

- **Title:** Bank Management System

- **Short description** : a comprehensive C++ banking system. This object-oriented application implements core banking functionalities with a focus on clean, maintainable code and security.

- **Functionalities:**

* **Client Management:**

Add new clients with detailed profiles

View complete client list

Search for specific clients

Delete client records

* **Account Transactions:**

Deposit funds

Withdraw funds

Transfer money between accounts

Transaction logging Transfer

history tracking

* **User Management:**

Multi-user support with different access levels

User authentication and login system

Login attempt tracking

User activity logging

User permissions management

* **Currency Exchange**

List available currencies

Find specific currency rates

Update exchange rates

Currency conversion calculator

Support for multiple currencies

* **Security Features**

Password-protected access

User permissions system// Failed login attempt tracking// Session management//

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Feasibility Report: Bank Management System

Technical Feasibility

- **Language:** C++
- **Storage:** File-based system

User Feasibility

- **Target Users:** Tellers, Managers, Admins, Customers
- **Advantages:** Cost-effective, secure, multi-currency support, reduces errors

Schedule Feasibility

- **Timeline:** 6 weeks (Planning → Core Dev → Advanced Features → Testing)

Improvement Areas

- **Immediate:** Database integration, Web interface, Mobile app, APIs
- **Long-term:** AI fraud detection, Blockchain, Cloud deployment, Analytics

Project Overview

Core System

Console-based Banking Management System with integrated Currency Exchange functionality

Key Features

- User Authentication & Security
- Client Account Management
- Financial Transactions
- Currency Exchange
- Audit Logging

Technical Specs

- Platform: Windows C++
- Storage: Text files
- Architecture: Console-based
- Scope: Local operation

Functional Requirements Summary

Authentication (M)

- User login system
- Session management
- Role-based access

Client Management (M)

- View client list
- Search clients
- Add/Update/Delete clients

Transactions (M)

- Deposit/Withdraw funds
- Inter-account transfers
- Balance management

Currency Exchange (S)

- View currencies/rates
- Conversion calculations
- Exchange transactions

Non-Functional Requirements Summary

Security (M)

- Password protection
- Authentication system
- Permission management
- Login attempt tracking

Data Management (M)

- Transaction tracking
- Input validation
- User activity logging
- Data integrity

Currency & Reliability (S)

- Periodic rate updates
- Multi-currency support
- Error handling