

# Credit card processing system

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## Problem statement

The aim is to design and implement a robust credit card processing system that facilitates secure and efficient transaction between merchants and customers.

## Purpose of this document:

The purpose of this document is to outline the specification and requirements for the development of credit card processing system. It serves as a comprehensive guide for development team, stakeholders and users.

## Scope of document

This document defines the overall working and objectives of the credit card processing. It describes the value it will provide to customers, stakeholders including secure and efficient handling of credit card transactions.

## Overview

The credit card processing system is designed to facilitate the processing of credit card transaction securely.

## 2. General description:

- Authorization of credit card transaction in real time.
- Settlement of transaction
- Management of customer accounts and payment methods.

## 3. Functional Requirements:

- Ability to verify the validity of credit card information, including card number, CVV.
- Settlement
  - Capture fund from authorized transaction and initiate settlement process.
  - Generation of transaction receipts for merchant and customers.
- Customer management
  - Registration of new customers with payment information and preferences.
- Integration
  - Integrate with payment gateways and merchant services providers for processing transactions.



## Interface Requirements

- Intuitive with external payment gateways and for merchants to initiate and manage transactions
- Secure login and authentication mechanism for accessing the system

## Performance Requirement

- Response time
  - Quick response time for authorizing transactions and processing payment
  - Scalable architecture to handle peak transaction load without degradation in performance.

## Design constraints.

- Compliance with industry standards such as PCI DSS for securing payment card data
- Encryption of sensitive payment information service availability.
- Non-functional Attributes

- Ability to Scale the credit card processing system to accommodate growth in transaction volume and user base.
- Elasticity to adapt to changing business needs and market demand.
- Preliminary schedule and Budget

The development of credit card processing system is estimated to take approximately 9 months with a budget \$100,000. The schedule includes phases of requirement gathering, design, implementation.