Assignment -1
Python Programming

Assignment Date	15 September 2022
Student Name	Ms. MENAGHA P
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Maximum Marks	2 Marks

Question-1:

HOME AUTOMATION USING TINKERCAD

Solution:

```c
int LightSensorVal = 0;
int PIRSensorVal = 0;
int RelayOutputVal = 0;
int sensorPin = 0;
void setup()
{
  pinMode(A0, INPUT);
  pinMode(2, INPUT);
  pinMode(8, INPUT);
  pinMode(8, OUTPUT);
  pinMode(0, OUTPUT);
  pinMode(A0,OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  LightSensorVal = analogRead(A0);
  PIRSensorVal = digitalRead(2);
  RelayOutputVal = digitalRead(8);
  int reading=analogRead(sensorPin);
  float voltage=reading*4.68;
  voltage/=1024.0;
  float temperatureC=(voltage-0.5)*100;
  Serial.print(temperatureC);
  Serial.println("Degrees C");
  delay(1000);
  if (LightSensorVal < 600) {
    if (PIRSensorVal == HIGH) {
      digitalWrite(8, HIGH);
      delay(5000);
      // Wait for 5000 millisecond(s)
      digitalWrite(0, LOW);
    } else {
      delay(1000); // Wait for 1000 millisecond(s)
    }
  } else {
    digitalWrite(8, LOW);
    Serial.println(LightSensorVal);
    delay(300); // Wait for 300 millisecond(s)
  }
}
```