Project Design Phase
Proposed Solution Template

Date	3 April 2025
Team ID	SWTID1742834197
Project Name	Personal Expense Tracker App
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Managing personal finances manually is difficult and inefficient. Users struggle to keep track of income, expenses, and budgeting, which may lead to poor financial decisions and lack of awareness about their financial health.
2.	Idea / Solution description	This project proposes a full-stack web application using the MERN stack (MongoDB, Express.js, React.js, Node.js). It allows users to register, log in, and manage their financial transactions. It supports categorization, filtering, insightful reports via a dashboard, and secure user data handling using JWT
3.	Novelty / Uniqueness	The use of **React Redux** for global state and **React Query** for server state adds performance efficiency. Tailwind CSS provides a modern, responsive UI. The app also includes protected routes, authenticated dashboards, and a visually engaging analytics display for personal finance tracking.
4.	Social Impact / Customer Satisfaction	Helps individuals and small businesses improve their financial literacy, planning, and savings by offering a simple and interactive tool to monitor expenses and income. Provides peace of mind with secure access, intuitive UI, and a reliable platform for financial tracking.
5.	Business Model (Revenue Model)	Freemium model: basic expense tracking features are free. Premium plans can offer multi-device sync, export to Excel/PDF, personalized insights, ad-free experience, and budget alerts. Additional monetization options include targeted financial product advertisements.
6.	Scalability of the Solution	The app can be scaled to support multiple users using cloud-based MongoDB (e.g., Atlas), containerized backend with Docker, and horizontal scaling with load balancers. The architecture supports mobile extension, PWA development, and enterprise-level financial modules for small businesses