**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.”