Assignment -1
Python Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

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

```
int LED1 = 12;

int LED2 = 11;

int buzzer = 10;

int smoke = A5;

int bulb = 2;

int fan = 3;

int smokeThreshold = 500;

int inputPir = 9;

int baselineTemp = 0;

int celsius = 0;

int val = 0;

void setup() {

pinMode(LED1, OUTPUT);

pinMode(LED2, OUTPUT);

pinMode(buzzer, OUTPUT);

pinMode(smoke, INPUT);

pinMode(inputPir, INPUT);

pinMode(bulb, OUTPUT);

pinMode(fan, OUTPUT);

Serial.begin(9600);

}

void loop() {

int analogSensor = analogRead(smoke);

val = digitalRead(inputPir);
```

```
baselineTemp = 40;

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

Serial.print(" TEMP: ");

Serial.print(celsius);

Serial.print(" C, ");

if (celsius < 25) {

digitalWrite(fan, LOW);

}

if (celsius > 25) {

digitalWrite(fan, HIGH);

}

Serial.print("Co2: ");

Serial.print(analogSensor);

if (analogSensor > smokeThreshold)

{

digitalWrite(LED1, HIGH);

digitalWrite(LED2, LOW);

tone(buzzer, 1000, 350);

}

else

{

digitalWrite(LED1, LOW);

digitalWrite(LED2, HIGH);

noTone(buzzer);

}

delay(100);

Serial.print(", PIR: ");

Serial.println(val);

if(val == HIGH)

{

digitalWrite(bulb, HIGH);
```

```
delay(2000);

}

else

{

digitalWrite(bulb, LOW);

delay(300);

}

}
```