

# Credit Card processing system

## 1. Introduction

### 1.1 Purpose

To define the requirements for a system that handles secure credit card payments, fraud detection and compliance with financial standards.

### 1.2 scope

The system will process payments, manages refunds, detect fraud, and integrate with payment gateways. Development is estimated at 6-9 months with a budget of \$150,000.

### 1.3 overview

The system will authorize, process and settle credit card transactions ensuring security and scalability for merchants and cardholders.

## 2. General Description

### 2.1 Functions

- payment authorization & processing
- Refund handling
- Fraud detection
- Reporting for users

### 2.2 user characteristics

- Cardholders
- Merchants
- Admin

## 2.3 feature & Benefits

- Secure transaction processing
- Fraud monitoring
- Detailed reporting
- Refund management

## 3. Functional Requirements

- Payment Authorization
- Transaction processing
- Refunds
- Fraud Detection
- Reporting

## 4. Interface Requirements

- User Interface
- Database
- Payment gateway
- API

## 5. Performance Requirement

- Support up to 1,000 transaction/sec
- Transaction response within 2 sec
- Max downtime 1hr/ month

## 6. Design constraints

- PCI-DSS compliance
- Data encryption
- Use of standard fraud detection
- Compatibility with cloud

## 7. Non-functional Attributes

- security
- portability

- Reliability
- Scalability

8. Preliminary schedule & Budget

- Time : 6-9 months

Budget : \$150,000.

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