INFT 2202

Assignment 1
DOM Manipulation

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INFT 2202 - Assignment 1

Assignment Objective: Dynamic Volunteer Management Web Portal

This assignment is designed to provide hands-on experience with JavaScript, focusing on **DOM manipulation**, **event handling**, and **dynamic content creation**. Students will build a web application for a fictional volunteer organization called **"Volunteer Connect"**.

Theme Description:

Volunteer Connect is an organization dedicated to connecting individuals with volunteering opportunities in their community. Your web application will serve as an interactive portal to display opportunities, register volunteers, and showcase upcoming events. It should embody the spirit of collaboration, engagement, and service.

Application Goals:

1. Develop a **dynamic and interactive web application** using JavaScript.
2. Leverage **DOM manipulation** and **event handling** to enhance user experience.
3. Demonstrate **real-time interactivity** through features like volunteer sign-ups and event registrations.
4. Prepare a foundation for future assignments that build on this project.

As you develop this web application, consider how it can be structured to accommodate future expansions. These may be enhancement that are asked of you in future assignment in this course. This project not only tests your technical skills but also challenges your creativity in designing a web interface that is both inviting and functional for a diverse group of users.

Your website should embody the essence of the portal: a welcoming, engaging, and resourceful online space that mirrors the vibrancy and diversity of the community it serves. Use this opportunity to experiment with different layouts, interactive elements, and content that bring the portal to life in the digital realm.

By the end of this course, you should be able to present a comprehensive web application that not only demonstrates your technical proficiency in client-side scripting but also your ability to conceptualize and execute a thematic project that could be realistically implemented in a community setting.

This assignment, therefore, is not just about coding; it's about crafting a digital experience that resonates with the users and serves a meaningful purpose. Let your imagination and technical skills come together to create something unique for the **Volunteer Connect**.

Assignment Instructions

Project Setup

1. **Folder Structure:** Set up your folder structure as demonstrated in class, ensuring clean separation of HTML, CSS, and JavaScript files.

2. **Basic HTML Page:** Create a basic (index.html) HTML page. The page must link to your **style.css** and **main.js** files stored in designated folders. Include libraries like jQuery, Bootstrap, and a new library of your choice using the **yarn** package manager. The index.html file should be placed in the root directory of your project folder. Inside your index.html, link the style.css and main.js files. These files are typically stored in folders named css and js, respectively as demonstrated in class.

3. **Bootstrap Navigation Bar:** Include a navigation bar with the following links: **Home**, **Opportunities**, **Events**, **Contact Us**, and **About**.

   Additionally:

   - The navbar should include a dropdown menu labeled **More**, with links to:
     - **Privacy Policy**
     - **Terms of Service**
   - Ensure the navigation bar is **responsive** using Bootstrap's utilities (e.g., collapsible menu for smaller screens).
   - Dynamically highlight the **current page** using JavaScript to indicate the active link.

Project Content

Develop the following pages with specified functionality:

   i. **Home Page**:
      a. A welcoming message.
      b. A carousel/slideshow featuring images of past volunteer activities.
      c. A "Get Involved" button that dynamically redirects users to the "Opportunities" page.
   ii. **Opportunities Page**:
      a. Display a **list of volunteer opportunities** dynamically generated from a JavaScript array.
      b. Each opportunity card should include:
         i. Title.
         ii. Description.
         iii. Date and time.
         iv. A "Sign Up" button that triggers a modal form to collect user details (name, email, preferred role).
      c. Upon submission, validate form fields and display a confirmation message within the modal.
   iii. **Events Page**:
      a. A calendar-style layout showcasing upcoming events.
      b. Include a feature to filter events by category (e.g., Fundraisers, Workshops, Cleanups).
   iv. **Contact Us Page**:
      a. A form for general inquiries, including:
         i. Name, email, subject, and message fields.
         ii. Input validation and a confirmation modal upon submission.
      b. Use **JavaScript timing functions** to display a "Thank You" message for 5 seconds before redirecting users to the Home Page.

Interactive Feature and DOM Manipulation

1. **Dynamic Navbar**:
   - Programmatically add a "Donate" link to the navbar.
   - Change the "Opportunities" link text to "Volunteer Now."
2. **Footer Navigation Bar**:
   - Using JavaScript, create a sticky footer with links to "Privacy Policy" and "Terms of Service" pages.
3. **Event Handlers**:
   - Ensure all buttons (e.g., "Sign Up," "Submit") have appropriate event handlers.
   - Use .preventDefault() where needed to manage form submissions.
4. **Additional DOM Manipulation**:
   - Dynamically highlight the active page in the navbar.
   - Include a "Back to Top" button that appears when the user scrolls down and smoothly scrolls to the top when clicked.

Internal Documentation

- **Header Comments:** Include a comment header in your main.js file with your name, student ID, and date of completion.

- **Function Documentation:** Document all functions with clear descriptions, parameter details, and return values.

- **Readable Code:** Use meaningful variable and function names and include inline comments where necessary to clarify your code.

- **Responsive Design:** Ensure your web application is responsive and looks good on both desktop and mobile devices.

GitHub Share

a. Share your repository with your professor (collaborator) on GitHub. Create an appropriately named **private** repository that you and your partner(s) will use for this assignment. Only 1 repository is required per submission.
b. Your repository must include your well-structured code.

Host your site

    a.   Host your site live on a Cloud Provider of your Choice (GitHub pages recommended)
    b.   Your site's images should be visible on your Live site
    c.   Your CSS Layout should function appropriately on your Live Site
    d.   Your Script files should function appropriately on your Live Site

Video Presentation

    a.   Create a Short Video presentation. Your presentation should start with an introduction, where it must include a PowerPoint or Google slide that includes 1 single slide to, that introduces each member of your group, to start your video.

    b.   The first (and only) slide of your presentation must include current images of you and your partner(s) (no avatars allowed) that are displayed appropriately on the page. You must also include your Full Names, Student IDs, the Course Code, Course Name, and your Assignment information.

    c.   You or your partner(s) will demonstrate your program's functionality. You must show your site working properly on your live site. You will also use your assignment status report as a checklist during your Video Presentation

    d.   You or your partner(s) will each share in describing the code in your files that drives the functionality of your program – you will want to do this part well and be clear.

    e.   Sound for your video must at an appropriate level so that your voices may be clearly heard, and your screen resolution should be set so that your program's code and console details are clearly visible

    f.   Your Short Video should run no more than ~5 minutes

    g.   Video demonstration are compulsory, resulting in a **grade of zero** (0%) if not provided.

Submission

1. A video demonstration recording provided or uploaded to DCConnect
2. A working link to your completed project files on GitHub
3. A working link to your Live Site hosted on a Cloud Provider of your Choice (GitHub pages recommended)
4. Your completed Assignment Status Report
5. Late submissions are deducted -25% per day (max 3 days)