Project Design Phase
Solution Architecture

Date	26 -05-2025
Team ID	SWUID20240000985
Project Name	Freelancing (SB Works)
Maximum Marks	4 Marks

Solution Architecture:

The architecture for **Freelancing (SB Works)** is designed to support a secure, responsive, and scalable freelancing platform. It connects clients and freelancers through intuitive dashboards, real-time chat, and a modular service-based backend using the **MERN stack**.

Key Architectural Features:

- **Secure User Authentication:** Signup/login for freelancers, clients, and admin using JWT and bcrypt.
- **Project Posting & Browsing:** Clients can post jobs; freelancers can browse and apply.
- **Real-Time Chat:** Implemented via **Socket.io** for direct messaging.
- **Modular Architecture:** Split across React (frontend), Node.js (API server), MongoDB (database).
- **Responsive UI:** Designed with React and CSS libraries (like Bootstrap/Material UI).
- **Role-based Access Control:** Separate access for freelancers, clients, and admin.

Solution Architecture Diagram:

Solution Architecture

Frontend (React)
- User Interface
- Role-based Views
- Axios API Calls

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Backend (Node.js + Express)
- REST APIs
- Business Logic (Project, Chat)
- Socket.io (Real-Time Messaging

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MongoDB (Database)
- Users
- Projects
- Messages