Lab 6 Instructions, Selection, Group C
CS 133JS, Beginning Programming: JavaScript

Overview

The objective of this lab is to give you practice using:

- Creating objects
- Working with object properties
- Working with object methods
- Using object constructors
- Working with complex objects

Part 1: Object Exercises

A web page, *ObjectExercises.html*, has been written for you that contains code to call functions and use code that you will write in a file named *ObjectExercises.js*. The instructions for writing your functions and the code to test your functions are in *ObjectExercises.html*, but all the code you write will go in *ObjectExercises.js.*

Part 2: Web Apps

You will create two web apps. The HTML page for each of these has already been written for you. You will just write the JavaScript file.

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<u>Web App I for Group C – ToDo List</u>

This web app displays a list of tasks and allows a user to add tasks, set priories and mark tasks as finished.

This is a new version of the ToDo List app you made previously using arrays. This one will use objects.

Implementation:

1. Declare a global one-dimensional array named *tasks.*
2. Define an object constructor named *Task* with the following properties:
   a. *description* – the task description
   b. *priority* – a number
   c. *complete* – Boolean, *true* if the task is complete
3. Write three functions:
   a. *addTask*
      This function will add an element containing a *Task* object to the *tasks* array.
      - Has two parameters: a string describing a task, and a priority number.
      - Returns nothing.
   b. *removeTask*
      This function removes a task from the Task List by removing the specified element from the *tasks* array. The function:
      - Has one parameter: an array index for the *tasks* array.
      - Returns *true* if the index is valid.
        (Valid means the index is greater than zero and less than the length of the array.)
      - Hint: use the *splice* method to remove the element for this task from the array.
   c. *changeDone*
      The purpose of function is to cause the word "Done" to appear or disappear next to a task's check box depending on whether the box is checked or un-checked.

      The function does this by setting the *complete* property of the specified *Task* object to either true or false. The function:
      - Has two parameters: an array index number and a Boolean completion value.
      - Returns *true* if the index was valid.

This is a screenshot of a working Grade Book web app after two additional tasks were added to the list and two check-boxes were checked.

ToDo List

	Task		Priority	Done
1	Brush the unicorns	Delete	3	☐
2	Feed the dragons	Delete	1	☑ Done
3	Bathe the lions	Delete	2	☐
4	Walk the llamas	Delete	4	☑ Done
5	Clean the griffon's pen	Delete	5	☐
Clean the griffon's pen		5		Add Task

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<u>Web App II for Group C – Coming Soon</u>

I'm still working on the instructions for this one. I'll have them ready later today.

Submitting your lab work on Moodle

<u>Beta Version</u>

Post the following in the *Lab Beta forum*:

1. The web pages you created for part 2.
    (Zip the files for you web pages and attach them to the post.)
2. A code review of your lab partner's web page for part 2.
    (Review the part 2 web apps for one of your lab partners using the Code Review Form provided.)

<u>Code Review</u>
1. Submit a copy of the code review above to the *Lab Code Review assignment*.

<u>Production Version</u>
You may revise your beta version before submitting the production version. On the code review form you received from your lab partner, complete the "Production" column to show what you did or did not revise.

Upload the following to the *Lab Production Version* assignment:

1. A zip file containing the two files (.html and .js) for part 1.
2. A zip file containing the four files for part 2.
3. The code review <u>from</u> your lab partner with the <u>"Prod" column filled in by you</u>.