**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| --- | --- |
| Date | 26.06.2025 |
| Team ID | SWUID20250170870 |
| Project Name | Freelancing Application Mern |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

The SB Works platform uses a scalable client-server architecture built with the MERN stack (MongoDB, Express.js, React.js, Node.js). The system has three main layers:

* Frontend: A responsive React.js interface where users can register, post projects, bid, chat, and manage their profiles in real time.
* Backend: A Node.js and Express.js server that handles application logic, user authentication with JWT, role-based access, and secure API communication.
* Database: MongoDB stores all user data, projects, bids, messages, and transactions securely and flexibly**.**

**Table-1 : Components & Technologies:**

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| --- | --- | --- | --- |
| S.No | Component | Description | Technology |
| 1 | User Interface | Interactive web interface for clients, freelancers, and admins | HTML, CSS, JavaScript / React JS etc. |
| 2 | Application Logic-1 | Project bidding, submission, and collaboration features. | Node.js, Express.js |
| 3 | Application Logic-2 | Admin dashboard, project monitoring, and user notifications | Node.js, React.js |
| 4 | Database | Stores user profiles, projects, applications and chat history | MongoDB Atlas |
|  |  |  |  |

**Table-2: Application Characteristics:**

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| --- | --- | --- | --- |
| S.No | Characteristics | Description | Technology |
| 1 | Open-Source Frameworks | Based on MERN stack | React.js, Node.js |
| 2 | Scalable Architecture | 3Client-server model with RESTful APIs | Microservices-friendly |
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**References:**

* [**React.js Official Documentation**](https://react.dev)
* [**Node.js Best Practices**](https://github.com/goldbergyoni/nodebestpractices)
* [**Express.js Documentation**](https://expressjs.com)
* [**MongoDB Documentation**](https://www.mongodb.com/docs/)