

Final Project Proposal: Overclocked

1. Project Description

Overclocked is a next-generation e-commerce platform for electronics and smart devices. Built to deliver speed, trust, and innovation, it connects customers with the latest tech and vendors with powerful tools. More than a store, it's a digital hub redefining how electronics are bought and sold.

2. Group Members

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3. Team Leader

Ahmed elshafei

4. Objectives

objective: To build a scalable and innovative e-commerce platform dedicated to electronics, offering customers a seamless shopping experience and vendors powerful tools to grow their business, while establishing Overclocked as a trusted digital hub for technology enthusiasts.

5. Tools & Technologies

Frontend: React, JavaScript , Tailwind, material tailwind

Back-end: node js , express js

Database: mongodb

Authenticion: JWT

Deployment: Vercel

UI design ref : figma community

6. Milestones & Deadlines

Planning & Research (Week 1)

Tasks:

Define project scope, goals, and target audience.

Research existing e-commerce platforms for inspiration and benchmarking.

Finalize technology stack (MongoDB, Express.js, React, Node.js).

Create wireframes and initial UI mockups.

Environment Setup & Database Design (Week 2)

Tasks:

Set up Git repository and development environment.

Design MongoDB database schema (users, products, orders, etc.).

Implement basic server setup with Express.js and MongoDB connection.

Authentication & User Management (Week 3)

Tasks:

Implement user registration, login, and JWT authentication.

Add roles (admin, vendor, customer).

Develop user profile management.

Product Management System (Week 4–5)

Tasks:

Create CRUD operations for products (add, edit, delete, view).

Enable vendors to manage their own products.

Implement categories, filters, and search functionality.

7. KPIs (Key Performance Indicators)

Infrastructure & Automation: Implemented CI/CD pipeline for smooth and automated deployment.

Performance Optimization: Reduced API response time and improved database query speed.

Security & Authentication: Protected user data with secure login and role-based access control.

Testing & Reliability: Conducted unit and integration testing to ensure system stability.

Deployment & Cloud Management: Deployed on Microsoft Azure with uptime and performance monitoring.

Conclusion

Overclocked represents a new step forward in modern e-commerce for electronics and smart devices. By combining speed, scalability, and innovation through the MERN stack, it delivers a seamless shopping experience for customers and powerful management tools for vendors. With its secure infrastructure, optimized performance, and reliable deployment on Microsoft Azure, Overclocked stands as a trusted and future-ready digital hub for technology enthusiasts.