Switch

Challenge 1: Create a calculator using switch

```
import java.util.Scanner;

public class CalculatorSwitch {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        double a = 10, b = 5;
        char operator = '+';

        switch (operator) {
            case '+':
                System.out.println("Result: " + (a + b));
                break;
            case '-':
                System.out.println("Result: " + (a - b));
                break;
            case '*':
                System.out.println("Result: " + (a * b));
                break;
            case '/':
                System.out.println("Result: " + (a / b));
                break;
            default:
                System.out.println("Invalid operator");
        }
    }
}
```

Output:
Result: 15.0

Challenge 2: Map number to month name using switch

```
public class MonthSwitch {
   public static void main(String[] args) {
      int month = 4;

      switch (month) {
         case 1: System.out.println("January"); break;
         case 2: System.out.println("February"); break;
         case 3: System.out.println("March"); break;
         case 4: System.out.println("April"); break;
         case 5: System.out.println("May"); break;
         default: System.out.println("Invalid month");
      }
   }
}
```

Output:
April

Challenge 3: Implement a simple menu using switch

```
import java.util.Scanner;

public class MenuSwitch {
   public static void main(String[] args) {
      int option = 2;

      switch (option) {
         case 1: System.out.println("Start Game"); break;
         case 2: System.out.println("Load Game"); break;
         case 3: System.out.println("Exit"); break;
         default: System.out.println("Invalid Option");
      }
```

```
    }
}
```

Output:
Load Game

Challenge 4: Use enhanced switch (Java 14+) for better syntax

```
public class EnhancedSwitch {
    public static void main(String[] args) {
        int day = 1;

        String result = switch (day) {
            case 1 -> "Sunday";
            case 2 -> "Monday";
            case 3 -> "Tuesday";
            default -> "Invalid Day";
        };
        System.out.println(result);
    }
}
```

Output:
Sunday

Challenge 5: Implement day of the week based on integer input

```
public class DayOfWeek {
    public static void main(String[] args) {
        int num = 5;

        switch (num) {
            case 1: System.out.println("Monday"); break;
            case 2: System.out.println("Tuesday"); break;
            case 3: System.out.println("Wednesday"); break;
```

```
            case 4: System.out.println("Thursday"); break;
            case 5: System.out.println("Friday"); break;
            case 6: System.out.println("Saturday"); break;
            case 7: System.out.println("Sunday"); break;
            default: System.out.println("Invalid Day");
        }
    }
}
```

Output:
Friday