

2. Credit card Processing

1. Introduction:

1.1 Purpose of this documentation
The purpose of this document is to outline the requirements and specification for the development of a credit card processing system.

1.2 Scope of this documentation

This document defines the overall working and main objectives of the credit card processing system. It includes a description of the estimated development cost & time required for the project.

1.3. Overview

This credit card processing system is a software solution designed to handle credit card transaction securely.

2. General description

The credit card processing system will cater to the needs of merchants, banks and customers providing features such as transaction management, handling and financial reporting. It will be accessible to users with varying levels of technical expertise and will ensure seamless integration with existing banking systems.

3 functional requirement

3.1 Reservation management

- allows users to make room reservation online or through the front desk
- generate reservation certificate and send notification to guest

3.2 Room management

- Assign rooms to guests based on availability and preference
- track room status (clean, occupied, vacant) in real-time

3.3 Guest management

- maintain guest profile with personal information preference and booking history. facilitate
- guest check in and check out process

3.4 Billing and Invoicing

- generate accurate bills for room charges, additional service, and taxes.
- Accept various payment methods and generate invoice for corporate clients

4 Interface requirements

4.1 user interface

- Intuitive and user friendly for hotel staff and guest
- Accessible via web browsers, mobile device and desktop application

4.2 Integration Interface

- Integration with Payment gateway

- for secure transactions
- Integration with third-party booking platforms for seamless reservation management

5. Performance Requirement

- 5.1. Response time: The system should respond to user actions within a few seconds
- 5.2. Scalability: Handle a minimum of 1000 concurrent users during peak hours
- 5.3. Data Integrity: Ensure data consistency and accuracy across all modules

6. Design constraints

6.1 Hardware limitation

- The system should be compatible with standard hotel hardware (components, printers, POS terminals)

6.2 Software dependency

- Utilize a relational database management system (e.g., MySQL) for data storage

7. Non-functional Attributes

7.1 Security

- Implement robust authentication and authorization mechanism to protect sensitive data

7.2 Reliability

- Ensure high availability and fault tolerance to minimize system ^{down time} downtime

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7.3 Scalability

- Design the system to accommodate future growth and expansion

7.4 Portability

- Support multiple platforms and devices for user accessibility

7.5 Usability

The system shall have a user friendly interface with clear navigation

7.6 Reusability

The system shall use modular code design to facilitate future environments and maintenance

7.7 Compatibility ensure compatibility with major browsers

7.8 Data Integrity: generate accurate and consistent storage, retrieval and reconciliation of financial data

8 Preliminary Scheduling and Budget

The development of the credit card processing system is estimated to take a month with a budget of \$250,000

This includes project planning, development, testing, compliance certification and development phases