***Intekglobal***

JavaScript

Exercise 1 (Chapter 1~6)

Estimated Time: 24 hours

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1. Given an array of words, write a function that will sort the array in ascending order. It should also take an optional argument that can customize the sorting order. Custom sorting orders:
    a. descending
    b. sort by length ascending/descending
    c. sort by number of consonants ascending/descending.

    **Estimated Time: 1 hour.**

2. Create a function that can limit the execution of other functions to a determined amount of times.
    a. Example:

    ```
    function limitFunc (fn, num) { ... }
    var limited = limitFunc (fn, 2);
    limited (); // executes fine
    limited (); // executes fine
    limited (); // does not execute
    ```

    **Estimated Time: 6 hour.**

3. Create a function that will set the color, font-size, and background color of a DOM element.
    a. If there are fewer arguments, it should place a default value.
    b. Use the *this* parameter to access the values of the DOM element. (e.g. this.color or this.style.color)

    **Estimated Time: 2 hour.**

4. Create a function that can copy either all or specific properties of an object into another. The functionality should depend on the arguments received.

    ```
    // properties of objB are copied onto objA
    copyProp(objA, objB);

    // only properties p1 and p2 from objB are copied over to objA
    copyProp(objA, objB, ["p1", "p2"]);
    ```

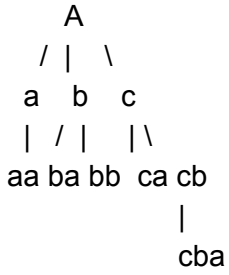
    **Estimated Time: 2 hour.**

5. Create a function that will:
    a. return the number of vowels in a string
    b. return the number of digits in a whole number using logarithm operations.

    Must be the same function.

    **Estimated Time: 5 hour.**

6. Create a tree structure and a function that will display all of the elements in that tree. The function should not require any change in case the structure changes.
    a. Example of tree structure, not of expected output:




**Estimated Time: 8 hour.**