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Team Alpha

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Smartfin System Requirements Document

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# **Introduction**

This document outlines the core system requirements for SmartFin, a financial management application. It includes the class diagram, use case diagram, use case scenarios, and corresponding system sequence diagrams, which together define the system's structure and behavior. These components ensure a shared understanding of how the system operates and how users interact with its features. This document provides a structured reference for guiding the development process, ensuring the system is thoroughly tested, and clearly communicating functional expectations to support successful implementation.

# **Description Model**

SmartFin accepts user inputs including email, password, and two-factor authentication codes for secure access. Users can connect bank accounts, upload receipt images, and define reminders, savings goals, or calendar events. Inputs also include date filters and notification preferences. The system outputs categorized transactions, monthly summaries, financial graphs, calendar views, downloadable reports, and notifications. Receipt data is parsed and linked to spending records. Core processes include user authentication, bank integration, receipt scanning via OCR, transaction categorization, report generation, and reminder scheduling. Users can also manage financial events through a calendar interface. SmartFin is optimized for performance, with transaction syncing, dashboards loading and OCR results delivered within 3-5 seconds. The system maintains almost constant up time, and reminders are sent within one minute of their trigger. Security features include mandatory 2FA, encrypted data transmission, short session timeouts, and restricted access by role.

# **Class Diagram**

*Submitted to Github*

# **Use Case Diagram**

*Submitted to Github*

# **Use Case Scenarios**

*Submitted to Github*

# **System Sequence Charts**

*Submitted to Github*