Assignment 1

Description

The purpose of this assignment is to be familiarize with the basics of the C programming language.

Create the following functions:

Function 1: (5 marks)

Determines if an integer number is a prime number. This function only accepts integer number values between 1 & 100 (inclusive). If number passed as parameter is out of range, the function returns 0. This function returns 1 or 0 for true or false

Function 2: (5 marks)

Calculates all the factors of an integer number and computes an integer array with all the distinct integer factor values. This function only accept integer number values between 1 & 100 (inclusive).

Example: Calling this function and passing an integer number of 50 generates the array of integers of 1,2,5,10,25,50

Function 3: (5 marks)

Write a function that counts the number of occurrences 1 character appears in the string (case-insensitive). This function returns an integer value.

Example: Calling this function and passing the string of "hellOo WoOrld" and the character 'o' returns the value of 4

Function 4: (5 marks)

Write a function that strips all vowels from a string and generates a new string without vowels (case insensitive)

Function 5: (5 marks)

Write a function that strips all numerical values from a string and generates a new string without numerical values.

Grading

This assignment will be graded out of 25 marks. Make sure your code is humanly readable! Use meaningful variable names, clearly document the purpose of variables and code, and follow the Java indentation rules.

Submission

Submit the assignment electronically through SLATE. Submit only the source file. Do not submit any test files or the executable. Your source file should be named **YourNameA1.c**

This assignment is individual work and is subject to the Academic Integrity Policy. You are already familiar with this policy, but email me before submission if you have any doubts!