

Assignment -1

Assignment Date	19 September 2022
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Student Roll Number	722819104087
Maximum Marks	2 Marks

Question:

Build a smart home with Thinkercad with 2 sensors, a Led, buzzer and submit it.

```
int baselineTemp = 0;  
int celsius = 0;  
int fahrenheit = 0;  
int sensorState = 0;
```

```
void setup()  
{  
  pinMode(A0, INPUT);
```

```
  pinMode(2, OUTPUT);  
  pinMode(3, OUTPUT);  
  pinMode(4, OUTPUT);  
  pinMode(7, INPUT);  
  pinMode(8, OUTPUT);  
  Serial.begin(9600);  
}
```

```
void loop()  
{  
  baselineTemp = 40;
```

```
  celsius =  
  map(((analogRead(A0)  
  - 20) * 3.04), 0, 1023, -  
  40, 125);
```

```
  fahrenheit = ((celsius  
  * 9) / 5 + 32);  
  Serial.print(celsius);  
  Serial.print(" C, ");
```

```
  Serial.print(fahrenheit);  
  Serial.println(" F");
```

```
    if (celsius <
baselineTemp) {
        digitalWrite(2, LOW);
        digitalWrite(3, LOW);
        digitalWrite(4, LOW);
    }
    if (celsius >=
baselineTemp &&
celsius < baselineTemp
+ 10) {
        digitalWrite(2,
HIGH);
        digitalWrite(3, LOW);
        digitalWrite(4, LOW);
    }
    if (celsius >=
baselineTemp + 10 &&
celsius < baselineTemp
+ 20) {
        digitalWrite(2,
HIGH);
        digitalWrite(3,
HIGH);
        digitalWrite(4, LOW);
    }
    if (celsius >=
baselineTemp + 20 &&
celsius < baselineTemp
+ 30) {
        digitalWrite(2,
HIGH);
        digitalWrite(3,
HIGH);
        digitalWrite(4,
HIGH);
    }
    if (celsius >=
baselineTemp + 30) {
        digitalWrite(2,
HIGH);
        digitalWrite(3,
HIGH);
        digitalWrite(4,
HIGH);
    }
}
```

OUTPUT:

