

Software Implementation and Testing Document

For

Group 4

Version 1.0

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1. Programming Languages (5 points)

Frontend

- JavaScript (React) - Used for building the user interface, pages, and reusable components. Chosen for its efficiency in creating interactive UIs and managing state.

Backend

- C# - This is used for the class libraries and interacting with the ASP.NET API services that are being utilized.

Database

- SQL – This is the most common and foundational language used with MySQL databases.

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

Frontend

- React- For building the UI and reusable components. (Workout, biometric, admin pages)
- Tailwind CSS- for styling components.
- Browser local storage (for now)- Temporarily storing biometric and placeholder data until API integration
- Figma- For building low and high-fidelity prototypes for UXUI

Backend

- ASP.NET Core Web REST API – For communication between the frontend and database in a consistent JSON packet format.

Database

- MySQL – Database management system chosen to help store and retrieve data.

Source Control

- Git – Source code management and team collaboration.

3. Execution-based Functional Testing (10 points)

Increment 1 - "For the first increment, only sections 1 and 2 of the document are required."

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

Increment 1 - "For the first increment, only sections 1 and 2 of the document are required."

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

Increment 1 - "For the first increment, only sections 1 and 2 of the document are required."