(2)=> Credit Card Processing System

1 Introduction

1.1 Purpose of this Document

The purpose of this document is to provide a detailed description of the requirements for the credit card processing system. It will serve as a guide for the design & development teams to build the system in accordance with business needs & compliance standards.

1.2 Scope of this Document

- This document describes the objectives, features, and the involved in the development of a secure & efficient credit card processing system. The system will enable merchants to process credit card transactions & manages related customer data. The estimated time for development is 12 months, with a $500,000

1.3 Overview

The Credit card Processing system will enable businesses to handle customer payments through credit card transactions. It will support various types of cards & transaction types. The system will integrate with payment gateways & ensure compliance with security standards.

2. General Description

The system will handle card transactions, fraud detection, customer data management & reporting. Primary users are merchants, financial institutions & cardholders. The system will ensure high levels of security & efficiency in processing payments. It will be flexible enough to integrate with diff. POS systems & online payment platforms.

3. Functional Requirements

- Credit card Authorization
- Payment Processing
- Fraud Detection mechanism
- Transaction reporting & Analytics
- Integration with Payment gateways.
- User & Merchant Account Management

4. Interface Requirements

- The system will interact with multiple payment gate via API's for transaction processing
- Integration with merchants, POS systems & online checkout platforms
- Web based interface for merchants to view transacti histories & reports

5 Performance Requirements
- Must handle upto 1000 transactions per minute
- Transaction approval time should be under 2 seconds
- Max error rate should be 0.05%
- System should be able to handle peak traffic holidays & sales.

6 Design Constraints
- Compliance with PCI-DSS security standards is mandatory
- The system should use encryption protocols for data transmission
- Must be built using cloud infrastructure to ensure high availability & scalability.

7 Non Functional Attributes
- Security:- Must implement encryption (AES-256) for transaction data & storage.
- Portability: The system should be deployable across multiple cloud platforms
- Reliability:- Uptime of 99.99% is required
- Scalability:- Should support dynamic scaling based on transaction volume

8 Preliminary Schedule & Budget
- Development Time: 12 months
- Estimated Budget: $ 600,000
- Major milestones: Requirements analysis (2 months), design (3mths), development (5 months), Testing (2 months)