Lesson 23 – JavaScript Functions & Variable Scope

**Goals:**

* Create and use functions in modular JavaScript programs.
* Declare and use local and global variables. Understand the concept of variable scope.

**Functions:**

* read and try: <https://www.w3schools.com/js/js_functions.asp>
* complete exercises: [[1]](https://www.w3schools.com/js/exercise_js.asp?filename=exercise_js_functions1), [[2]](https://www.w3schools.com/js/exercise_js.asp?filename=exercise_js_functions2), [[3]](https://www.w3schools.com/js/exercise_js.asp?filename=exercise_js_functions3), [[4]](https://www.w3schools.com/js/exercise_js.asp?filename=exercise_js_functions4)

**Variable Scope:**

* global and local variables: <https://www.w3schools.com/js/js_scope.asp>
* closures and private variables: <https://www.w3schools.com/js/js_function_closures.asp>

**Exercises:**

1. Write a JavaScript function reverse(s) that returns a reversed string.

Example string = "webmaster"

Expected output: "retsambew"

1. Write a JavaScript function that checks whether a passed string is palindrome or not. A palindrome is a word or a sequence that reads the same backward as forward, e.g. "madam" or "nurses run".

*Note*: The function from the exercise 1 may be used to reverse the string, but you need to remove any whitespaces beforehand.

1. Write a JavaScript function that returns a passed string with letters in alphabetical order.

Example string: 'webmaster'

Expected output: 'abeemrstw'

Assume punctuation and numbers symbols are not included in the string.

1. Write a JavaScript function that check if the input number is prime or not.

*Note*: A prime number (or a prime) is a natural number greater than 1 that has no positive divisors other than 1 and itself.