## ASSIGNMENT 1 - HOME AUTOMATION

```
// C++ code
//
void setup()
{
  Serial.begin(9600);                 //initialize serial communication
  pinMode(A0, INPUT);                 //LDR
  pinMode(2,INPUT);                   //PIR sensor
  pinMode(A1, INPUT);                 //Gas sensor
  pinMode(13, OUTPUT);                //led
  pinMode(8, OUTPUT);                 //buzzer
  pinMode(3,OUTPUT);                  //led
}

void loop()
{
  //LDR sensor
  int value=analogRead(A0);
  if(value>500)
  {
          digitalWrite(13, HIGH);
    Serial.print("BULB ON");
  }
  else
  {
    digitalWrite(13, LOW);
    Serial.print("BULB OFF");
  }
  delay(300);

  //Gas sensor
  int val1=analogRead(A1);
  if(val1>250)
  {
    Serial.print("    ||   Smoke Detected  value=");
    Serial.print(val1  );
```

```
  tone(8,650);
 }
 else
 {
  Serial.print("    ||    No Smoke Detected");
 }
 delay(300);
 noTone(8);

 //PIR sensor
 int val2=digitalRead(2);
 delay(500);
 if(val2==1)
 {
  Serial.println("  ||     Motion Detected");
  digitalWrite(3,HIGH);
 }
 else
 {
  Serial.println("  ||     No Motion Detected");
  digitalWrite(3,LOW);
 }
}
```