

Software Implementation and Testing Document

**For
Group 7**

Version 1.0

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Programming Languages

We are using the following:

- **JavaScript** for the frontend (React) and backend (Node.js).
- **MongoDB** as the NoSQL database for task, user, and organization data.

Platforms, APIs, Databases, and Technologies

- **MongoDB Atlas**: Cloud-based MongoDB for database management.
- **Express.js**: Backend framework for handling APIs.
- **React.js**: Frontend framework for user interface.
- **Node.js**: Server-side JavaScript runtime.
- **FullCalendar**: Calendar integration for task deadlines.
- **JWT**: For user authentication and session management.

Execution-based Functional Testing

At this stage, no functional testing has been performed since development hasn't begun. Functional tests will be planned for user registration, task creation, and role-based permission management.

Execution-based Non-Functional Testing

Non-functional testing will focus on ensuring the application is responsive, secure, and scalable. We will evaluate the security of user data and the application's performance across devices.

Non-Execution-based Testing

Once the development begins, we plan to conduct code reviews and walkthroughs to ensure code quality and identify potential issues early on.