Software Requirements Specification (SRS)

Project: Cost Wise Innovators – Cost Optimization Dashboard
Team: CSDD1
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1. Introduction

This document outlines the software requirements for the Cost Wise Innovators Dashboard. It includes the functional and non-functional requirements, system features, and external interfaces necessary for the successful implementation of the dashboard.

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2. Purpose

The purpose of this document is to define the complete software requirements for the Cost Optimization Dashboard. It serves as a guideline for developers, testers, and stakeholders throughout the project lifecycle.

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3. Scope

The Cost Wise Innovators Dashboard is a web-based tool that allows users to track, analyze, and optimize their expenses. It provides data visualizations, budget alerts, and personalized insights. The application will be mobile-responsive and include user authentication.

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4. Definitions, Acronyms, and Abbreviations

- UI: User Interface
- UX: User Experience
- API: Application Programming Interface
- DB: Database
- JWT: JSON Web Token

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5. Overall Description

The system is intended to work as a web dashboard that interacts with a backend server and a database. Users can log in, input or upload expense data, set budgets, and view visualizations. The dashboard will help users identify patterns and overspending areas.

6. Functional Requirements

- User registration and login
- Add, edit, and delete expenses
- Set monthly budgets with thresholds
- Generate visualizations (bar, pie, line charts)
- Export reports to PDF/Excel
- Alert user when near/over budget
- Admin privileges for managing users (optional future scope)

7. Non-Functional Requirements

- **Usability:** The system should be intuitive and easy to use
- **Performance:** Dashboard should load within 2 seconds
- **Security:** All user data must be securely stored with authentication
- **Compatibility:** Support all modern browsers and mobile devices
- **Scalability:** Design should support growing number of users

8. System Features

- Interactive Dashboard
- User Profile Management
- Budget Monitoring Module
- Alerts & Notifications System
- Report Generation
- Visual Analytics Tools

9. External Interface Requirements

User Interfaces:

- Clean, responsive web interface built with React.js
- Mobile-responsive layout

Hardware Interfaces:

- Compatible with desktops, tablets, and smartphones

Software Interfaces:

- Firebase Authentication
- MongoDB / Firebase Realtime Database

Communications Interfaces:

- HTTPS for secure client-server communication

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10. Assumptions and Dependencies

- Users will have a stable internet connection
- The system will use Firebase or MongoDB as backend services
- Users will use modern browsers (Chrome, Edge, Safari, Firefox)