

RentBox - Rental E-Commerce Platform

Project Overview

RentBox is a rental-based e-commerce platform. Users can rent products (books, tools, gadgets) for 3, 7, or 30 days. Logged-in users can add/edit/delete their own products, rent other items, leave reviews with star ratings and comments. It includes real booking logic, review system, and dynamic user-driven content.

Tech Stack

Frontend:

- React.js
- Tailwind CSS
- Axios
- React Router
- react-datepicker
- react-stars

Backend:

- Node.js + Express.js
- MongoDB + Mongoose
- JWT + bcrypt
- Multer (image upload)
- date-fns (date logic)

Optional:

- Razorpay
- Cloudinary
- PDFKit

Features

- User Signup/Login (JWT auth)
- Add/Edit/Delete own product listings
- Upload product image (Multer)
- Date-based rental booking with price auto-calc

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- Prevent booking overlap via date range logic
- View personal listings & rental history
- Review system (rating + comment)
- Calculate and display average rating
- Filter by category/date/rating

Project Folder Structure

RentBox/

client/ (React)

components/

pages/

context/

server/ (Node.js)

models/

routes/

controllers/

middleware/

uploads/

Backend Logic Summary

- Auth: JWT with middleware for protected routes
- Add Product: Owner linked to logged-in user ID
- Edit/Delete: Only allowed if user owns the item
- Rent: Check availability dates, block overlapping
- Review: One per user per product (editable), avg rating update
- My Listings: Show products created by user
- My Rentals: Show products user has rented

Timeline - 14 Days Plan

Day 1: Setup React + Express + MongoDB

Day 2: Auth system (Register/Login)

Day 3-4: Product CRUD with image upload

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Day 5: My Listings page

Day 6-7: Rent logic with booking overlap checks

Day 8: Price calc from date

Day 9: Review system

Day 10: Avg rating logic

Day 11: Filters (category/date)

Day 12: UI polish + responsive design

Day 13: Deploy backend (Render)

Day 14: Deploy frontend (Vercel)

Bonus Features (Optional)

- PDF receipt (PDFKit)
- Razorpay payment
- Email return reminders
- Image hosting with Cloudinary
- Chat system with Socket.io
- Admin dashboard