

# Project Plan

## Team Roles & Responsibilities

Our development process is structured around clear feature ownership to ensure accountability and parallel progress. The two members of our team—**Asray Gopa** and **Emre Okur**—are each responsible for end-to-end development of specific features, covering both frontend and backend.

Feature	Assignee	Tech Stack
User Authentication	Emre Okur	React (Frontend) + Node.js (Backend)
Confirmation Page	Asray Gopa	React + Node.js + MongoDB
Home/Landing Page	Emre Okur	React + Node.js + MongoDB
About Page	Asray Gopa	React + Node.js + MongoDB
Product Listings & Details	Emre Okur	React + Node.js + MongoDB
Purchase Confirmation Page	Asray Gopa	React + Node.js + MongoDB
Cart Page	Emre Okur	React + Node.js + MongoDB
Order Management Page(s)	Asray Gopa	React + Node.js + MongoDB
Not Found Page	Emre Okur	React + Node.js + MongoDB

## Tech Stack

- **Frontend:** React, React Router, Axios
- **Backend:** Node.js with Express, MongoDB with Mongoose
- **Authentication:** JWT for token management, Bcrypt for secure password hashing
- **Tools:** GitLab for version control, Figma for UI/UX design, Postman for API testing

## Key Features

- **User Authentication:** Secure login and registration using hashed passwords and token-based sessions.
- **Product Management:** Dynamic listings with filtering capabilities and detail pages for each item.
- **Shopping Cart:** Persistent cart functionality with add/remove support and a simulated checkout process.
- **Product Reviews:** Authenticated users can post, update, or delete their reviews with ratings.
- **Order Management:** Admin-level interface for managing and updating the status of user orders.
- **Responsive UI:** Designed to be fully functional across desktop and mobile devices.

## Expected Challenges

- **Backend-Frontend Sync:** Ensuring smooth integration of API endpoints with frontend logic and maintaining consistent data flow.
- **Authentication Flow:** Correctly managing sessions, token expiration, and route protection can be complex to debug and test.
- **Database Schema Design:** Structuring the MongoDB collections to allow scalable, normalized storage of users, products, reviews, and orders.
- **Responsiveness:** Making sure the layout adapts cleanly across screen sizes, especially for data-heavy pages like cart and product detail.
- **Deployment (if applicable):** If deploying the project, issues with CORS, environment variable management, and database hosting may arise.