JF section 5 practice

```
import java.util.Scanner;

public class TrafficLightSwitch {

    // Enum to define traffic light states
    private enum TrafficLight {
        RED, YELLOW, GREEN
    }

    // Method to get the next traffic light based on current light
    private static TrafficLight getNextLight(TrafficLight current) {
        switch (current) {
            case RED:
                return TrafficLight.GREEN;
            case YELLOW:
                return TrafficLight.RED;
            case GREEN:
                return TrafficLight.YELLOW;
            default:
                throw new IllegalArgumentException("Unexpected value: " + current);
        }
    }

    // Method to display the traffic light status
    private static void displayStatus(TrafficLight light) {
        switch (light) {
            case RED:
                System.out.println("The light is RED. Please stop.");
```

```
            break;
        case YELLOW:
            System.out.println("The light is YELLOW. Prepare to stop.");
            break;
        case GREEN:
            System.out.println("The light is GREEN. You may go.");
            break;
    }
}

public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);

    // Initial state of the traffic light
    TrafficLight currentLight = TrafficLight.RED;

    while (true) {
        // Display the current light status
        displayStatus(currentLight);

        System.out.println("Press 'S' to switch the light or 'Q' to quit: ");
        String input = scanner.next().toUpperCase();

        if (input.equals("S")) {
            // Switch to the next light state
            currentLight = getNextLight(currentLight);
        } else if (input.equals("Q")) {
            // Exit the program
            System.out.println("Exiting...");
            break;
        } else {
```

```
            // Invalid input
            System.out.println("Invalid input. Please enter 'S' or 'Q'.");
        }
    }

    // Close the scanner
    scanner.close();
  }
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            break;
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        case GREEN:
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public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);

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    TrafficLight currentLight = TrafficLight.RED;

    while (true) {
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            } else if (input.equals("Q")) {
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        scanner.close();
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