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6. Design Constraints:

The system must comply with data protection laws, such as GDPR. Integration with payment gateways and other third-party services will require careful design.

7. Non-functional attributes:

(i) Security - Data encryption for sensitive information.

(ii) Reliability - The system should have minimal downtime.

(iii) Scalability - Must accommodate future growth and demand.

8. Preliminary Schedule and Budget

Initial development is estimated to take 6 months with a budget of $50,000, including software requirement and hardware requirements. design phase ($1000), design and implementation ($15000), validation & testing ($20000), evolution and maintenance ($14000).

11. CREDIT CARD PROCESSING SYSTEM SRS

1. Introduction:

1.1. Purpose of the document: This document outlines the requirements for a Credit Card Processing System (CCPS), which will manage the authorization and settlement of credit card transactions.

1.2. Scope of the document: The system will handle transactions such as authorizations, billing, fraud detection, and secure payment processing. Development will be aligned with industry standards for data security and transaction speed.

1.3. Overview: The CCPS will provide businesses

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with the capability to process credit card payments securely and efficiently. It will integrate with banks and financial institutions for real-time transaction processing.

2. General Description:

The CCPS will be used by businesses to accept credit card payments online or in-store. The system will handle transaction authorizations, refunds, and chargebacks, ensuring security and compliance with PCI-DSS standards.

3. Functional Requirements:

(i) User Authentication (Merchants).
(ii) Credit Card Authorization and Validation.
(iii) Transaction Processing and Settlement.
(iv) Refund Processing.
(v) Fraud Detection Mechanisms.
(vi) Reporting and Auditing.

4. Interface Requirements:

The system will integrate with point of sale devices and e-commerce websites. The interface will communicate with banks and card networks for transaction approvals.

5. Performance Requirements:

The system must process thousands of transactions per second with minimal latency. Response times should be within milliseconds for transaction approval or rejection.

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6. Design Constraints:

Must comply with Payment Card Industry Data Security Standards. Integration with various card networks and banking systems is required.

7. Non-Functional Attributes.

(i) Security - Must use tokenization and encryption for all transactions.

(ii) Portability - Should work across different platforms.

(iii) Scalability - Must handle increased transaction volume during peak times.

8. Preliminary Schedule and Budget:

Development is estimated to take 9 months with a budget of $100,000, considering integration with banks.

Requirements phase - $25,000
Design and implementation - $25,000
Verification and validation - $45,000
Evolution and testing - $25,000

Sept 30/9/24