

24/9/24

## → Credit Card System

## 1. Introduction

This document outlines the system requirements for the Credit Card system. The system will provide functionality for credit card application, approval, transaction processing, billing, fraud detection, and customer account management.

## 1.1 Purpose

The purpose of the requirement document is to streamline the credit card operations and provide a robust platform for managing cardholder data, transactions & account activities efficiently and securely.

## 1.2 Scope

The system will manage the full lifecycle of a credit card, from application and approval to transaction and billing and customer support. It will cater to the customers, credit card admins, and bank staff.

## 2. System Requirements.

## 2.1 Functional Requirements.

## 2.1.1 Credit Card application

- Customers must be allowed to submit credit card applications online
- Applications should be stored securely and accessible by credit card approval officers.

## 2.1.2 Credit Approval

- Credit officers must have a dashboard to review applications and credit scores.
- Officers can approve / reject applications based on predefined criteria.



### 2.1.3 Customer account management

- cardholders must have secure access to their login account through a secure login.
- Users should be allowed to view credit, balance & transaction history. They must be able to update their information.

### 2.1.4 Transaction Processing

- System must be able to process transactions in real-time.
- Support multiple currencies & allow for currency conversion.
- Integration via payment networks (Visa, Mastercard).
- Store detailed logs of all transactions.

### 2.1.5 Billing & Payment Processing

- Generate monthly statements for each cardholder detailing their transactions, payments & balances.
- Support for various payment methods.
- Cardholders should receive due date reminders and late payment notifications.

## 2.2 Non-Functional Requirements

### 2.2.1 Performance

- The system must be able to handle up to 10,000 concurrent transactions per second.
- Transaction processing should complete within 2 seconds on average.

### 2.2.2 Security

- All sensitive data must be encrypted. (Credit card number etc)
- Multi Factor authentication should be required for both admins & customers
- Regular vulnerability assessments & penetration testing must be performed.



### 2-2.3 Usability

- The user interface must be intuitive and support all modern web browsers and mobile devices
- System error messages must be user friendly.

### 2-2.4 Maintainability

- System should support modular development for future enhancements
- Provide clear documentation for developers & admins.

## 2.3 Domain Requirements.

### 2.3.1 Credit Card Issuance

- Applicants must be at least 18 years of age and provide valid government-issued identification.
- Applicants must provide valid proof of income and employment to determine worthiness.

### 2.3.2 Cardholder Account Management

- System must allow customers to request card replacements or upgrades (from standard to premium)
- Late payment fees must be applied automatically if payments are not received by the due date.

### 2.3.3 Transaction management

- Transactions exceeding predefined thresholds must trigger an additional verification process.



### 1.3 Overview

The product will serve as an end-to-end solutions for managing credit card applications, customer accounts, real time transaction processing. It will support both end users (cardholders) and admin users (officers) by providing different levels of access. Security and regulatory compliance will be a core focus.

### General Description

The system outlines the general functionality of the credit card system. The system caters to different user categories: admins, credit officers, cardholders & customer support agents. Each user group will have a specific set of features available based on their role. This section will also highlight the overall benefits of the system, such as faster credit approvals, real time transaction monitoring, fraud detection.

### 2.4 Interface Requirements

#### 2.4.1 User Interface

- Intuitive web interface for cardholders & admins.
- Application must be available for both iOS & Android

#### 2.4.2 External interfaces

- must integrate to external credit bureaus to retrieve credit scores.
- must integrate with third party payment gateways.

#### 2.4.3 API Integration

- Provide secure API to allow third party services.

### 4. Preliminary Schedule & Budget

The initial development & deployment of the system is expected to take approximately 12 months.

Requirement gathering : 2 months.

Design and architecture : 2 months

Testing : 1 month

Deployment : 1 month



## Budget:

Development costs: \$500,000

Testing &amp; QA: \$100,000

Infrastructure &amp; cloud hosting: \$50,000

Ongoing maintenance: \$30,000 per year

By 1/10/24