Week 2 practice tasks

Note: All of these tasks should be done by writing functions in a separate file having extension “py”. E.g

%run try.py

Q1: Write a program to find the sum of all numbers from 1 to N, where N is provided by the user.

Q2: Create a program to calculate the factorial of a given number N using a loop.

Q3: Write a program to generate the Fibonacci sequence up to N terms, where N is provided by the user.

Hint: 0, 1, 1, 2, 3, 5, 8, 13, 21

Q4: Write a program to reverse a given string using a loop.

Q5: Create a program that calculates the ticket price based on the age group of the passenger: Children (age < 12), Adults (age 12-64), and Seniors (age ≥ 65).

* If the age is less than 12, the ticket price is set to $5 for children.
* If the age is 12 or older but less than 65, the ticket price is set to $10 for adults.
* If the age is 65 or older, the ticket price is set to $7 for seniors.

Q6: Create a program that compares three numbers and prints the largest one.

Q7: Write a program that prompts the user to enter a sentence and then counts the number of words in the sentence. A word is defined as a sequence of characters separated by spaces.

Your program should perform the following steps:

* Prompt the user to enter a sentence.
* Count the number of words in the sentence.
* Print the total number of words in the sentence.

**Hint:** split()