

Contribution to the NYC Volunteer Management System

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Group No: 17

Project Role: Frontend Developer - Volunteer Point Management, Home Page and Report Page

The Nedlands Yacht Club Volunteer Management System (NYC VMS) is a comprehensive platform aimed at streamlining the management of volunteers, their activities, and their performance across various events held at the club. The system handles several functionalities, including volunteer management, team and event creation, activity tracking, and reward points distribution and its reporting based on volunteer hours. My primary role in this project was to design and develop the front end of the Volunteer Point Management and Report sections, along with key features like the Home Page and Navbar, using React.js.

Project Link: <https://github.com/miacheng2/CITS5206-capstone>

My Contributions

1. Volunteer Point Management Pages (Refer: Appendix 1)

One of my main responsibilities was the design and development of this section, which allows administrators and team leaders to log, track, and manage volunteer activities. This plays a crucial role in the system as it handles the assignment of points based on volunteer hours, essential for reports and monitoring.

- **Responsive Table for Data Entry:** I created a responsive and interactive table that allows the selection of volunteers and their corresponding activities. Users can log the start time, end time, and events, which are automatically converted into volunteering hours and points based on a predefined formula.
- **History checking:** As part of this section, I designed two more pages: one that displays all accumulated points for volunteers and another that identifies volunteers with over 200 points in the financial year. Both pages include a notification system and offer CSV download capabilities, enhancing the administrative efficiency and recognition processes.
- **Efficient User Interaction:** Enhanced table functionality with a dynamic search feature for quick volunteer look-up by name or ASN, and integrated reliable data submission buttons with error alerts for each row to ensure data integrity and simplify administrative tasks.

2. Report Page Development (Refer: Appendix 2)

The Report Page overviews volunteer activity across the club, offering insights into total volunteering hours, points awarded, and top performers. I designed this page to ensure that critical data is accessible in a clean and structured format.

- **Downloadable CSV Reports:** I implemented a feature allowing administrators to export volunteer data (e.g., total volunteering hours and points) into CSV format. This functionality was crucial for enabling the NYC team to keep detailed records and generate reports easily.
- **Team Performance Graph:** Developed a performance graph that visualizes the volunteer efforts and team contributions over time. This graph helps stakeholders quickly assess the performance of different teams based on their accumulated points.

- **Top Performers Section:** Integrated a section that highlights the top-performing volunteers based on the points they earned. This was a highly requested feature from the client as it supports volunteer recognition programs.

3. Home Page and Navigation Bar (Refer: Appendix 3)

The Home Page is the face of the Volunteer Management System, and I ensured that it not only meets the client's aesthetic expectations but also offers an intuitive entry point to the system's core features.

- **Feature Cards for Quick Navigation:** Created visually appealing feature cards on the homepage that direct users to key areas to highlight the main features of the system and provide easy access to admins and volunteers.
- **Responsive Navbar:** The Navbar allows users to navigate between the various sections of the system effortlessly. I used React's useState to manage the state of the navbar, ensuring that the login/logout button dynamically updates based on the user's session status.

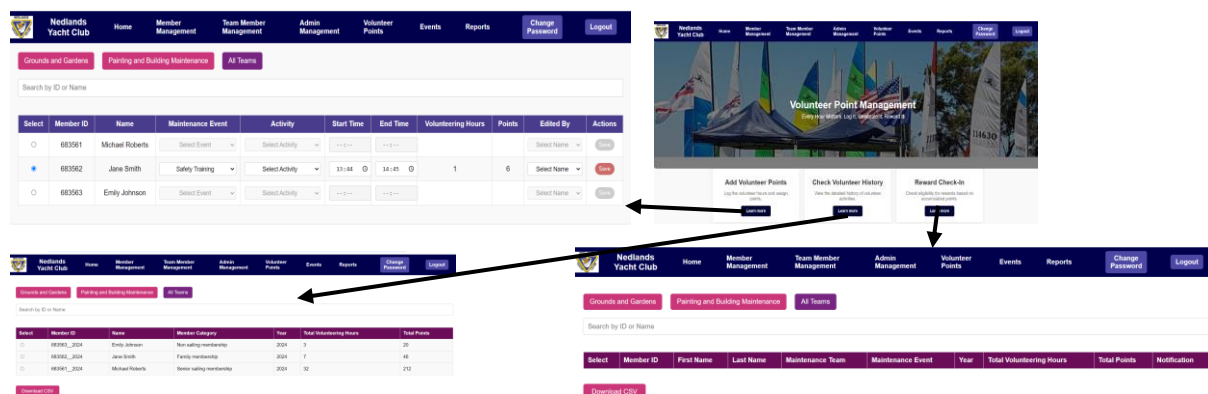
4. Stakeholder Interaction and Requirements Gathering:

Client-Centric Development Approach: Engaged directly with the client to meticulously gather and refine system requirements, ensuring the delivered solution was fully aligned with the operational goals and user expectations. Throughout the development process, I actively engaged with both my groupmates and the project facilitator to discuss the evolving design and functionality of the system. This collaborative feedback loop ensured that each modification and enhancement was aligned with user needs and project goals, resulting in iterative improvements to the pages.

Challenges Faced

One challenge involved ensuring the seamless functionality of dynamic calculations for volunteer hours and points across different browsers, which required extensive cross-platform testing and adjustments to date and time input formats. Another significant task was optimizing the user interface to efficiently handle large datasets, enhancing performance without compromising responsiveness. Additionally, I ensured that interactive graphs displaying volunteer activity functioned correctly, providing valuable insights without performance lags.

Appendix 1

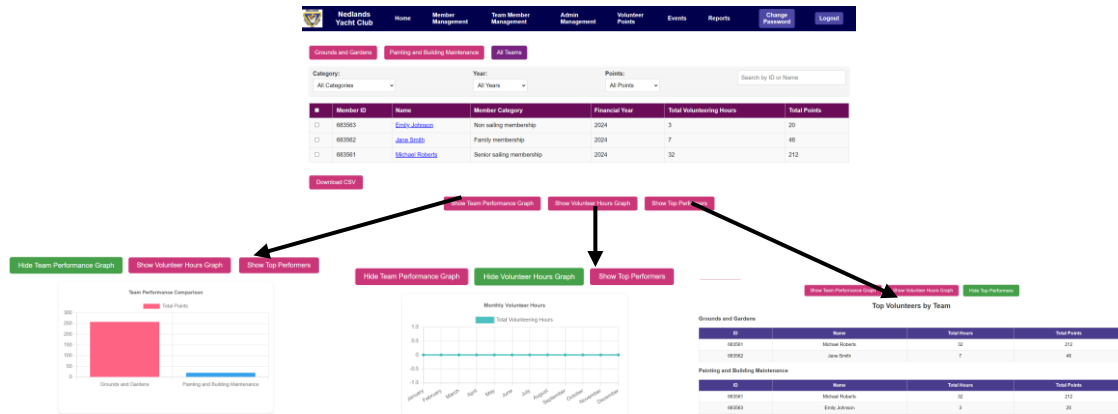


https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/AddVolunteerPoints.js

https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/stylesAdd.css

https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/CheckVolunteerHistory.js

https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/styles.css



https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/report.css



https://github.com/miacheng2/CITS5206-capstone/blob/main/Front_end/src/components/styles/Navbar.module.css

