

Project Design Phase

Solution Architecture

Date	20 February 2026
Team ID	LTVIP2026TMIDS80887
Project Name	FreelanceFinder: Discovering Opportunities, Unlocking Potential
Maximum Marks	4 Marks

Solution Architecture:

The solution architecture follows a layered full-stack design to ensure scalability, security, and maintainability of the Freelance Management System. It is structured into three main layers: Presentation Layer, Application Layer, and Data Layer.

The Presentation Layer (Frontend) is developed using React and follows a Single Page Application architecture. It provides separate dashboards for Clients, Freelancers, and Admin, enabling dynamic content rendering and smooth navigation. This layer handles user interactions, form validations, state management, and secure communication with backend APIs.

The Application Layer (Backend) is built using Node.js and Express.js. It manages business logic, authentication using JWT, role-based authorization, project workflows, and RESTful API endpoints. Middleware ensures request validation, error handling, and secure access control.

The Data Layer (Database) uses MongoDB to store users, projects, bids, payments, and reviews. Proper indexing, schema validation, and secure storage mechanisms ensure data integrity, consistency, and efficient retrieval across the system.

Secure JWT-based authentication ensures protected access, while modular architecture enables scalability, maintainability, and future enhancements.

Solution Architecture Diagram:

