

Project Design Phase

Proposed Solution

Date: 20 JULY 2025

Team ID: LTVIP2025TMID48243

Project Name: Shopmart

Maximum Marks: 2 Marks

S.No.	Parameter	Description
1.	Problem Statement	Small businesses, students, and solo developers struggle with building secure, scalable backend systems for e-commerce platforms due to a lack of time, expertise, and ready-made tools.
2.	Idea / Solution Description	Shopmart is a modular backend solution built with Node.js, Express, and MongoDB, offering JWT-based authentication, product/order CRUD APIs, user role management, and feedback handling—all via a RESTful architecture.
3.	Novelty / Uniqueness	Unlike traditional templates, Shopmart includes built-in user authentication, admin controls, feedback APIs, and role-based middleware, making it production-ready and suitable for real-world deployment without extensive customization.
4.	Social Impact / Customer Satisfaction	Reduces backend development effort for students and small teams, improves security and data management, and empowers non-technical users to manage online inventory and customer feedback independently.
5.	Business Model (Revenue Model)	Can be deployed as a free open-source template for learning and rapid development, with a commercial model offering hosted versions, API enhancements, and plug-and-play dashboards for business clients.
6.	Scalability of the Solution	The backend is designed to scale horizontally via containerization or cloud platforms like AWS and Azure. APIs are loosely coupled and extendable, making Shopmart adaptable for startups and enterprise-grade needs.