Assignment set by David Coyle – 11 October 2018

COMP30680 Web Application Development

Assignment 2: JavaScript and JSON

This assignment focuses on the use of JavaScript to read and manipulate JSON data. The data needed for this assignment is included in the file 'nobelWinners.json'. It provides information on Nobel Prize winners from 1901 to 2018, across five categories.

Your job is to present this data in a webpage. To do this you will need to combine HTML, CSS and JavaScript.

Requirements:

1. Begin by creating a webpage called nobels.html. When this page is opened in a browser it should give a simple introduction to the purpose of the webpage. It should also include an interface that allows the user to make the following selections.
    - Identify a range of years for which the Nobel winners will be displayed, e.g. 1920 to 1940. The user must set a range on this option.
    - Identify a category of winners to display, e.g. physics. This selection is optional. If no option is chosen the results across all five categories should be displayed.
    - Identify a country of birth for which the winners will be displayed, e.g. Ireland. This selection is optional. If no option is chosen the results across all countries should be displayed.
    - A submit button.
2. When the user clicks the submit button the webpage should update to display the following information for each Nobel Prize winner, based on the criteria selected:
    - The name of the winner.
    - The category of the award they received.
    - The year of the award.
    - By default you should display both male and female winners. But you are required to include radio buttons alongside the results that allow the user to filter the results to display:
        - Only male winners.
        - Only female winners.
        - Both.
3. Your page should allow the user to request more detailed information on a particular Nobel Prize winner, e.g. by clicking on the name or a more information button of a particular winner from the results in step 2 above. When this option is clicked the following additional information for the chosen winner should be displayed: year of birth, year of death (if relevant), city of birth, motivation for the Nobel Prize award, and their affiliations.

Marking

This assignment is worth 40% of the total module mark. You will receive an overall grade for the assignment. In determining the grade, the following weighting will be used:

a) **20%**: for implementing the functionality described in step 1 above.
b) **30%**: for implementing the functionality described in step 2 above.
c) **30%**: for implementing the functionality described in step 3 above.
d) **20%:** overall impression and quality of the overall design. For example, is the information presented in a clear manner and have you included appropriate and effective error handing.

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Submitting

Submit a single zip file using Moodle. The zip file should include a folder containing your webpage and any associated files.

Please name your zip file using the following format: “Firstname_Lastname_A2_COMP30680.zip”.

The deadline for submission is listed on the class Moodle under ‘Assignment 2 submission’.

Code validation:

Your webpage should be consistent with the HTML 5 standard.

Code reuse

The webpage must be your own work. Any code snippets that are not directly written by you (e.g. used from a tutorial) must be referenced as such within your code. You must directly comment the code to explain its source. Failure to reference code that is not yours will be treated as plagiarism.

Viewing the JSON data

In order to get an initial overview of the data in the JSON file, I recommend viewing it in a JSON viewer such as the one available at:

https://codebeautify.org/jsonviewer

This will give you a tree like view of the data, as shown in the screenshot below. In this image we can see that the JSON data contains information on 934 past Nobel Prize winners. You can also investigate the structure of the JSON data, by navigating through the tree view.

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