific intelligent fire management system
Maximum Marks	8 Marks

Link: https://wokwi.com/projects/348056600261427796

OUTPUT:



CODE:

```
#include <time.h> bool
exhaust_fan_on = false; bool
sprinkler_on = false; float
temperature  = 0; int gas =
0; int flame = 0; String
flame_status = "";
String accident_status = "";
String sprinkler_status = ""; void
setup() {
   Serial.begin(99900);
}
void loop() {    //setting a random seed
srand(time(0));    //initial variable
temperature = random(-20,125);    gas =
random(0,1000);    int flamereading =
random(200,1024);    flame =
map(flamereading,0,1024,0,2);
   //set a flame status
switch (flame) {    case
0:
      flame_status = "No Fire";
      Serial.println("Flame Status : "+flame_status);
      break;
case 1:
      flame_status = "Fire is Detected";
Serial.println("Flame Status : "+flame_status);
      break;
   }
   //Gas Detection
if(gas > 100){
      Serial.println("Gas Status : Gas leakage Detected");
   }
   else{
      exhaust_fan_on = false;
      Serial.println("Gas Status : No Gas leakage Detected");
   }
   //send the sprinkler status
   if(flame){
      sprinkler_status = "working";
      Serial.println("Sprinkler Status : "+sprinkler_status);
   }
```

```
    else{
      sprinkler_status = "not working";
      Serial.println("Sprinkler Status : "+sprinkler_status);
    }
    //toggle the fan according to gas
    if(gas > 100){
  exhaust_fan_on = true;
      Serial.println("Exhaust fan Status : Working");
    }
    else{
      exhaust_fan_on = false;
      Serial.println("Exhaust fan Status : Not Working");
    }
    Serial.println("");
    Serial.println("");
    Serial.println(" ------------------------*************----------------------");
    Serial.println("");
  Serial.println("");
    delay(3000);
  }
```