

Software Implementation and Testing Document

For

Group <7>

Version 2.0

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1. Programming Languages (5 points)

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.

2. Platforms, APIs, Databases, and other technologies used (5 points)

- **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.

3. Execution-based Functional Testing (10 points)

We tested user registration and login system by creating an example user in the database and tried to login using the created credentials. We also created users using the sign-up window from the home page, and using MongoDB Compass, we monitored the users' info appearing in the database.

4. Execution-based Non-Functional Testing (10 points)

All users created through the sign-up window appeared with encrypted passwords in the database.

5. Non-Execution-based Testing (10 points)

Team members reviewed their own code ensuring the use of generic programming and readability of their code.