# Obligatory assignment, week 10

## 1 General considerations

Create **ONE** web page with HTML, CSS, and JS similar in complexity with the examples given to you on the pages 141–143 and 178–181 of the syllabus book “JavaScript & jQuery” by John Duckett.

You may continue to work with the page or topic from the previous assignment, by adding to it the features/functionality required by the present assignment.

If you choose another topic make sure that:

→ this is different from the examples in the syllabus book, and

→ that the styling and complexity level covers the requirements from the previous assignment.

## 2 Defining a goal and designing the script

In a separate file – this can be created in any program you like (e.g., Microsoft Word) and should be saved as **.pdf**:

a) define the goal of your script,

b) break the goal in a series of tasks that have to be performed to achieve the goals,

c) sketch out the tasks in a flowchart

For a reminder of the theory related to planning and designing the script:

- besides the lecture notes from week 5,
- see pp. 22 – 23 in the “JavaScript & Jquery. Interactive front-end development.” syllabus book.

## 3 The implementation of the script

Your script should contain the following:

I. **Objects**

For a reminder of the theory related to creating / working with objects:

→ besides the lecture notes from week 7 on objects,

→ see pp. 100 – 119 in the "JavaScript & jQuery. Interactive front-end development." syllabus book.

Example of objects that you could create:

→ if you have a website about shoes, you might create several Shoe objects, with properties such as size, color, brand, number of pairs in stock, and a method that displays how many pairs of the respective item are left in stock.

**TODO**

a) Create at least **three objects** using the constructor notation (use a function as a template for creating these objects).

→ specifically about how to create many objects using a function as a template, see pp. 108-109.

b) The objects should have at least **five** properties and **one** method.

c) The properties should contain values of at least these data types: string, number, Boolean, and array.

d) Add and remove properties (at least one) from the objects you have created

→ specifically on how to add/remove properties, see p. 112.

e) Display information about your objects to the user (interface).

→ see the examples from pp. 110 – 111.

II. **Built-in objects**

For a reminder of the theory related to working with built-in objects:

→ besides the lecture notes from week 8 on built-in objects,

→ see pp. 120 – 139 in the "JavaScript & jQuery. Interactive front-end development." syllabus book.

**TO DO:**

a) Use **one** property **or** method of the *window object* to add functionality/ information that is relevant for your web page. You are free to choose the property/method.

→ see p. 124 for a list of properties/methods you can choose from

Example of usage:

→ Use the *window.location* to display to the user the URL for your page, for sharing purposes.

b) Use **one** property **or** method of the *document object* to add functionality/ information that is relevant for your web page. You are free to choose the property/method.

→ see p. 126 for a list of properties/methods you can choose from

Example of usage:

→ Use the *document.lastModified* to display to the user the date on which your page was last modified.

c) Use **one** property **or** method of the *string object* on at least one of the string values that you have in your web page.

→ see p. 128 for a list of properties/methods you can choose from

Example of usage:

→ Use the method *toUpperCase* to display the names of the products in uppercase characters.

d) Use **one** method/property of the *number object* **OR** the *Math object.*

→ see p. 132 / p. 134 for a list of methods/properties you can choose from

Example of usage:

→ Use the method *Math.random()* to randomly choose from an array which product to display as feature product.

e) Use **one** method of the *Date object* to get/set the date and time for the Date object that you have created.

→ see p. 137 for a list of methods you can choose from

Example of usage:

→ Use the method *getFullYear()* to display the date your web page was created, as you can see in the example on the page 138.

## III. **Decisions and loops**

For a reminder of the theory related to decisions and loops:
→ besides the lecture notes from week 9,

→ see *Ch. 4 Decisions & Loops* in the "JavaScript & jQuery. Interactive front-end development." syllabus book.

**TO DO**

a) Use a *else if* **OR** a *switch* statement to decide which message to display to the user of your website based on a condition.

→ for documentation on *else if* statements see the lecture from week 9 on Decisions, documentation on Mozilla Developer (https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Building_blocks/conditionals#else_if ), or “Ch. 5.3.2 else if”, p. 102, of the Flanagan syllabus book.

→ for *switch statements* see pp. 164-165 of the “JavaScript & jQuery. Interactive front-end development.” syllabus book.

b) Use **one** *for loop* to display the elements in an array you are using in your script

→ see pp. 171-181 of the “JavaScript & jQuery. Interactive front-end development.” syllabus book.

→ for one concrete example of how to loop through an array see also https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Building_blocks/Looping_code#looping_through_collections_with_a_for_loop

# 4 Comments

You are expected to comment the code of your script.
The comments should
→ explain in detail your implementation and
→ show your understanding of the theory that you have learned from the syllabus and lectures, as applied to your specific implementation.

**IMPORTANT:** Refer to the task number the respective code is implementing, e.g., /** Implementation of the task 3. I. b) … */

# 5 Delivery

All the files for your website should be included in **one** folder named
*IIKG2001_oblig3_YourName / IDG1011_oblig2_YourName*
The folder should be packaged as **a .zip file** and delivered in Blackboard.
The folder should contain:

- ☐ a **script.js** file with the JavaScript code (see section 3.The implementation of the script|outline)
- ☐ a **styles.css** file with the CSS code
- ☐ a **index.html** file with the HTML code
- ☐ a **.pdf** file containing the design of your script (see section 2.Defining a goal and designing the script|outline)
- ☐ a folder with images