Assignment -1

Assignment Date	22 September 2022
Student Name	Mr.Jenith Ebinesh
Student Roll Number	711119106014
Maximum Marks	2 Marks

Question-1:

Make a Smarthome in TinkerCad,using 2+ Sensors,LED,Buzzer in Single Code and Circuit.

ASSIGNMENT-1

```
// C++ code
//
int t=2;
int e=3;

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

void loop()
{
  //Ultrasonic sensor
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
```

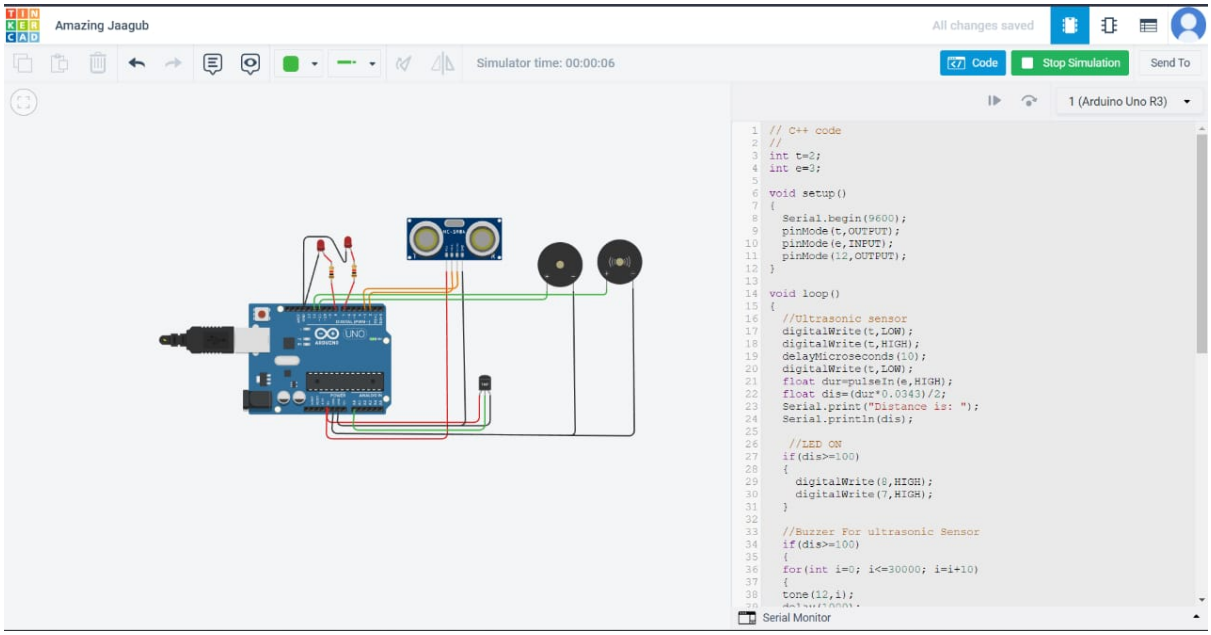
```
 float dis=(dur*0.0343)/2;
 Serial.print("Distance is: ");
 Serial.println(dis);

  //LED ON
 if(dis>=100)
 {
   digitalWrite(8,HIGH);
   digitalWrite(7,HIGH);
 }

 //Buzzer For ultrasonic Sensor
 if(dis>=100)
 {
 for(int i=0; i<=30000; i=i+10)
 {
 tone(12,i);
 delay(1000);
 noTone(12);
 delay(1000);
 }
 }
   //Temperate Sensor
 double a= analogRead(A0);
 double t=(((a/1024)*5)-0.5)*100;
 Serial.print("Temp Value: ");
 Serial.println(t);
 delay(1000);
//LED ON
 if(t>=100)
 {
```

```
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
 }

 //Buzzer for Temperature Sensor
 if(t>=100)
 {
 for(int i=0; i<=30000; i=i+10)
 {
 tone(12,i);
 delay(1000);
 noTone(12);
 delay(1000);
 }
 }
//LED OFF
 if(t<100)
 {
  digitalWrite(8,LOW);
  digitalWrite(7,LOW);
 }
}
```


Amazing Jaagub
All changes saved
Simulator time: 00:00:06
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
// C++ code
//
int t=2;
int e=3;
void setup()
{
Serial.begin(9600);
pinMode(t,OUTPUT);
pinMode(e,INPUT);
pinMode(12,OUTPUT);
}
void loop()
{
//Ultrasonic sensor
digitalWrite(t,LOW);
digitalWrite(t,HIGH);
delayMicroseconds(10);
digitalWrite(t,LOW);
float dur=pulseIn(e,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);
//LED ON
if(dis>=100)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
//Buzzer For ultrasonic Sensor
if(dis>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
Serial Monitor