

Credit card processing system

1. Introduction

The purpose of this document is to describe the requirements and specifications of a credit card processing system. This document explains the objectives, scope and deliverables in a simple way so that developers and users can understand the overall working of the system.

1.2 Scope of document

This document defines the working & goals of credit card processing system. It includes features like transaction authorization, fraud detection, billing & report generation.

1.3 Overview

The credit card processing system is software designed to handle credit card payments ~~securely~~ & efficiently.

2. General Description

The system will be useful for banks, merchants and customers. It will include functions like transaction authorization, payment settlement, fraud detection & billing.

3. Functional Requirements

3.1 Transaction Processing

- > authorize transactions instantly
- > validate card details & account balance
- > handle refunds & cancellations

3.2 Fraud Detection

- > detect suspicious transactions using rules
- > Alert administrators about possible fraud

3.3 Account Management

- > maintain customer credit card profiles
- > manage credit limits & outstanding balance

3.4 Billing & Reporting

- > generate monthly bills for customers
- > provide transaction history reports for merchants & banks

4. Interface Requirements:

- 4.1 User Interface
 - > simple & clear interface for ^{customers} transaction.
 - > Accessible via web browser.

4.2 Integration Interfaces:

- > Integration with payment gateways.
- > support for third-party merchants.

5. Performance Requirements:

- > The system should process transactions within 3 seconds.
- > Support at least 500 concurrent transaction during peak hours.

6. Design constraints:

- > Should run on standard bank servers & POS terminals.
- > Should use relational database.

7. Non-functional Requirements:

- > Security: use Encryption and authentication to protect card details.

- > Reliability :- ensure high availability to minimize failed transaction.
- > Scalability :- Design for future expansion with more users and merchants.
- > Data Integrity :- store and retrieve transaction data accurately and consistently.

8: Preliminary Budget & Schedule

The development of credit card processing system is estimated to take 8 months with a budget of at least \$ 150,000. This includes planning, development, security testing, & deployment.