1. The Basic Level: Day of the Week

Goal: Practice the classic switch syntax and the default case.

- **Task:** Write a program that takes an integer (1-7) from the user.
- **Logic:** * 1 = "Monday", 2 = "Tuesday", and so on.
    - If the number is outside 1-7, print "Invalid day."
- **Bonus:** Use a switch **expression** (the newer, concise syntax) instead of a switch **statement**.

2. The Multi-Case: Season Finder

Goal: Learn how to group multiple cases together.

- **Task:** Ask the user for the name of a month (string).
- **Logic:** Group the months to output the season:
    - **Winter:** December, January, February
    - **Spring:** March, April, May
    - **Summer:** June, July, August
    - **Autumn:** September, October, November
- **Hint:** In a switch statement, you can stack case labels to execute the same code block for different inputs.

3. The Calculator: Simple Arithmetic

Goal: Use char types and handle basic logic.

- **Task:** Create a mini-calculator. Input two doubles and one char operator (+, -, *, /).
- **Logic:** Perform the operation based on the character.
- **Constraint:** Include a case for division where you check if the second number is zero (to avoid a DivideByZeroException).

4. Relational Patterns: Grade Classifier

Goal: Use relational patterns (<, >, <=, >=) introduced in C# 9.0.

- **Task:** Take an integer score (0-100) and return a letter grade.
- **Logic:**
    - >= 90: A
    - 80 to 89: B
    - 70 to 79: C
    - 60 to 69: D
    - < 60: F
- **Example Syntax:** score is >= 90 => "A"

5. Type & Property Patterns: Shipping Cost

Goal: Handle different object types using the switch expression.

- **Task:** Create a method that calculates shipping costs based on the type of package object passed in.
- **Logic:**
    - If it's a Letter, cost is $2.
    - If it's a Box and its Weight property is > 5kg, cost is $10.
    - If it's a Box and its Weight property is <= 5kg, cost is $5.
    - If it's anything else, throw an exception.