

E-Commerce Web App — AI-Assisted Development (Report-6)

Tools Used

ChatGPT – Helped design and build the Home page layout and responsive Header using Material-UI. Generated code for the search bar, icons, and Drawer menu for mobile view. Assisted with CSS for gradient backgrounds and animated buttons.

Claude AI – Gave small suggestions to improve color contrast, spacing, and text readability for better UI balance.

GitHub Copilot – Auto-completed JSX elements and import statements for React components, helping speed up coding.

Project Overview

This week focused on **frontend development**, mainly the **Home page** and **Header** section of the e-commerce app.

Key work done:

- Created a **responsive Header** using Material-UI with a logo, links, search bar, and icons for cart and profile.
- Designed a new **Home page** with a gradient banner, welcome text, and a “Let’s Simp” animated button.
- Added a **featured products section** showing sample product cards.
- Set up a simple **Redux store** structure for future state management.
- Used **MetaData component** to manage page titles dynamically.

AI Interaction & Work Done

- ChatGPT guided the structure of the Header and handled responsiveness using Material-UI’s Drawer for mobile screens.

- Helped fix color and hover issues in the navigation bar and search bar.
- Suggested CSS animations for the button and banner background.
- Assisted in building `Product.js` for reusable product cards with image, name, price, and star rating.
- Helped create `MetaData.js` using `react-helmet` for better SEO.

Claude's Input

Claude gave small design tips, like keeping text contrast high on colored backgrounds and maintaining consistent padding across elements.

Copilot's Role

Copilot auto-filled repetitive JSX in the Home and Product components, import paths, and some CSS class names, saving time during layout building.

My Implementation

- Built the full **Home page layout** with banner, image, and button.
- Integrated the **Header** with links and icons.
- Added CSS animations and gradient effects for a modern look.
- Tested routing and ensured the layout worked on both desktop and mobile.
- Prepared Redux setup for later integration with backend APIs.

Component Working

- **Header** – Top navigation bar with logo, links, and icons (responsive).

- **Home Page** – Gradient banner with floating image, welcome text, and “Featured Products” section.
- **Product Card** – Displays product image, name, price, and rating.
- **MetaData** – Sets page title dynamically.

Advantages

- Responsive and clean frontend design.
- Consistent color theme and typography.
- Modular components for easy reuse.
- AI assistance reduced development time and debugging effort.

Limitations

- Product data still static.
- Cart and profile features not connected yet.
- Needs minor UI polish for mobile screens.

Reflection

This week’s focus was on creating a polished and responsive Home page using React and Material-UI.

AI tools made it easier to design, debug, and organize the frontend faster. Next week’s goal is to **connect frontend components with backend APIs** and make the products dynamic.



