

Friday

II3 (credit card processing)

Problem statement:

Existing credit card processing system lack efficiency, security and scalability, leading to issues such as fraud and system downtime. A robust credit card processing system is needed to provide real-time authorization, seamless settlement and effective customer management while ensuring compliance with industry standard and regulations.

SRS Documentation:

1. Introduction

1.1 Purpose of this Documentation

The purpose of this documentation is to outline the specification and requirements for the development of a Credit Card Processing system. It serves as a comprehensive guide for the development team, stakeholders, and users, detailing the objectives, scope and overview of the system.

1.2 Scope of this Document

It describes the value it will provide to customers and stakeholders, including secure and efficient handling of credit card transactions. Additionally, it outlines the development cost and time required for the project.

1.3 Overview

The CCPS is designed to facilitate the processing of credit card transactions securely and efficiently. It provides a centralised platform for merchants to accept

payments from customers using credit cards, ensuring compliance with industry standards and regulations.

2. General Description

The Credit Card Processing system facilitates the following functions:

- Authorization of credit card transactions in real-time.
- Settlement of transactions, including capturing funds and generating receipts.
- Management of customer accounts and payment methods.
- Integration with payment gateways and merchant service providers.

3. Functional Requirements

3.1 Authorization

- Ability to verify the validity of credit card info, including card number, expiration date and cvv.
- Real time Authorization of transactions based on available credit and fraud detection mechanism.

3.2 Settlement

- Capture funds from authorized transactions and initiate the settlement process.
- Generation of transaction receipts for merchants & customers.

3.3 Customer Management

- Registration of new customers with payment information and preference.
- Ability to update and manage customer accounts, including adding or removing payment methods.

3.1 Integration:

- Integration with payment gateways and merchant service providers for processing transactions.
- Compatibility with various payment methods, including credit, debit cards and digital wallets.

4. Interface Requirements

4.1 User interface

- Intuitive and user-friendly interface for merchants to initiate and manage transactions.
- Secure login and authentication mechanisms for accessing the system.

4.2 System interfaces:

- Integration with internal payment gateways and merchant services providers via APIs.
- Secure communication protocols for transmitting sensitive payment data.

5. Performance Requirements

5.1 Response time

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

5.2 Reliability

- Reliable transaction processing with minimal downtime or system failure.
- Fault tolerance to ensure uninterrupted service availability.

6. Design Constraints

- Adherence to regulatory requirements and standards governing credit card processing, including GDPR and CCPA
- Regular audits and security assessments to maintain compliance.

7. Non-functional Attributes:

7.1 Scalability

- Ability to scale the CCP system to accommodate growth in transaction volume and user base.
- elasticity to adapt to changing business needs and market demands.

7.2 Portability

- Compatibility with different OS and hardware platforms.
- cloud deployment options for flexibility and scalability.

8. Preliminary Schedule and Budget

The development of the CCP system is estimated to take approximately 9 months with budget of 4100,000. The schedule includes phases for requirements gathering, design, implementation, testing and deployment.