SRS for Credit card Processing System.

1. INTRODUCTION:

1.1 Purpose of the requirements document: To specify the requirements for the efficient use of credit card processing system.

1.2 Scope of the product: allows customers to make payments credit card at various locations. The system handles the authorization, capture and payment of transactions.

1.3 Definitions, acronyms and abbreviations
- POS: point of sale
- API: application programming interface
- CVV: card verification value
- EMV: Europay, Mastercard and Visa
- PCI-DSS: Payment card industry data security standard

1.4 References: Paypal, visa & Mastercard merchant guidelines

1.5 Overview: the document includes functional non functional aspects, constraints & domain specific features. It also describes the process of transaction initiation, validation, authorization & settlement.

2. General Description:

2.1 Product perspective: The system interacts with both external banking networks and internal systems for merchants. The system will interact with POS devices, mobile payment gateways & online e commerce platforms.

→ Bank perspective: interfaces with bank & card networks to authorize transactions, check for fraud and ensure funds are available
→ Merchant perspective: they will use the system to process credit card payments
→ Customers perspective: they will use the system to make payments securely using credit card & receive real-time authorization responses & view their transaction status.

2.2 Product functions: transaction authorization, transaction captured, transaction settlement, fraud detection, chargeback management, refund processing.

2.3 User characteristics:
merchants are business owners or staff processing payments at physical or online stores
- customers are individuals making credit card payments.
- banks are financial institutes that authorize transaction & provide merchant service

2.4 General characteristics:
* must comply with PCI-DSS standards for data security.
* system should support all major card types
* transactions above Rs 5000/- need additional authorization checks.

2.5 Assumptions and dependencies:
* merchants will ensure that customers input correct payment details
* system assumes constant connectivity with banks & card network for real-time authorization.

3. Specific Requirements:

3.1 Functional Requirements:
* Transaction authorization: validate card number, expiration date, CVV and address. ensure enough funds are there for transaction provide real time response to merchant & customer.
* Fraud detection: cross check transactions for unusual patterns based on user history.
* chargeback handling: automatically reverse payments when disputes are resolved in favor of the customer.
* refund management: enable partial & full refunds for authorized transactions.

3.2 Non functional requirements:
* Security: must comply with PCI-DSS standards to ensure data protection
* Performance: System should handle up to 500 transactions per second during peak times & avg. response time for authorization should be less than 2seconds

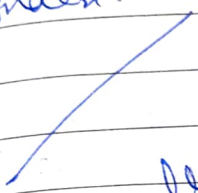
* reliability: system uptime should be 99.9% with failover mechanisms in place

3.3 Domain requirements:

* responsive user interface for mobile & desktop users
* inventory management.
* Support multiple payment gateways

4. ~~Appendices~~

5. Index.



Lee
11/10/24