

Assignment -1

IoT-Based Industry - Real-Time River Water Quality

Python Programming

Assignment Date	13 October,2022
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Maximum Marks	2 Marks

Problem statement:

Build a smart home in tinkercad with 2 sensors, an LED, buzzer and submit it.

Solution:

Python code:

```
float temp;
float vout;
float vout1;
int LED = 13;
int gasSensor;
int piezo = 7;
void setup() {
    pinMode(A0,INPUT);
    pinMode(A1, INPUT);
    pinMode(LED,OUTPUT);
    pinMode(piezo,OUTPUT);
    Serial.begin(9600);
}
void loop() {
    vout=analogRead(A1);
    vout1=(vout/1023)*5000;
    temp=(vout1-500)/10;
    gasSensor=analogRead(A0);
    if (temp>=80) {
```

```
        digitalWrite(LED,HIGH);
    } else {
        digitalWrite(LED,LOW);
    }
    if (gasSensor>=100) {
        digitalWrite(piezo,HIGH);
    } else {
        digitalWrite(piezo,LOW);
    }
    Serial.print("in DegreeC= ");
    Serial.print(" ");
    Serial.print(temp);
    Serial.print("\t");
    Serial.print("GasSensor= ");
    Serial.print(" ");
    Serial.print(gasSensor);
    Serial.println();
    delay(1000);
}
```