Python Conditionals & Loops - Practice Set

This practice set is based on the topics we've covered so far:

If-Else Conditional Statements, Match Case Statements, For Loops, While Loops, and Break/Continue/Pass Statements.

Use these exercises to practice and solidify your understanding.

1. If-Else Conditional Statements

- 1. Write a program that asks the user for a number and prints whether it is **positive**, **negative**, or **zero**.
- 2. Create a program that checks if a person is eligible to vote (age >= 18).
- 3. Write a program that takes a number from the user and prints "Even" if it is even, otherwise "Odd".

2. Match Case Statements

- 1. Ask the user to enter a day number (1–7) and print the corresponding day of the week using match case .
- 2. Write a program using match case that simulates a simple calculator.
 - 1. Ask the user for two numbers and an operation (+, -, *, /).
 - 2. Perform the operation using match case.

3. For Loops

- 1. Print numbers from 1 to 10 using a for loop.
- 2. Print the multiplication table of a number (entered by user).
- 3. Calculate the sum of all numbers from 1 to 100 using a for loop.
- 4. Print the following pattern using a for loop:

```
*
**
**
***
```

4. While Loops

- 1. Print numbers from 1 to 10 using a while loop.
- 2. Write a program that keeps asking the user to enter a password until they enter the correct one.
- 3. Use a while loop to reverse a given number (e.g., $123 \rightarrow 321$).

5. Break, Continue, and Pass Statements

- 1. Use a for loop to print numbers from 1 to 10, but stop the loop if the number is 7 (use break).
- 2. Print numbers from 1 to 10, skipping the number 5 (use continue).
- 3. Write a loop that goes through numbers 1 to 5, but does nothing for number 3 (use pass).