C219 Front-end Web Development

**Graded Assignment**

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| **Instructions**   1. The Graded Assignment will be released on **2 Jan 2024, 8:00am** 2. Refer to [**C219\_Graded Assignment Guide.pdf**](file:///C:\Users\hew_ka_kian\Downloads\C219_Graded%20Assignment%20Guide.pdf) for Declaration of Compliance form and detailed information on assignment submission. 3. Download the materials from **LEO2.0 > Learning Path > Graded Assignment** 4. You are to complete all the requirements stated for this Graded Assignment 5. Zip your work containing the wireframes, website project folder, enhancements doc (if any) and Declaration of Compliance document in this format:  **<studentId>-<name>-<classcode>\_GA.zip** 6. The deadline for submission is **2 Feb 2023, 11:59pm** 7. Submit your deliverables in **LEO2.0** and **SA2.0.** |

**Brief**

**Name of web app:** School Library Web App

**Objective:** Design and develop a responsive **Single Page Web Application** for a school library with advanced features for user interaction and data visualization.

**Web technologies:** HTML, CSS and JS. You are allowed to use any CSS or JS frameworks and libraries. No videos and animated GIFs are allowed.

**Specific Sections**

1. Header Section:
   * Contains the library's logo on the left.
   * A horizontal navigation menu on the right with links to the following different sections.
2. Search Section:
   * A prominent search bar in the centre for book searches.
   * The Book Display section will filter the books to show that match the search.
3. Book Display Section:
   * Books displayed in a grid layout on larger screens, switching to a single column on smaller screens.
   * Each book item shows the cover, title, author, and a "Reserve" button.
   * Hover effects or tooltips providing more information about each book.
4. Stats Section:
   * An interactive chart (you may want to use Chart.js) displaying library statistics, like the most popular genres.
   * The statistics can be based on some plausible data
5. Inventory Section:
   * A table (you may want to use DataTables) listing the library's inventory with features like search, sort, and pagination.
6. Footer Section:
   * Contains contact information, social media links, and possibly a small site map.

**Interactive Elements and Animations**

* Tooltips and Popovers: When hovering over book titles or other elements, small tooltips (you may want to use Tippy.js) provide additional information.
* Subtle Animations: subtle animations (you may want to use Anime.js) like fading in of sections or smooth transitions enhance the user experience.
* Responsive Modals: clicking on a book could open a popup with more detailed information, including reviews and availability.

**Functionality**

* Search and Filter: Users can search for books and filter results based on various criteria.
* Book Reservation: When the “Reserve” button is clicked, change the button text to “Reserved” and disable the button to reflect the reservation status.

**User Experience**

* Ease of Navigation: Clear and intuitive navigation throughout the site.

**Enhancements**

* You are encouraged to enhance your web app with better interactivity and functionality, and it will count towards your grade.

**Sample Wireframes**

Here are some sample wireframes for reference, which should help you gain a better understanding of the requirements. Ideally, you should aim to enhance the design based on these examples.

**Home section highlighting tooltip and “Reserved” button:**

A screenshot of a book

Description automatically generated

**Home section showing modal:**

A screenshot of a book

Description automatically generated

**Stats section:**

A graph of different colored bars

Description automatically generated

**Inventory section:**

A screenshot of a library

Description automatically generated

**Deliverables**

1. High fidelity wireframes
   1. Design **high fidelity wireframes** for all your sections
   2. Submit your wireframes in JPG format in the folder **Wireframes**
2. Website folder
   1. Name your folder **Website**
   2. Organise and name all your files appropriately.
   3. Ensure only relative paths are used in links to your own files and assets. Any broken links that require code modification during grading will be penalised.
   4. You are to implement **external** stylesheets and scripts
   5. Your HTML page should be named as **index.html**
   6. Your stylesheet should be named as **style.css**
   7. Your JS file should be named as **script.js**
   8. All other assets should be stored in a folder
3. Enhancements
   1. List the enhancements you had implemented in enhancements.docx to ensure the evaluators will not miss them.
4. Zip your work containing the wireframes, website project folder, enhancements doc (if any) and Declaration of Compliance document in this format:   
   **<studentId>-<name>-<classcode>\_GA.zip**

Your website will be evaluated using **Google Chrome**. Please ensure that you optimise your website to display and work well in Google Chrome.

**Grading Criteria**

You will be graded based on:

* Website design and visual appeal
* Requirements of the web application and enhancements
* Quality of graphics and animation
* Complexity of features
* Efficiency of code
* Organisation and naming conventions of files and assets
* Understanding of your code demonstrated during interview in lesson 13

**Resources**

CSS frameworks:

* [Bootstrap](https://getbootstrap.com/)
* [Semantic UI](https://semantic-ui.com/)

JS libraries:

* [jQuery](https://jquery.com/)
* [Bootstrap Modal](https://getbootstrap.com/docs/5.1/components/modal/#fullscreen-modal)
* [Anime.js](https://animejs.com/)
* [Tippy.js](https://atomiks.github.io/tippyjs/)
* [Chart.js](https://www.chartjs.org/docs/latest/developers/api.html)

Graphics:

* [Freepik](https://www.freepik.com/)
* [Flaticon](https://www.flaticon.com/)

Fonts:

* [Google Fonts](https://fonts.google.com/)

Design inspiration:

* [Dribble](https://dribbble.com/tags/quiz)