NAAN MUDHALVAN-IBM
ASSIGNMENT 1

TRACK-IOT

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TOPIC-BUILD A SMART HOME IN WOKWI WITH MINIMUM TWO SENSORS, LED

AND BUZZER.

WOKWI LINK- https://wokwi.com/projects/363321863263689729

CODE:

```
#include <Servo.h>
#include "DHT.h"
int Pir = 8;
int buzzerPin = 9;

int statusPir = 0;
#define DHTPIN 13
#define DHTTYPE DHT22
Servo myservo;
DHT dht(DHTPIN, DHTTYPE);


void setup() {
  // put your setup code here, to run once
  Serial.begin(9600);
  myservo.attach(6);
  pinMode(Pir, INPUT);
  pinMode(buzzerPin, OUTPUT);

  dht.begin();

}

void loop() {

  statusPir = digitalRead(Pir);
float h = dht.readHumidity();
  // Read temperature as Celsius (the default)
  float t = dht.readTemperature();
  // Read temperature as Fahrenheit (isFahrenheit = true)
  float f = dht.readTemperature(true);

  // Check if any reads failed and exit early (to try again).
  if (isnan(h) || isnan(t) || isnan(f)) {
    Serial.println(F("Failed to read from DHT sensor!"));
```

```
    return;
  }


  float hif = dht.computeHeatIndex(f, h);
  float hic = dht.computeHeatIndex(t, h, false);

  Serial.print(F("Humidity: "));
  Serial.print(h);
  Serial.print(F("%  Temperature: "));
  Serial.print(t);
  Serial.print(F("°C "));
  Serial.print(f);
  Serial.print(F("°F  Heat index: "));
  Serial.print(hic);
  Serial.print(F("°C "));
  Serial.print(hif);
  Serial.println(F("°F"));
  if(statusPir == LOW)
{
    myservo.write(90);
    delay(1000);
    noTone(buzzerPin);
    }

    else{
    myservo.write(270);
  delay(1000);
    tone(buzzerPin, 50);
    Serial.println("Door Closed");
  }
  delay(1000);
}
```

OUTPUT