

Lab 6 Instructions, Objects, Group B

CS 133JS, Beginning Programming: JavaScript

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 App

Web App for Group B – Price List

This web app displays a list of products and prices. A user can add items to the list and enter prices.

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

Implementation:

1. Declare a one-dimensional global array named *products*. This will hold *Product* objects.
2. Define an object constructor named *Product* with the following properties:
 - a. *name*
 - b. *price*
3. Write three functions:
 - a. *addProduct*
This function will add an element containing a *Product* object to the *products* array. The function:
 - Has one parameter: a string containing a product name.
 - Returns nothing.
 - When creating a *Product* object, set the *price* property to a default value of 0.
 - b. *removeProduct*
This function will remove an element from the *products* array. The function:
 - Has one parameter: a string containing a product name.
 - Returns *true* if the product was found before deleting it.

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- Hint: use a loop to find the element of the *products* array containing the correct product, then use the *splice* method to remove it.

c. *changePrice*

This function will change the price of a product by changing the *price* property of the *Product* object at the specified index in the array. The function:

- Has two parameters: an array index number and the new price number.
- Returns *true* if the index is valid.
(Valid means the index is greater than zero and less than the length of the array.)

This is a screenshot of a completed web app:

Price List

Product			Price	
1	Tent	Delete	195.00	<input type="text"/> Enter
2	Backpack	Delete	115.00	<input type="text"/> Enter
3	Camp stove	Delete	55.00	<input type="text"/> Enter
4	Hiking Boots	Delete	179	<input type="text"/> Enter
5	Water filter	Delete	35	<input type="text"/> Enter
<input type="text"/> Add Product				

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Submitting your lab work on Moodle

Beta Version

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.)

Code Review

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

Production Version

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 from your lab partner with the "Prod" column filled in by you.