SIT120 - Introduction to Responsive Web Apps

Distinction Task 3.1D: The Project+

Overview:
In this task, you are required to implement new concepts and add additional features to your project implementation in Credit Task 2 [OnTrack Task 2.2C - The Project] and improve its functionality and overall look. *All the features should be built only using HTML, CSS, and Vue 3. No third-party libraries or frameworks can be used.*

1. Concepts [not limited to] that must be implemented.
    a. HTML Concepts:
        i. HTML basic elements
        ii. Favicon, Forms, Semantics
        iii. Media: Video, Audio, YouTube
        iv. Graphics: Canvas, SVG
    b. CSS Concepts:
        i. Responsive: viewport, media queries etc.
        ii. Advanced: Transitions, Animations, Multiple Columns etc.
    c. Vue Advanced Concepts:
        i. Advanced navigation with Vue Router
        ii. At least three Vue Components

2. All the concepts that you learned and experimented with in Credit Task 3 [OnTrack Task 2.3C] should be implemented in this project to achieve different features and functionalities.

3. **Responsiveness**: Ensure that your website is responsive and can adapt to different screen sizes. (e.g., Responsive typography, responsive images)

4. Adding interactions on the website: [**MUST choose at least 2**]
    a. Google Maps Integration: For example, consider showing your office location etc.
    b. Visualization Dashboard: Example description below [Use of third-party visualization tools are not recommended]
        i. **Interactive Visualizations**: Implement a variety of interactive visualizations, such as bar charts, line charts, scatter plots, heatmaps, and more. Users should be able to select and filter data points dynamically, zoom in/out, and customize the visual representation.
        ii. **Cross-filtering and Highlighting**: Enable cross-filtering and highlighting across different visualizations. When users interact with one visualization, the other visualizations should update accordingly to provide a synchronized view of the data.
        iii. **Dynamic Data Updates**: Include a mechanism to load new data or update the dataset dynamically without refreshing the entire page. This could be achieved using AJAX or other modern web development techniques. E.g., linking the webpage with social media posts, or adding news to your webpage based on certain keywords.
        iv. **Dataset Selection**: Choose a dataset that is relevant to your project. The dataset should contain multiple dimensions and attributes to explore. e.g., dataset on COVID-19 outset.
    c. Live Chat/Self Chat customer service Functionality (with the bot)
    d. Any pluggable Machine Learning Integration: Example includes Price Prediction in stock market. [You can use your own custom trained model or use already available ML models through APIs]

e. **Backend:** Clear instructions can be found on **MySQL, MongoDB.** You can explore and learn the backend yourself and implement the backend database for this project. Simple *localstorage.getitem()* or l*ocalstorage.setitem()* is not sufficient. Your form input values, any dynamic content etc. should be stored in the database wherever possible.

Note: ***Substantial progress should be reflected from your previous websites in Task 2.2C (The Project).***

Reflection [minimum 500 words]:
Write reflection on above tasks. Also include how you implement different Vue 3 concepts to achieve your website. Briefly mention how this work is different from your proof of concept.

Submission Details:

1. Make sure you follow these instructions strictly.
2. All tasks need to follow these guidelines:
    1. GitHub Repo is a MUST. No zip files will be accepted. Please maintain one task sheet submissions in one GitHub Repo. Don't group all task sheets in one GitHub repo. [If you are keeping repo private then add tutors as collaborators]
    2. Demo video MUST be submitted. It MUST show website/app running successfully. Share your video through Deakin air, SharePoint, or unlisted YouTube link etc. (You can do the screen recording through Zoom, Zoom is free for all Deakin students)
    3. Provide direct link to both GitHub repo and video separately.
    4. Submit PDF report including reflections, screenshots etc.
3. Plagiarism is unacceptable.
4. Due date: Please follow OnTrack due date.