

IoT Control

Fatema Ahmed Hossny

❖ Lab Instructions:

1. Each team should get the equipment (NodeMcu board , breadboard, LEDs , LM35 Temperature sensor, buzzer, jumpers) to do the lab experiments
2. Each team should fill the file with their Names, IDs and upload their work (Code, circuit image)
3. The completed file will be uploaded on Google Classroom by maximum due date of one week (before the next lab)

Note: Only one team member will upload the file on Google Classroom

❖ Lab Assignment:

Implement a circuit Controlling a LED, LM35 temperature sensor, and Active buzzer with NodeMCU

❖ Paste the code here:

```
float temp;
const int buzzer = 8;
void setup()
{
  pinMode(A0, INPUT);
  pinMode(11, OUTPUT);
  pinMode(13, OUTPUT);
  pinMode(buzzer, OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  temp = analogRead(A0);
  temp = ((temp*5)/1024);
  temp = (temp-0.5)*100;
  Serial.print("Temperature = ");
  Serial.println(temp);
  if (temp > 0 && temp <= 59)
  {
    digitalWrite(11, LOW);
    digitalWrite(13, HIGH);
```

```
noTone(buzzer);  
delay(1000);  
}  
if (temp > 59)  
{  
  digitalWrite(13, LOW);  
  digitalWrite(11, HIGH);  
  tone(buzzer, 1000);  
  delay(1000);  
}  
}
```

❖ Upload the Circuit here:

