**Scenario: Share Market Website**

**Mini Project Overview**

Create a share market website that provides two interfaces: one for administrators to enter company information and another for users to purchase or sell shares. The Mini Project will require implementing features using HTML, CSS, and JavaScript, focusing on DOM manipulation, literal objects, and closures. This Mini Project should be completed within 7-8 hours.

**Objectives**

1. **HTML**: Structure the website with semantic HTML elements.
2. **CSS**: Style the website to make it visually appealing and user-friendly.
3. **JavaScript**:
   * Use literal objects to manage data.
   * Manipulate the DOM to create dynamic interfaces.
   * Use closures to encapsulate and protect data.

**Requirements**

**Interface 1: Admin Panel for Entering Company Information**

1. **HTML**:
   * Create a form to enter company details:
     + Company Name
     + Stock Symbol
     + Current Stock Price
     + Total Shares Available
   * Include a button to add the company to the system.
2. **CSS**:
   * Style the form to make it clean and easy to use.
   * Highlight required fields and provide error messages for invalid inputs.
3. **JavaScript**:
   * Create a literal object for each company to store its information. // push
   * Use closures to protect and encapsulate the company data.
   * Display the list of companies dynamically on the same page. // display
   * Allow administrators to update company information. // edit

**Interface 2: User Panel for Purchasing/Selling Shares**

1. **HTML**:
   * Create a section displaying all available companies with their stock prices and available shares.
   * Include forms for users to purchase or sell shares:
     + Select Company (Dropdown)
     + Number of Shares
     + Purchase/Sell Button
2. **CSS**:
   * Style the company list to display information clearly.
   * Design the purchase/sell forms to be user-friendly.
   * Use colors to indicate stock trends (e.g., green for up, red for down).
3. **JavaScript**:
   * Use literal objects to manage user transactions.
   * Implement closures to handle transaction logic securely.
   * Update the company's available shares and user's transaction history dynamically.
   * Validate user input (e.g., ensure enough shares are available for purchase).
   * Display transaction history and current portfolio dynamically.

**Steps to Complete the Mini Project**

1. **Setup the Mini Project**:
   * Create the Mini Project folder structure with separate directories for HTML, CSS, and JavaScript files.
   * Create basic HTML templates for both interfaces.
2. **Develop the Admin Panel**:
   * Implement the HTML form for entering company information.
   * Style the form using CSS.
   * Write JavaScript to handle form submissions, create company objects, and update the DOM.
3. **Develop the User Panel**:
   * Implement the HTML structure to display companies and user forms for transactions.
   * Style the user interface with CSS.
   * Write JavaScript to manage user transactions, update company data, and manipulate the DOM.
4. **Testing and Debugging**:
   * Test all functionalities to ensure data is being stored, updated, and displayed correctly.
   * Validate all forms and handle edge cases (e.g., insufficient shares, invalid inputs).
5. **Final Touches**:
   * Ensure the website is responsive and works well on different devices.
   * Add additional styling to improve the user experience.
   * Comment your code and ensure it is well-organized and readable.

**Expected Outcome**

By the end of this Mini Project, students should be able to demonstrate their ability to:

* Use HTML to create structured and semantic web pages.
* Apply CSS to enhance the visual appeal and usability of the website.
* Utilize JavaScript to manage data, handle user interactions, and dynamically update the DOM.
* Implement closures to encapsulate and protect data.
* Develop a functional and interactive share market website with separate interfaces for administrators and users.

