E-Commerce website to publish video games, with Backend, Database and Frondend

Description

I am developing a full-stack E-Commerce website similar to Itch.io, Steam or Epic Games. Users will be able to register/login, browse video game pages, rate games, review games and simulate game purchases (no real transactions).

I will handle both the backend and frontend development and the project is from scratch.

Tech Stack:

- **Frontend:** React.js, Tailwind CSS
- **Backend:** Node.js, Express.js, MongoDB, Stripe

Core Features:

- API route handling, CRUD operation
- User registration/login with authentication
- Secure shopping cart functionality
- Coupon code system
- Payment simulation using Stripe
- Sorting, pagination, and filtering of products
- Admin dashboard with product management
- Caching and optimization

Challenges & Solutions

1. Learning New Technologies

- Solution: Research, Google, and YouTube tutorials.

2. Scope Management (Over/Under Scoping)

- Solution: Revise and refine the project scope as needed.

3. Feature Expansion

- If time allows, I may integrate my personal video game project into this platform or add a comment section for users to review video games(Nice to have).

Milestone Plan (Week by Week)

Week 1: Project Setup & Database

- Set up project structure (backend & frontend)
- Design and implement database schema (MongoDB)
- Create models for users and products
- Implement basic CRUD operations

Week 2: User Authentication

- Implement user registration and login system
- Secure authentication with JWT
- Role-based access control (Admin & Customer)

Week 3: Shopping Cart & Payment System

- Implement shopping cart functionality
- Integrate coupon system
- Set up Stripe payment processing (simulation)

Week 4: Admin Dashboard & Analytics

- Implement admin panel to manage products, users, and orders
- Display sales analytics (total sales, products sold, revenue)

Week 5: UI Development - Homepage & Admin Dashboard

- Set up React.js with Tailwind CSS
- Design and build the homepage UI
- Build the admin dashboard UI

Week 6: UI Development - Product Pages

- Implement product listing pages
- Add sorting, pagination, and filtering

Week 7: UI Development - Payment & Checkout

- Create checkout page
- Implement order summary and confirmation page

Week 8: Optimization & Finalization

- Integrate all features smoothly
- Performance optimization
- Fix bugs and polish UI/UX

Extra Time: Bug fix, research, write report and additional improvements

Potential Enhancements (If Time Allows)

Search Functionality: Allow users to search for games
User Reviews & Ratings: Add engagement
Light/Dark Mode: Improve user experience

References:

- [Steam](#)
- [itch.io](#)
- [Epic Games](#)