

Teach2Give Coding Assessment

Instructions

1. Complete this assessment in any programming language you are comfortable with.
2. After completing your solutions, push them to a single GitHub repository then submit the link to your solution (the GitHub repository) via email to dennis.otwoma@teach2give.com. Please remember to include the name you used during your application when submitting your solutions.
3. Submit within two days of receiving this assessment.

Question 1: Count Vowels

Write a function named `countVowels` that takes a single string as input and returns the number of vowels present in the string. The vowels are 'a', 'e', 'i', 'o', and 'u', and they can be either uppercase or lowercase.

Examples:

- `countVowels("hello world")` should return 3
- `countVowels("The quick brown fox")` should return 5
- `countVowels("AEIOU")` should return 5
- `countVowels("Python Programming")` should return 4

Question 2: Reverse a string

Write a function named `reverseString` that takes a single string as input and returns a new string with the characters in reverse order.

Examples:

- `reverseString("hello")` should return "olleh".
- `reverseString("JavaScript")` should return "tpircSavaJ".
- `reverseString("12345")` should return "54321".
- `reverseString("A man a plan a canal Panama")` should return "amanaP lanac a nalp a nam A"

Question 3: Filter even numbers

Write a function named `filterEvenNumbers` that takes an array of numbers as input and returns a new array containing only the even numbers.

Examples:

- `filterEvenNumbers([1, 2, 3, 4, 5])` should return [2, 4].
- `filterEvenNumbers([10, 15, 20, 25])` should return [10, 20].
- `filterEvenNumbers([7, 11, 13])` should return [].
- `filterEvenNumbers([0, -2, -4])` should return [0, -2, -4].