

Algorithm exercise - Factorial:

Write a function that takes a positive integer as input and returns the factorial of that number. For example, if the given number is 5, the function should return 120 ($1 * 2 * 3 * 4 * 5$).

String manipulation exercise - Palindrome:

Write a function that checks whether a word or phrase is a palindrome. A palindrome is a word that is read the same from left to right as from right to left, ignoring spaces and differentiating between case and emergency letters.

Web development exercise - Contact Form:

Create a simple web page containing a contact form with fields for name, email, subject and message. When submitting the form, the data must be validated (for example, checking that the email field has a valid format) and displayed in an area below the form.

Data structure exercise - Stack:

Implement a stack data structure in a programming language of your choice. Then write functions to push (push) an element, pop (pop) an element, and check if the stack is empty.

Object Oriented Exercise - Bench:

Create a "Bank Account" class with methods for depositing, withdrawing and checking the balance. Then create subclasses for different account types, such as "Savings Account" and "Checking Account", with specific rules for each account type.

File manipulation exercise - Word Count:

Write a program that counts the number of words in a text file given as input. The program must disregard whitespace and evaluation.

Recursion exercise - Fibonacci:

Write a function that calculates the nth number in the Fibonacci sequence. The Fibonacci sequence is formed by adding the two previous numbers, starting with 0 and 1 (or 1 and 1, depending on the initial order), and the first numbers in the sequence are: 0, 1, 1, 2, 3, 5, 8, 13, ...