

Project Design Phase

Solution Architecture

Date	24 June 2025
Team ID	LTVIP2025TMID24654
Project Name	Shopez : one-stop shop for online purchases
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Maximum Marks	4 Marks

Solution Architecture

Solution architecture for Shoppez bridges the gap between business needs (a seamless, secure, and scalable e-commerce experience) and technology solutions (MERN stack, REST APIs, cloud storage, etc.). The goals of Shoppez's solution architecture are to:

- **Find the best tech solution to solve existing business problems:**

Shopez leverages the MERN stack (MongoDB, Express.js, React, Node.js) to deliver a robust, scalable, and maintainable e-commerce platform.

- **Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders:**

The architecture clearly defines how the frontend, backend, database, and supporting services interact, ensuring all stakeholders understand the system's flow and responsibilities.

- **Define features, development phases, and solution requirements:**

Features such as user authentication, product management, order processing, and admin dashboards are mapped to specific components and services, with clear development phases for incremental delivery.

- **Provide specifications according to which the solution is defined, managed, and delivered:**

The architecture includes API specifications, data flow diagrams, and deployment strategies to ensure the solution is delivered as intended and can be efficiently managed and scaled.

Example - Solution Architecture Diagram:

