**Project Design Phase**

**Problem – Solution Fit Template**

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| Date | 6 March 2025 |
| Team ID | SWTID1741257108149874 |
| Project Name | FitFlex |
| Maximum Marks | 2 Marks |

### **Problem – Solution Fit Overview**

The **Problem-Solution Fit** ensures that the identified problem aligns with the needs of users and that the proposed solution effectively addresses it. This concept helps developers, marketers, and business strategists validate the necessity and effectiveness of their solution before further development.

### **Purpose:**

* Address the lack of a structured and seamless communication platform for users who seek real-time messaging and chat history accessibility.
* Provide an intuitive and engaging experience for users to chat and retrieve past messages quickly without delays.
* Offer seamless navigation and real-time data retrieval using Convex to enhance user experience.
* Improve accessibility and engagement through an interactive UI, responsive design, and well-structured data flow.

### **Problem Statement:**

Many users struggle to find an efficient and real-time chat solution that allows smooth communication, message history retrieval, and user status updates. Most available platforms either require complex setups, lack real-time interaction, or do not offer a seamless user experience across devices.

### **Solution:**

* A **MERN stack-based chat application** that provides users with an easy-to-navigate interface for real-time messaging.
* **Integration with Convex** ensures low-latency and scalable real-time data handling.
* **Axios-powered API requests** ensure smooth data retrieval and storage of messages with minimal delays.
* **Categorization and search functionalities** improve accessibility and user engagement.
* A **scalable and responsive UI design** ensures a seamless experience across different devices.