Portfolio Project: Week 2 Instructions

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1. How will your project benefit from React?

What are the main differences between vanilla JavaScript and React?

- o The main differences between vanilla JavaScript and React are that vanilla JavaScript is imperative, which makes it very susceptible to side effects leading to bugs and difficult to debug. It also affects performance since it renders the whole application when there are any changes, while React is declarative and efficient in terms of code. It only renders specific components of the application, preventing side effects and unnecessary rendering of data, and requesting data from the server.

What will React allow you to do that would have been difficult with vanilla JavaScript?

- o In vanilla JavaScript, using variables inside HTML elements or incorporating conditional statements directly within HTML isn't directly supported. However, React enables this functionality, saving time and reducing confusion. Additionally, React significantly enhances application speed by employing a declarative approach, in contrast to vanilla JavaScript, which renders the entire app upon each update. If you are evolving an existing JavaScript project, how will it change with React?

2. What will the MVP of your project look like?

What are the core features that your project must have to be useful to someone?

- One core features of my book store application project is that it focuses CRUD like operations:
  - **Shopping Cart Functionality**
    - Create: Users add books to their shopping carts.
    - Read:
      - Display the contents of the user's shopping cart, including book details and total price.
      - Show a summary of items in the cart during the checkout process.
    - Update:
      - Enable users to update the quantity of items in the cart or remove items altogether.
      - Dynamically update the cart contents without refreshing the page when changes are made.
    - Delete:
      - Allow users to remove items from their shopping carts with a single click.
      - Provide an option to clear the entire shopping cart at once.
  - **Reviews and Ratings**
    - Create: Users create new reviews and ratings for books they have purchased or read.
    - Read: Users view reviews and ratings for books.
    - Update: Users can edit or update their own reviews and ratings.
    - Delete: Users can delete their own reviews and ratings.
  - **Wishlist and Favorites**

- Create: Users add books to their wishlist or mark them as favorites.
- Read: Users view their wishlist or favorite books list.
- Update: Users can remove items from their wishlist or favorites list.
- Delete: Users can clear their entire wishlist or remove individual items.

- **Search and Filter Options**
  - Create: When a user performs a search, no new data is created, but the search query triggers a retrieval of existing book data from the database.
  - Read: Allow users to search for books by title, author, genre, or apply filters to narrow down search results.
  - Update: Users may refine their search criteria, which can be seen as an update operation on the search parameters.
  - Delete: Deleting search results doesn't apply, but users may clear the search query or reset filters, which can be seen as a form of deletion of the search context.

- **User Account Management**
  - Create:
    - Registration Form: Provide a registration form where users can sign up for a new account by providing necessary information such as name, email, and password.
    - Validation: Validate user input to ensure data integrity and prevent errors during registration.
    - Confirmation Email: Send a confirmation email to the user's provided email address to verify the account creation.
- Read:
  - User Profile: Allow users to view their profile information, including name, email, and other details.

- Order History: Display a list of past orders associated with the user's account.
- Update:
  - Profile Settings: Provide functionality for users to update their profile information, change passwords, or update preferences.
  - Edit Forms: Pre-populate forms with current user data, allowing users to make modifications.
  - Password Reset: Implement a password reset mechanism where users can request to reset their password if forgotten.
- Delete:
  - Account Deletion: Allow users to delete their accounts if they wish to do so.
  - Confirmation: Implement confirmation dialogs to confirm account deletion and inform users about the consequences.
  - Data Cleanup: Upon account deletion, remove associated data such as order history and personal information from the database.
- What are some extra features you might add later if you have time?
  - I don't have any ideas right now, since this will be a big project.

3. Expected List of React Components in the MVP

A brief list of the custom React Components you will need to develop for your application.

Brief justifications for including these components

- ✓ **BookList**: Display a paginated list of books available in the inventory. Handle search and filter functionality to narrow down book results.
- ✓ **BookDetails**: Show detailed information about a selected book, including title, author, genre, ISBN, price, description, and cover image. Include options for users to add the book to their shopping cart or wishlist.

- ✓ **ShoppingCart**: Display the items currently in the user's shopping cart. Allow users to adjust the quantity of items or remove items from the cart. Calculate and display the total price of items in the cart, including any applicable taxes or shipping fees.
- ✓ **UserProfile**: Allow users to view their profile information, including name, email, and other details. Provide functionality for users to update their profile information, change passwords, or update preferences.
- ✓ **OrderHistory**: Display a list of past orders associated with the user's account. Include details such as order ID, date, status, and total price.
- ✓ **ReviewForm**: Provide a form for users to submit reviews and ratings for books they have purchased or read. Include fields for the user to enter their review text and select a rating.
- ✓ **SearchBar and Filter**: Implement a search bar component for users to search for books by title, author, genre, or keyword.
- ✓ **LoginForm and RegistrationForm**: Provide forms for users to log in to their accounts or register for a new account. Include fields for email and password for login, and additional fields for name and other details for registration.
- ✓ **ConfirmationModal**: Implement a modal component for displaying confirmation dialogs for actions such as deleting an account or clearing the shopping cart. Include options for users to confirm or cancel the action.
- ✓ **ErrorBoundary**: Create an error boundary component to catch and handle errors that occur within the application, providing a fallback UI to prevent crashes.

4. What is your production roadmap?

What are the main things that you plan to complete each week to finish your project on time?

Since the portfolio project time would be just 1 week, I plan to work on each feature I mentioned above. And If I have ample time then I will add design to my project, what's important is that the functionality works.

What are the potential "roadblocks" that you anticipate in the next few weeks, and how do you plan to deal with them?

One of the potential roadblocks would be my beginner skills of react, since I am still new to this framework I am planning to solidify my skills through this project and give my all to meet all the requirements of the app.

If you are working on this as a group project, how are you dividing the workload? Who is responsible for what?

I am planning to work solo for the project.