

Step 1: Setting Up the Basic Structure

- **Goal:** Create the HTML structure for the Address Book.
 - **Tasks:**
 - Add a form with input fields for name, email, and phone, along with a submit button.
 - Add a search input field for filtering contacts.
 - Create a container (`div`) to display the contact list.
 - **Practice:**
 - Write basic HTML with IDs: `contactForm`, `contactName`, `contactEmail`, `contactPhone`, `contactSubmitButton`, `contactList`, and `searchInput`.
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Step 2: Initialize the Application

- **Goal:** Set up the `addressBook` object and its initial properties.
 - **Tasks:**
 - Define the `contacts` array to store contact details.
 - Add flags `isEditing` and `editingEmail` to handle editing states.
 - Implement a `renderContacts` method to display an empty message initially.
 - **Practice:**
 - Test rendering the empty state.
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Step 3: Adding a Contact

- **Goal:** Implement functionality to add a contact.
 - **Tasks:**
 - Write the `addContact` method to add a new contact.
 - Ensure contacts are stored in the `contacts` array.
 - Re-render the contact list after adding a contact.
 - **Practice:**
 - Test adding multiple contacts and check the list updates dynamically.
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Step 4: Displaying Contacts

- **Goal:** Render the contact list dynamically in the DOM.
- **Tasks:**
 - Update the `renderContacts` method to display name, email, and phone for each contact.

- Include buttons for editing and deleting contacts.
 - **Practice:**
 - Style the contact list for better appearance using CSS.
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Step 5: Editing a Contact

- **Goal:** Implement functionality to edit contact details.
 - **Tasks:**
 - Write the `editContact` method to populate the form with the contact's current details.
 - Disable the email input to prevent changes to the email address.
 - Update the form's submit button text to "Update Contact."
 - **Practice:**
 - Test editing different contacts and ensure the form updates accordingly.
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Step 6: Updating a Contact

- **Goal:** Update an existing contact's details.
 - **Tasks:**
 - Write the `updateContact` method to modify the contact's name and phone in the `contacts` array.
 - Re-render the contact list after the update.
 - Reset the form after updating the contact.
 - **Practice:**
 - Test updating various contacts and verify the changes reflect correctly.
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Step 7: Deleting a Contact

- **Goal:** Implement functionality to delete a contact.
 - **Tasks:**
 - Write the `deleteContact` method to remove the contact from the `contacts` array.
 - Re-render the contact list after deletion.
 - **Practice:**
 - Test deleting contacts and ensure the list updates dynamically.
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Step 8: Searching Contacts

- **Goal:** Allow users to search for contacts by name or email.
 - **Tasks:**
 - Write the `searchContacts` method to filter contacts based on the query.
 - Update the displayed contacts dynamically as the user types in the search input.
 - **Practice:**
 - Test searching for contacts using partial and full matches.
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Step 9: Sorting Contacts

- **Goal:** Sort the contact list alphabetically by name.
 - **Tasks:**
 - Write the `sortContacts` method to sort the `contacts` array.
 - Re-render the contact list after sorting.
 - **Practice:**
 - Test sorting contacts after adding multiple entries.
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Step 10: Resetting the Form

- **Goal:** Clear the form after adding or updating a contact.
 - **Tasks:**
 - Write the `resetForm` method to reset all input fields and editing states.
 - Re-enable the email input field for new contacts.
 - **Practice:**
 - Test adding and editing contacts to ensure the form resets properly.
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Step 11: Polishing the UI

- **Goal:** Improve the user interface.
 - **Tasks:**
 - Style the contact list, buttons, and form for a professional appearance.
 - Add hover effects for buttons.
 - Use responsive design techniques to ensure usability on mobile and desktop devices.
 - **Practice:**
 - Test the application on different devices and screen sizes.
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Bonus Steps

1. Add Local Storage:

- Save contacts to `localStorage` to persist data between sessions.
- Load contacts from `localStorage` on page load.

2. Export Contacts:

- Add functionality to export the contact list as a CSV or JSON file.

3. Dark Mode:

- Add a toggle for light and dark themes.

4. Pagination:

- If the contact list grows, implement pagination to display contacts in chunks.

Practicing Each Step Focus on implementing and testing each step independently. After completing all steps, integrate the functionality into a fully functional Address Book Application.