

2. Credit Card Processing

2.1 Introduction:

The purpose of this documentation 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.

= functional requirement

3.1 Reservation management

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

3.2 Room management

- Assign rooms to guests based on availability and preference
- track room status & current occupancy
- vacant in real-time

3.3 Guest management

- maintain guest profile with personal information, preference and booking history
- facilitate 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 both 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 requests within 5 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 relational database management system (e.g. MySQL) for data storage

7 Non-functional attributes

7.1 Security

- Implement robust authentication and authorization mechanisms to protect sensitive data

7.2 Reliability

- Ensure high availability and fault tolerance to minimize system downtime

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 estimate to take a month with a budget of \$250,000. This include project planning, development, testing, compliance certification and development phase.