ASSIGNMENT 1- QUESTION:

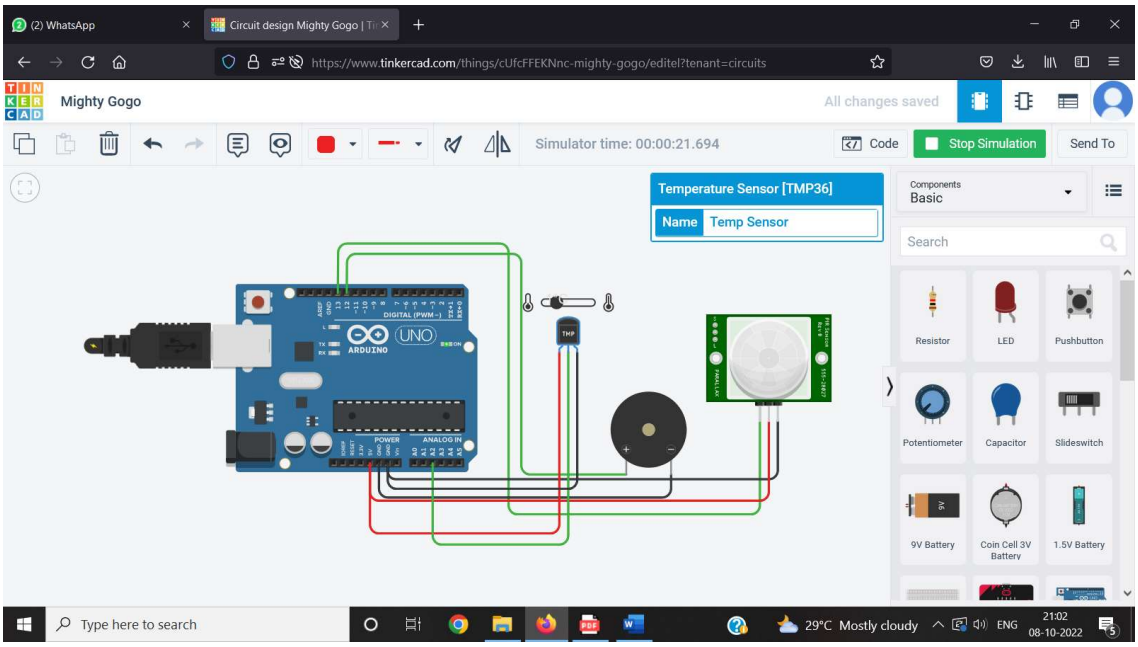
Using TinkerCad, build a circuit with temperature Sensor such that if the temperature is above 60 Celsius, the buzzer rings.

PROGRAM:

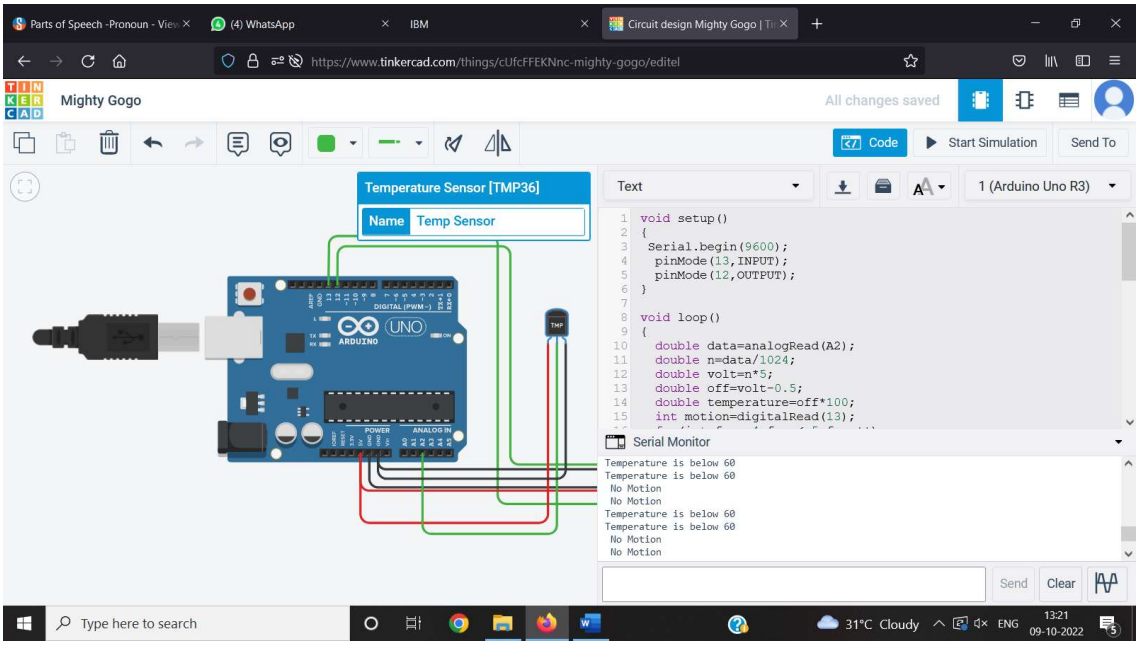
```
void setup()
{
Serial.begin(9600);
pinMode(13,INPUT);
pinMode(12,OUTPUT);
}

void loop()
{
double data=analogRead(A2);
double n=data/1024;
double volt=n*5;
double off=volt-0.5;
double temperature=off*100;
int motion=digitalRead(13);
for(int freq=4;freq<=5;freq++)
{
if(temperature>=60)
{
Serial.println("Temperature is above 60");
tone(12,freq);
delay(100);
}
else
{
Serial.println("Temperature is below 60");
noTone(12);
}
}
for(int freq=2;freq<=3;freq++)
{
if(motion==1)
{
Serial.println("Motion Detected");
tone(12,freq);
delay(200);
}
else
{
Serial.println(" No Motion");
noTone(12);
}
}
}
```

OUTPUT:

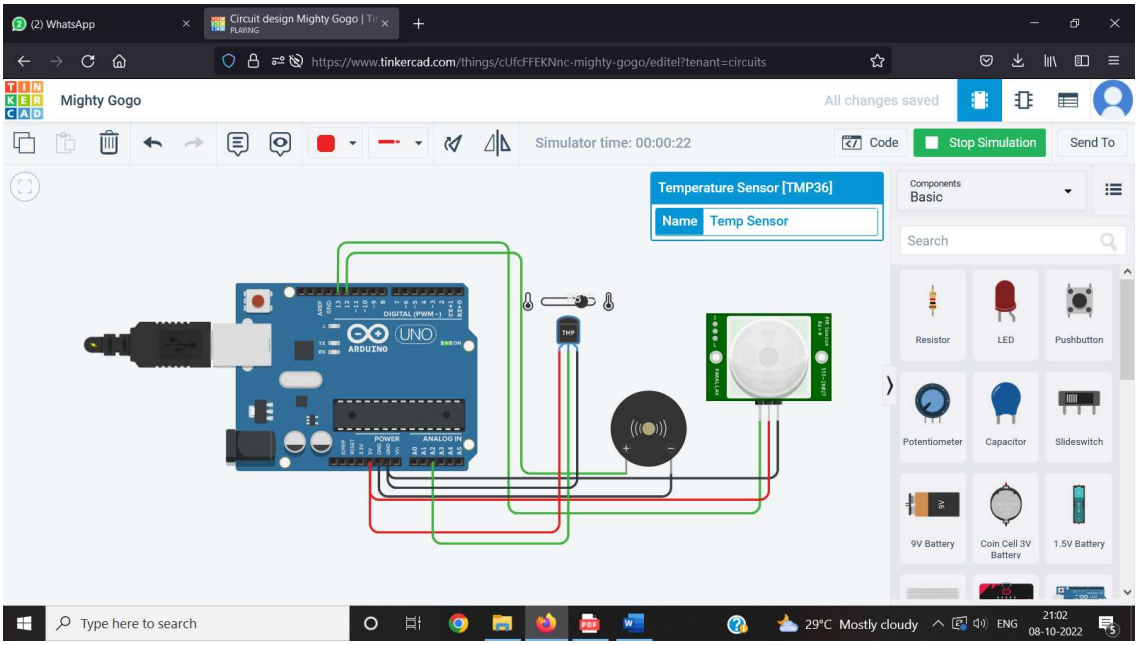
Case(i): When the temperature is below 60, buzzer doesn't ring.



SERIAL MONITOR:



Case(ii): When the temperature is above 60, the buzzer rings.



SERIAL MONITOR: