2. Credit Card Processing

Problem Statement
The existing credit card processing system lacks efficiency and security measures leading to payment fraud risks and customer dissatisfaction. An upgraded credit card processing system is required to ensure seamless transactions enhance security, maintain customer trust.

1. Introduction:

1. purpose
The purpose of credit card processing functionality is to enable seamless and secure payment transactions for various services provided by various platforms.

2. Scope
This section outlines the requirements & specifications for integrating credit and card processing capabilities into various software. It includes handling payment authorizations, processing transactions and generating payment receipts

2.3 Overview
The credit card processing functionality will allow users to make payments using credit or debit cards for services rendered by various software. It will integrate with payment gateway services to securely process transactions.

3. Functional Requirements

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- Cataloging : based on books, journals
- Circulation Management : Searches access to library materials issuing management of borrowed
- Reservation management

5. Interface Requirements :
- User interface.
- Database interface.
- Integration Interface.

6. Performance Requirements
- Response time and should be minimum
- Real time updates
- Intuitive booking & managing interface

7. Design Constraints
- System should comply with industry standards
- System should compatable with existing software & hardware
- Robust library data from various entities.

8. Non-functional Attributes.
- Portability
- Reliability
- Scalability

9. Preliminary Gantt schedule and Budget
- Estimated timeline : 6 months
- Estimated budget : 25,00,000

5. Performance Requirements
- Transaction processing time: << seconds
- System availability for processing payments: 99.99%
- Secure transmission of credit card data using encryption protocols.

6. Design Constraints
- Integration with certified payment gateway providers
- Use of tokenization for storing and transmitting sensitive cardholder data securely
- Compliance with regulations and standards governing electronic payments.

7. Non-Functional Attributes
- Security: Encryption of credit card data during transmission and storage.
- Reliability: Fault tolerant architecture to ensure uninterrupted payment processing.
- Scalability: Ability to handle high volume of payment transactions during peak periods.

8. Preliminary Schedule and Budget: The integration of credit card processing functionality is estimated to take 2 months with an additional budget of $20,000. This includes development, testing and certification processes required for compliance with industry standards.

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