```
// Define the potentiometer pin and the LED pin
int potPin = A0;   // For NodeMCU, or GPIO34 for ESP32
int ledPin = 23;    // For NodeMCU, you can use any available GPIO for LED

void setup() {
  // Initialize serial communication
  Serial.begin(115200);
  pinMode(ledPin, OUTPUT);
}

void loop() {
  // Read the analog value from the potentiometer (0-1023)
  int potValue = analogRead(potPin);

  // Map the potentiometer value (0-1023) to the LED brightness range (0-255)
  int brightness = map(potValue, 0, 1023, 0, 255);

  // Print the potentiometer value to the Serial Monitor
  Serial.print("Potentiometer Value: ");
  Serial.println(potValue);

  // Set the LED brightness based on the potentiometer value
  analogWrite(ledPin, brightness);

  // Add a small delay for readability
  delay(100);
}
```

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