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/*
Experiment No. :    09

Statement      :    Lit an LED with brightness equal to 0%, 25%,
                    50%, 75%, 100% via serial monitor window.

Date of Exp.   :    / /

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*/
void setup() {

    pinMode(3, OUTPUT); // Configures pin 3 as an output pin.

    Serial.begin(9600); // Initializes serial communication with a
                        baud rate of 9600.
}

void loop() {
    // Checks if there is data available to be read from the serial
    port.
    if (Serial.available() > 0) {
        // Reads a single character from the serial port.
        char key = Serial.read(); // Reads a single character
                                from the serial port.

        // Switch statement to perform actions based on the character
        received.
        switch (key) {

            case '1': // If '1' is received, sets the output on pin 3 to
a PWM value of 50.
                analogWrite(3, 50);
                break;

            case '2': // If '2' is received, sets the output on pin 3 to
a PWM value of 100.
                analogWrite(3, 100);

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        break;

        case '3': // If '3' is received, sets the output on pin 3 to
a PWM value of 150.
            analogWrite(3, 150);
            break;

        case '4': // If '4' is received, sets the output on pin 3 to
a PWM value of 200.
            analogWrite(3, 200);
            break;

        case '5': // If '5' is received, sets the output on pin 3 to
a PWM value of 255.
            analogWrite(3, 255);
            break;
    }
}
```

