

Software Requirements Specifications

① Hotel Management System

1) Problem Statements

- The daily requirement of Hotel involves the management of customers data, room-bookings, food-service, on-time checkins/check out's, various other tasks but
- * todays hotel management system uses the outdated software which involves problems such as
 - over-room bookings
 - delayed checkouts
 - non-hygenic food-service
 - unsafe parking due to overbookings
 - insufficient management staff.
 - improper behaviour, customer billing data & much more.

2) Scope

- to train, handle management staff
- to overcome over-bookings, delayed services,
- manage customer billing data, parking..etc
- to improve food-service, quality, hygiene, cleanliness ..etc.

3) Functional Requirements

- functional, upgraded, interactive software for bookings
- Room services include food, cloth wash/iron, cleaning services ..etc
- checkin/checkout ontime management.

- user account management (create, update, delete user data)
- Billing data (confidential to outsiders, security implementation for protection against data leaks)

ii) Non-functional Requirements

- Performance - The system ^{software} should handle multiple users at a time without any hangs, buffers or any mis-bookings
- Scalability - Software should be upgraded to the market trends, widespread services at more locations.
- Availability - Software should be available to all customers even for crowded appl software views/ users at a time.
- Security, Backup & recovery, Maintainability

All above points include the core security protections for any data leakage, required backup for recovery

3) Domain requirements

- Booking policies
- Third party integration
- Room type & features
- Industry standards

class required

- * Customer
- * Employee
- * Booking
- * Payment
- * Transportation
- * Parking
- * Amenities

* 2) Credit card Processing System

1) Introduction.

1.1) Purpose of this document
to outline the software requirements
for the credit card processing system.

1.2) Scope of this document
It includes the overall working & main
objectives of the credit card processing system.

1.3) Overview
It enables customers to make payments
using their credit cards. It will process trans-
actions, validate credit card info & provide a
secure payment gateway.

2) General Description.
The C.C. Proc. system provides general functions
like, Allows customers to make payments using their
credit cards, Validate credit card information,
process transactions securely,
provide a user-friendly interface for customers
to manage their payments.

3) Functional Requirements.

Process credit card transactions
validate credit card information
provide a secure payment gateway
generate payment receipts
store payment history

4) Interface Requirements

User-Interface

API interface

Database Interface

5) Performance Requirements

Process transactions within 2 seconds

Achieve a minimum uptime of 99.99%.

Handle a max. of 1000 transactions ^{of debit customers} per minute.

6) Design Constraints

Use of a secure payment gateway API

Compliance with PCI-DSS security standards

Use of a relational DBMS

7) Non-functional Attributes

Security

Scalability

Reliability

Usability

8) Preliminary Schedule & Budget

Development timeline = 9 months

Budget - 25 Lakhs

Classes required

Customer

Credit Card

Payment

Transaction

Software Requirement Specification(SRS)

* Library Management

1. Introduction.

1.1 Purpose of this Document.

to outline the software requirements
for the Library Management System

1.2 Scope of this Document

This document covers the functional &
non-functional requirements for the Library
Management System.

1.3 Overview

It is designed to manage the daily
operations of a library including book
cataloging, circulation, & patron management.

2. General description.

The Library Management system will provide
and efficient & user-friendly for librarians
to manage the Library's collection, track patron
information, & perform circulation tasks.

3. Functional requirements.

Book cataloging & searching

Patron registration & management

Circulation management (check-in, check-out
renewals)

Reporting & analysis

4. Interface requirements.

User-friendly web-based interface for Librarians, Mobile app for patrons to search & request books.

5. Performance requirements.

Response time: 2 second, or less for search queries.

Data storage: Capable of storing thousands of thousands of book records.

6. Design Constraints.

Compliance with library standards

Integration with existing Library systems

7. Non-functional Attributes

Security: User authentication & authorization

Usability: Intuitive interface for librarians & patrons

8. Preliminary Schedule & Budget

Development timeline: 6 months

Budget: 15 Lakhs.

Classes required for Library Management.

- * Book → represents books in the Library's collection
- * Patron → represents a library patron
- * Circulation → represents checkins, checkouts, renewals
- * Library → represents library itself, including its collection & settings.

* , Stock Maintenance System SRS

1. Introduction

1.1 Purpose of this Document

To outline the software requirements.

1.2 Scope of this Document

To cover the functional & non-functional requirements.

1.3 Overview

The stock maintenance system is used to designed to manage inventory levels, track stock movements, & perform stocktaking tasks.

2. General Description.

It will provide an efficient & user-friendly interface for warehouse staff to manage stock levels, track inventory movements, & perform stocktaking tasks.

3. Functional Requirements.

Inventory management

Stock movement tracking

Stocktaking & reporting

Alerts & notifications for low stock levels

4. Interface Requirements

User-friendly web based interface for warehouse staff

Mobile app for scanning & tracking stock movements

5. Performance Requirements.

Response time < 1 second for less for inventory queries

Data storage - capable of storing thousands of stock items.

6. Design Constraints.

Compliance with industry standards

Integration with existing stock maintenance systems.

7. Non-functional Attributes.

Security - user authentication & authorization

Usability - intuitive interface for warehouse staff

8. Preliminary schedule & Budget

Development time - 5 months

Budget - 10 Lakhs

Classes Required for Stock Maintenance System.

StockItem: represents stock item in the warehouse

StockMovement: represents a stock movement

Warehouse: represents warehouse itself, including its layout & settings.

* Passport automation.

1) Introduction

1.1 Purpose of this document

To outline the software requirements for the Passport automation System.

1.2 Scope of this DOCUMENT

It overall includes the working & main objectives of the P.A.S. It also provides a secure & efficient way for citizens to apply for & manage their passports.

1.3 Overview.

It enables citizens to apply & manage their passports online. The system will automate the process of passport application, verification & insurance.

2) General Description.

- Allows citizens to apply for passports online.
- Verify citizens info. & documents like passport, size photo,
- Automate the process of passport insurance.
- Provide a user-friendly interface for citizens to track & manage their passport application.

3) Functional Requirements.

- Allow citizens to create & manage their profiles
- Enable citizens to apply for passport online
- Verify citizens info & documents
- Automate the process of passport issuance

4) Interface Requirements.

- User interface
- API interface
- Database interface

5) Performance Requirements

Process passport applications within 24 hours

Achieve a minimum uptime of 99.99%.

Handle a max. of 1000 passport apps per day

6) Design Constraints.

Use of a specific govt. database API

Compliance with govt. security standards

Use of a relational database M.S.

7) Non-functional attributes.

Security —

Scalability

Reliability

Usability

NP

8/10/20

8) Preliminary budget & schedule

Development time - 16 months

Budget - 50 Lakhs.

classes Required

~~Citizen~~ Person

Passport

Application

Document

Payment