

→ Credit Card Processing System.

Introduction.

* Purpose of this Document:

To outline the specification and requirements for the development of a Credit Card Processing System. It serves as a comprehensive guide for the development, stakeholders, and user, detailing the objective, scope and overview of the system.

* Scope of this Document:

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

* Overview:

IS designed to facilitate the processing of credit cards transactions securely and efficiently. It provides a centralized platform for merchant to accept payment from customers using credit cards, ensuring compliance with industry standards and regulation.

General Description

- Authorization of credit card transactions in real time
- Management of customer accounts and payment methods
- Integration with payment gateway and merchant service provider

Functional Requirements

* Authorization:

- Ability to verify the validity of credit card information, including card number, expiration date and CVV
- Real-time authorization of transactions based on available credit and fraud detection

* Settlement:

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

* Customer Management

- Registration of new customers with payment information and preferences

- Ability to update and manage customer accounts, including adding or removing payment method.

Integration:

Integration with payment gateways and merchant services providers for processing transaction

compatibility with various payment method including credit cards, debit cards, and digital wallets.

Interface Requirements:

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

→ System Interfaces:

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

→ Performance Requirements:

Response time:

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

→ Reliability

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

→ Design constraints

* Security

- Compliance with industry standards such as PCI DSS for securing payment card data
- Encryption of sensitive payment information during transmission and storage

* Compliance:

- Adherence to regulatory requirement and standards governing credit cards processing including GDPR and CCPA.
- Regular audits and security assessments to maintain compliance.

* Non-Functional Attributes:

Scalability:

- Ability to scale the credit cards processing system to accommodate growth in transaction volume and user base.

Portability:

- * Compatibility with different operating systems and hardware platforms.
- * Cloud deployment options for flexibility and scalability.

→ Preliminary Schedule and Budget:

- * The development of the audit card processing system is estimated to take approximately 9 months with budgets of \$100,000. This schedule includes phases for requirements gathering, design, implementation, testing and deployment.