Problem statement

Credit card processing through offline involves the merchant collecting order information (including credit card numbers), storing this in a database on your site, and entering it using their on-site merchant credit card processing system. Takes time to manually enter credit card information for each order. This solution creates following cons: · Insecure – there is a possibility that a skilled hacker could break into the database and steal an entire list of credit card numbers, thereby damaging the merchant's reputation with current client.There is a higher risk of customer charge backs with no signature · Higher risk of fraud for using stolen credit cards · Many discerning online shoppers will not give their credit card to an "untrusted" online merchant (you may want to consider being part of the Better Business Bureau or similar organization to add credibility). So there is a need of online and trusted credit card processing

Software Requirement Specification(SRS) for credit card processing

1 Introduction:

1.1 Purpose of this Document: The purpose of this document is to provide a detailed description of the software requirements for the Credit Card Processing System. This document will serve as a guide for the development team to ensure that the system is designed and implemented according to the customer's needs.

1.2 Scope of this document –This document outlines the main objectives of the Credit Card Processing System and the benefits it will provide to the customer. It also includes a description of the estimated development cost and time required for the project.

1.3 Overview –The Credit Card Processing System is designed to provide a secure and efficient platform for processing credit card transactions. The system will allow customers to make purchases online or in-store using their credit cards, and merchants to accept and process these transactions.

2 General description: The Credit Card Processing System will provide users with a secure and reliable way to process credit card transactions. It will be designed to meet the needs of both customers and merchants. The system will include features such as fraud detection, payment processing, and transaction history. The user community for the system will include customers, merchants, and financial institutions.

3 Functional Requirements: The functional requirements for the Credit Card Processing System include:

Secure user authentication

Credit card verification and validation
Payment processing and transaction history
Fraud detection and prevention
Refund processing
Reports generation and data analysis

4 Interface Requirements: The Credit Card Processing System will communicate with users and other systems through various interfaces, including:
Web-based user interface for customers and merchants
Application programming interface (API) for integration with other systems
Payment gateway interface for transaction processing
Merchant account interface for account management

5 Performance Requirements: The Credit Card Processing System must meet the following performance requirements:
Processing time for credit card transactions should be less than 5 seconds
The system must be able to handle at least 1,000 transactions per second
Maximum error rate for credit card processing should be less than 0.1%
The system must be available 99.99% of the time

6 Design Constraints: The following design constraints must be considered during the development of the Credit Card Processing System:
Compliance with Payment Card Industry Data Security Standards (PCI DSS)
Use of encryption and other security measures to protect sensitive data
Integration with existing payment gateways and financial institutions
Use of industry-standard programming languages and development tools

7 Non-Functional Attributes: The following non-functional attributes must be considered during the development of the Credit Card Processing System:
Security: The system must provide a high level of security to protect against fraud and data breaches.
Portability: The system must be designed to run on various platforms and devices.
Reliability: The system must be reliable and available 24/7 to ensure that transactions can be processed at any time.
Reusability: The system must be designed to be modular and reusable for future enhancements.
Application Compatibility: The system must be compatible with existing software applications used by customers and merchants.
Data Integrity: The system must ensure that data is accurate and consistent across all transactions.
Scalability Capacity: The system must be designed to handle a large volume of transactions as the business grows.

8 Preliminary Schedule and Budget: The preliminary schedule and budget for the Credit Card Processing System project are as follows:
Estimated development time: 6 months
Estimated development cost: $500,000
These figures may be subject to change based on the specific requirements of the project and any unforeseen issues that may arise during development.