COMP30680 Web Application Development

Assignment 2: JavaScript and JSON

This assignment focuses on using JavaScript to read, manipulate, and present JSON data on a webpage. The data for the assignment is taken from https://www.nobelprize.org. Two files are supplied:

1. The file `prize.json` provides information on Nobel prizes given from 1901 to 2024.
2. The file `laureates.json` provides further details on the Nobel Laureates from 1901 to 2024.

Your job is to present the JSON data on a webpage. To do this you will need to combine HTML, CSS, and JavaScript, and also cross-reference data between the JSON files. Other languages are not permitted. The use of JavaScript frameworks (e.g. jQuery) is not permitted.

Note:

- All steps outlined below can be achieved without reloading the page or navigating to a new page. If your solution involves reloading the page or navigating to a new page, two grade points will be deducted from your final mark (e.g., A+ to A-).
- All information needed for this assignment is available in the JSON file. Two grade points (e.g., A+ to A-) will be deducted if any information is hardcoded or fetched elsewhere, instead of being read from the JSON files supplied.

Requirements:

1. Create a web page called `laureates.html`. When the page is opened, it should show the top 5 countries (and the number of prizes) in each prize category based on the number of prizes, e.g., for the top five countries with Nobel prizes in physics:
   - Top 5 in Physics:
     1. USA (60 prizes)
     2. United Kingdom (29 prizes)
     3. Germany (26 prizes)
     4. France (11 prizes)
     5. Japan (7 prizes)

2. Add a "**Show Laureates**" button beside each ranked country. On clicking this button, `laureates.html` should show all the laureates from that country under that prize category in a table. The table should be appropriately titled, e.g. "Nobel Laureates in Physics from Japan". The following information should be shown for each laureate:
   - ID
   - Full name
   - Date awarded
   - Category
   - A "Show Details" Button (to be used in Step 3).

3. When the "Show Details" button for a laureate is clicked, the page should display a biography of the laureate **in paragraph form**. How and where this biography is displayed is left to you, but it should contain:
   - Name
   - The prize(s) received and when
   - The motivation for the prize.
   - Age when the prize was received.

   The biography must be in paragraph format, e.g. *"In 1901, at the age of 25, Röntgen received a Nobel prize in physics in recognition of the extraordinary services he has rendered by the discovery of the remarkable rays subsequently named after him"*.

Marking

This assignment is worth 50% 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) **35%**: for implementing the functionality described in Step 1 above.
b) **30%**: for implementing the functionality described in Step 2 above.
c) **25%**: for implementing the functionality described in Step 3 above.
d) **10%:** overall impression and quality of the overall design. For example, have you included appropriate and effective error handling? Is the information presented in a clear and uncluttered manner? Does the website make appropriate use of HTML, CSS, and JavaScript?

Submitting

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

Please name your zip file using the following format: "GroupNo_Firstname_Lastname_A2_COMP30680.zip".

The deadline for submission is listed on BrightSpace under assignment 2.

Viewing the JSON data

To get an initial overview of the data in the JSON query, it is helpful to view it in a JSON viewer such as the one available at http://jsonviewer.stack.hu/. This will give you a tree-like view of the data.

Code validation:

Your webpage should be consistent with the HTML5 and CSS3 standards.

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.