Program No:	13
Roll No :	1554
Title of Program :	LDR and PIR Sensor-Based Light Control System
Objective :	**To monitor light levels using an LDR and detect motion with a PIR sensor, controlling the state of pins 3, 4, and 5 based on the sensor readings.**

Source Codes:

```cpp
// C++ code

int ldr;  // Declare variable for LDR reading
int pir;  // Declare variable for PIR reading

void setup() {
  pinMode(A0, INPUT);  // Set A0 as input for LDR
  pinMode(6, INPUT);   // Set pin 6 as input for PIR
  for(int i = 3; i <= 5; i++) {
    pinMode(i, OUTPUT); // Set pins 3, 4, and 5 as outputs
  }
  Serial.begin(9600); // Start the serial communication
}

void loop() {
  ldr = analogRead(A0);     // Read value from LDR
  pir = digitalRead(6);     // Read value from PIR

  Serial.println(ldr);      // Print LDR value to serial monitor

  if (ldr < 500 && pir == HIGH) {
    // If LDR value is low and PIR detects motion, turn off pins 3, 4, and 5
    for (int i = 3; i <= 5; i++) {
      digitalWrite(i, LOW);
    }
  } else {
    // If condition is not met, you can add actions here (e.g., turn pins on)
```

```
  for (int i = 3; i <= 5; i++) {
    digitalWrite(i, HIGH); // Example: Set pins 3, 4, and 5 to HIGH
  }
 }
}
```

OutPut: