

# Credit Card Processing System

## Purpose

The document outlines the requirements for Credit Card Processing System (CCPS) to serve as a framework for stakeholders and developers to ensure alignment on system functionalities and performance expectations.

## Scope

The CCPS will facilitate secure credit card transactions, providing functionalities for the customers.

## Overview

The CCPS is designed to process credit card transactions securely and efficiently, supporting various payment methods.

## General description

The CCPS allows customers to accept credit card payments and manage transactions and perform refunds. Key features include:

- i) Secure payment processing
- ii) Transaction history tracking
- iii) Refund and dispute management

## Functional Requirements

### Transaction processing

Process credit card payments securely.

- (ii) User authentication  
Verify user identity before transaction processing.
- (iii) Transaction history  
maintain a record of all transactions for user access.
- (iv) Refund processing  
Allow merchant to issue refunds as to customers.
- (v) dispute management  
Provide functionality for managing payment disputes.

### Interface Requirements

The CCPS will interface with:

- i) User Interface  
Web and mobile interface for Merchants and customers.
- (ii) Payment Gateway  
Integrate with various credit card networks.
- (iii) Banking APIs  
for fund transfer and transactions.

### Performance Requirements

The system should:

- i) Process transactions within 2 seconds.



- i) Handle upto 500 simultaneous transactions
- ii) Ensure 99.99% transaction success rate

### Design Constraints

- i) must comply with PCI DSS Standard
- ii) Developed using SQL Server
- iii) must operate on cloud infrastructure

### Non Functional Attributes

- i) Security  
End-End encryption and secure data storage
- ii) Reliability  
Ensure system availability with minimal downtime

- iii) Scalability  
Able to increase in transaction volume

### Budget

Initial budget: \$150,000.

Project duration: 4 months

Requirements Gathering: 1 month

Design: 1 month

Development: 1.5 months

Testing: 0.5 months.

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