



ASSIGNMENT 1

JavaScript

(handout for students)

Total: 44 marks

This JavaScript Assignment is **creative**. We will look for and mark:

1. Good code practices (e.g. comments, variable naming, formatting)
2. Creativity that is taken to implement the answer
3. Using constructs taught in all JavaScript lessons
4. Effective use of coding constructs (correct location, choice makes sense)

Full marks will be awarded for demonstrating concepts fully, there will be partial marks available for attempts.

There are 2 questions for this assignment:

- 1 creative coding question
- 1 research question with 3 topics

What to submit:

Submit a link to your <https://codepen.io/> solution of the problems **and** a downloaded version of your code. If you use multiple files, make sure to submit all. You can use any format to answer the research questions, commenting out JavaScript in the code file also works!

Top tips:

- Read all requirements carefully before starting
- Check the mark distributions as provided below
- It could be useful to start with research questions

Question 1

(32 marks)

Create a web app that takes input from the user and updates the web page based on the input. The HTML and CSS should be simple but present. The primary focus is on JavaScript.

Remember to come up with a unique creative problem or scenario!

Marks:

1. 5 points for creativity
2. 4 points for commenting, variable naming, and code formatting
3. 23 points for meeting the requirements (coding concepts taught and their use)

You should:

- + Use **boolean** values and **if..else** statements to branch logic of your program
- + Use a **data structure** like an array to store values
- + Use a **loop or a while loop** to reduce repetition
- + Use **functions** to make code reusable
- + Use **console.log and alert** appropriately to display messages
- + Use some **HTML and CSS** to create a basic website. Use at least 4 different HTML tags and style at least 2 of them. This does not need to look good! It is just a demo of what is covered.
- + Get **input from the user on a web page**
- + **Make changes to the HTML or CSS using JavaScript**
- + Use an **event** to trigger a change to a web page

Each of the above-mentioned requirements is worth **2-4 points**.

If you cannot come up with a creative idea you can use this scenario, but **5 points out of the total mark are for creativity** and you will receive 0 for creativity:

"A website that allows users to customise their lunch order by selecting from several options like in a Subway. After selection, the website offers to make it a meal deal with a drink and a snack. At the end, it displays a new total depending on prices. The website has a simple style with a couple of CSS rules and a simple UI. An alert for cookies or discounts pops up at some point."

Question 2

(12 marks total)

Research and show how would you use it. Short answers explain the topic fully, but concisely in a sentence or two.

Mark scheme:

1. Each short answer is worth 1 point
2. Each example is worth 1 point

You should:

1.
 - Research `unshift()`, `shift()` and `split()`
 - Write a short answer and explain what each one of them does
 - Use `unshift()`, `shift()` and `split()` each in an example with **theme 'CFGdegree'**
2.
 - Research object methods
 - Write a short answer and explain what they are
 - Use object methods in an example by creating a new object and object methods with the **theme 'Programming Languages'** (worth 2 points instead of 1)
3.
 - Research 3 DOM events `onmouseover` and two of your choosing
 - Write a short answer and explain what each one of them does