CREDIT CARD PROCESSING SYSTEM

Problem Statement:

To design a credit card processing system that overcomes the challenges faced by merchants, customers, and banks during credit card transactions. The current systems often lack transparency, security, and reliability, leading to low trust and confidence among stakeholders. This results in lost sales for merchants, inconvenience for customers, and financial losses for banks due to chargebacks and disputes. The proposed system should be fast, secure, and reliable, ensuring seamless and error-free processing of credit card transactions for all parties involved. It should also minimize the risk of fraud and disputes by incorporating advanced security measures and real-time tracking of transactions. Moreover, the system should comply with relevant industry standards and regulations and be scalable and adaptable to meet the changing needs of the market. By addressing these issues, the new credit card processing system will improve the user experience, reduce financial losses, and enhance trust and confidence in the credit card processing industry.

Software Requirement Specification(SRS)

1 Introduction:

1.1 Purpose of this Document:

The purpose of this document is to provide a detailed description of the requirements for the development of a Credit Card Processing System. This document outlines the functional and non-functional requirements of the system and serves as a guide for the development team.

1.2 Scope of this Document:

The document covers the functional and non-functional requirements of the Credit Card Processing System. It also includes design constraints, interface requirements, performance requirements, non-functional attributes, and a preliminary schedule and budget.

1.3 Overview:

The Credit Card Processing System is a software application designed to enable businesses to accept credit card payments from their customers. The system provides a secure, fast, and reliable way to process credit card payments, reducing the risk of fraud and increasing customer satisfaction.

2 General Description:

The Credit Card Processing System should meet the following general requirements:

- The system should enable businesses to accept credit card payments from their customers securely and efficiently.
- The system should provide an easy-to-use interface for business owners to manage their credit card payments and transactions.
- The system should be flexible and customizable to accommodate different business needs and requirements.

3 Functional Requirements:

The Credit Card Processing System should meet the following functional requirements:

- The system should allow businesses to enter credit card information manually or through a card reader.

- The system should verify the credit card information and check for any fraud or suspicious activity.
- The system should process the credit card payment securely and efficiently.
- The system should generate reports and receipts for each transaction.
- The system should allow businesses to manage refunds and chargebacks.

4 Interface Requirements:

The Credit Card Processing System should provide the following interfaces to enable efficient communication between the system and its users:

- A user-friendly interface for business owners to manage their credit card payments and transactions.
- An interface for customers to enter their credit card information securely.
- An interface for the system to communicate with other payment gateways and card issuers.

5 Performance Requirements:

The Credit Card Processing System should meet the following performance requirements:

- The system should be able to handle a high volume of credit card payments and transactions.
- The system should have a response time of less than 2 seconds for all user interactions.
- The system should be able to handle multiple user sessions simultaneously without any downtime.

6 Design Constraints:

The following design constraints should be considered during the development of the Credit Card Processing System:

- The system should be developed using a secure architecture that can protect credit card data and transactions from unauthorized access.
- The system should be compatible with commonly used hardware and software platforms.
- The system should be designed to minimize maintenance requirements and ensure ease of upgrades.

7 Non-Functional Attributes:

The Credit Card Processing System should meet the following non-functional attributes:

- Security: The system should be secure and protect credit card data and transactions from unauthorized access.
- Portability: The system should be portable and able to run on different hardware and software platforms.
- Reliability: The system should be reliable and minimize downtime or errors.
- Reusability: The system should be designed to facilitate the reuse of components and modules in future projects.
- Application Compatibility: The system should be compatible with other applications used in the payment processing industry.
- Data Integrity: The system should ensure data integrity and accuracy of information.
- Scalability Capacity: The system should be designed to accommodate future growth and scale easily.

8 Preliminary Schedule and Budget:

The development of the Credit Card Processing System is estimated to take eight months, and the budget for the project is $150,000. The development team will work in phases, with each phase having specific deliverables and milestones. The project manager will oversee the project and ensure that the development team adheres to the timeline and budget. Regular progress reports will be provided to stakeholders to keep them informed of the project's status.