Chapter 3 - Exercises:

Exercise 1:

Write a program that receives a password from the user and checks its strength based on the following criteria:

- If the password is **8 or more characters long**, print: *"Strong password."*
- If the password is **between 5 and 7 characters long**, print: *"Medium-strength password."*
- If the password is **less than 5 characters but greater than 0**, print: *"Weak password."*
- Otherwise, inform the user that the input is invalid.

Exercise 2

A store offers discounts based on the total purchase amount:

- If the total amount is **500 or more**, the customer receives a **20% discount**.
- If the total amount is **between 200 and 499**, the customer receives a **10% discount**.
- Otherwise, no discount is applied.

Write a program to calculate the final price after applying the discount.
The program should prompt the user to input the total amount and display the applied discount and the final price.

Exercise 3

Write a program that accepts three integers from the user representing the sides of a triangle and checks if they can form a triangle. A valid triangle must satisfy the condition: **The sum of the lengths of any two sides must be greater than the length of the third side.**

If the sides form a triangle:

- Print the type of triangle:
  - *Equilateral*: All sides are equal.
  - *Isosceles*: Exactly two sides are equal.
  - *Scalene*: All sides are different. Otherwise, indicate that the input does not represent a valid triangle.

Example Outputs:

- Input: 3, 4, 5 → Output: "The sides form a scalene triangle."
- Input: 1, 2, 3 → Output: "The sides do not form a triangle."

Exercise 4

Write a program that accepts three integers x,y,z from the user and checks the following conditions:

1. x must be within the range 5 to 15 (inclusive).
2. y must be divisible by 3.
3. The square of z must be greater than 50.

After evaluating these conditions, print how many of them are satisfied for the input values.