

## Home Task: Product Catalog & Reviews Application

### Overview

Develop a mini product catalog where users can browse products and add reviews. The primary focus is on building a robust, visually appealing, and well-tested frontend. Use a database to store products and reviews, and expose a backend API to interact with the data.

### Requirements

#### Project Setup

- Set up a modern frontend application using Next.js and React.
- Use a styling approach that ensures maintainability and scalability.
- Document and test your UI components using a component-driven development approach.

#### Frontend Functionality (≈70% Focus)

- Homepage: Display a list of products with essential details.
- Product Detail Page: Show detailed product info and existing reviews. Allow users to submit new reviews.
- Component Design: Break the UI into reusable components (e.g., ProductCard, ProductList, ReviewForm).
- State Management & API Calls: Fetch product and review data from the backend using an appropriate client.

#### Backend Functionality (≈30% Focus)

- Implement an API to handle:
  - Retrieving product and review data.
  - Submitting new reviews.
- Store the data in a database and structure it efficiently.

#### General Best Practices

- Code Quality: Clean, modular, and maintainable code.
- Error Handling: Handle errors gracefully on both client and server.

- **Responsive UI:** Ensure a smooth experience across different screen sizes.
- **Documentation:** Provide clear setup and running instructions.

#### **Bonus Points**

- **Writing tests** for key functionalities (unit, integration, or e2e).
- **Deploying** the application and providing a live demo.

#### **Deliverables**

- **Share a Git repository** link containing the source code.
- **Include a README** with setup instructions and any additional notes.