

Credit card processing system

1. Introduction

1.1 purpose of this Document :

this document explains the design and development of a credit card processing system, aimed at enabling secure and efficient processing of credit card transactions.

1.2 Scope of this Document :

The system covers the entire lifecycle of a credit card transaction, ensuring secure payment processing. The project is expected to be completed in 5 months with a controlled budget.

1.3 Overview :

The system automates credit card payments, handling tasks such as authorization, transaction validation, and payment settlement between banks and merchants.

2. General Description :

The system will manage credit card payments by securely processing transaction data. users

Include merchants, customers and banks. The main benefit is increased transaction speed and security.

3. Functional Requirements:

- Transaction authorization & validation.
- Fraud detection and prevention.
- Payment gateway integration.
- Customer data encryption.

4. Interface Requirements:

The system provides a merchant-facing dashboard for transaction tracking, while customers interact via a secure payment portal. Data will be processed in real-time, ensuring fast transactions.

5. Performance Requirements:

The system will process transactions within 2-5 seconds, ensuring high security, 99.9% availability, and minimal transaction failures.

6. Design constraints:

The system must comply with financial regulations & support encryption standards. The project will be developed within a 5 month time frame & limited budget constraints.

7. Non-functional Attributes:

Key non-functional features include strong security, reliability, scalability to handle large transaction volumes, and compatibility with multiple payment gateways.

8. Preliminary schedule & Budget:

The project will take 5 months to complete, with a budget of INR 4,00,000 covering software development, integration and testing.