

# Hotel management system

## 1. Introduction: Purpose:

The purpose of the document is to outline specification and requirements for Hotel management system. It can be used to understand functional, non-functional and performance requirements for developers, testers etc...

## Scope:

Hotel management system should

- Improve operational efficiency.
- Support payment and third party booking.
- Enhance the guest experience.

## Overview:

The ~~main~~ features ~~with~~ included will be

- Reservation management
- Payment System.
- Billing and Invoicing.
- Guest profile management.

## ~~2. General description:~~

## 2. General requirements description:

- Guests to book rooms online.
- Management to generate reports.
- To manage room availability, guest details.



### 3. Functional requirements:

→ Reservation:  
User should be able to Book room to their liking.

→ Billing and Invoicing:

Payment gateway and generation of bills.

→ User and admin management:

To ~~book~~ monitor their requirements and analytics to support this.

### 4. Interface

→ User Interface:

U.I should be user friendly & smooth.

→ Analytics Interface:

To analyse customer & their preferences.

### 5. Performance

→ Response time:

→ Scalability & Data privacy:

### 6. Design constraints

→ Operational

→ Development

### 7. Non-functional requirements:

→ Security:

The data breach should not happen.

→ Scalability:

Future developers should be able to scale the system for more.



→ Compatibility.

Fast response time in payments & booking.

→ Portability:

The software should run on different OS, devices.

8. Preliminary Schedule and Budget:

Estimated duration: 6 months.

Estimated Budget: ₹30,000,00

Phases covered: Project Planning, development, testing, deployment, Preliminary planning

etc...

## 2. Library Management System:

### 1. Introduction.

#### 1.1. Purpose:

The purpose of this document is to define requirements and specifications for the development of a library management system.

#### 1.2. Scope:

→ Simplify and speed up daily library activities.

→ Provide easy access to library resources for students and staff.

#### 1.3. Overview:

It will include.

→ Book catalog management.

→ Book issue, renewal and return tracking.

→ Reporting and analytics for administrators.



2. General Description  
The Library management will provide  
→ Tools to issue, manage reservations and track overdue items.  
→ Access to reports, inventory  
→ Online access to search, reserve

3. Functional requirements.  
→ catalog management.  
To add, update and delete book records  
→ User management.  
Track borrowing history.

4. Interface requirements:

→ User Interface.

• Intuitive user-friendly interface.

→ ~~Payment~~ Integration.

Interface

Integration with barcode and payment gateways

5. Performance requirements:

→ Response time.

The system should respond in faster rate.

→ Scalability.

The system should be designed in a such way that it should be scalable in future.

6. Design constraints
- hardware constraints:  
Compatible with both desktop & mobile devices.
  - Software Dependencies:  
RDBMS, Frontend, Backend, Deployment.

7. Non-functional requirements:

→ Security

Implement secure role-based access

→ Reliability.

Available ~~should~~ in most of the time

→ Data integrity.

Ensure accurate and consistent data storage/retrieval.

8. Preliminary Schedule and Budget:

Estimated duration: 5-6 months.

Estimated Budget: ₹ 10,00,00.

Phases: Requirement analysis, development, testing, deployment.

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### 3. Credit Card Processing System (CCPS)

#### 1. Introduction.

##### 1.1 Purpose.

The purpose of this document is to define requirements and specifications for CCPS.

##### 1.2 Scope

CCPS will enable merchants, banks and payment gateways to process credit card transaction

##### 1.3 Overview.

→ Acts as an middleware blw customers and issuing banks.

#### 2. General description.

CCPS will provide

→ monitor & generate reports.

→ Accept credit card payments securely.

→ High speed and data encryption.

#### 3. Functional requirements.

→ Transaction processing.

→ Authentication & Security.

→ user management.

Interface requirements.

→ User Interface:

Intuitive user interface should be present.

→ Integration Interfaces:

compatible with card networks,  
integration with multiple gateways.

5. Performance requirements

→ Response Time:

Transaction should be under 2-3 seconds.

→ Proper reply:

If any failure, proper measures should be taken.

→ Reliability

If any critical condition, handle it with care.

6. Design constraints:

→ Hardware Limitations:

should be compatible in multiple devices

→ Development constraints:

secure audits required before deployment.

7. Non-functional requirements:

→ Security.

End to End Encryption

Role based access.



→ usability:

Simple and secure system.

→ Auditability:  
maintain detailed logs of all transactions and administrative actions.

### 8. Preliminary Schedule and Budget:

Estimated Duration: 8-10 months

Estimated Budget: ₹40,000,00.

Phases: Requirement analysis,

design, development, security testing,

compliance, deployment.

### 4. Passport Automation system (PAS)

#### 1. Introduction.

##### 1.1 Purpose.

The purpose of the document is to specify software requirements and specification for passport automation System.

##### 1.2 Scope

The PAS will provide an online platform

→ Register and create user profile.

→ Apply for new passport, renewal.

→ Upload necessary documents.



1.3 overview  
This model provides functional and non-functional requirements, constraints and system models for passport automation system.

2. Description.  
The PAS will cater to the needs of applicants, passport officers and administrative staff. The system will be user friendly and accessible to individuals.

3. Functional requirements

→ Application management.

To create new passport applications.

→ Appointment Scheduling.

To schedule appointment for verification.

→ verification and approval.

After verification with law enforcement approval will be given.

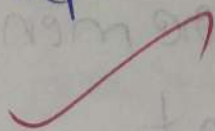
4. Interface requirements

→ User Interface.

Intuitive user interface for users and officers

→ Integration Interface.

Integration with postal, police departments.





### 5. Performance requirements.

→ Response Time.

The System should respond in minimal time.

→ Data Integrity.

Data privacy and should be important.

### 6. Design constraints

→ Hardware Limitations:

The System should run on different OS, devices.

→ Software dependencies:

RDBMS or NoSQL, Frontend, Backend, Deployment.

### 7. Non-functional requirements.

→ Security

Strong authentication for users and officers.

→ ~~Reliability~~ Reliability.

minimize downtime & high availability

→ ~~Usability~~ Usability.

The experience should be smooth and user satisfaction is needed.

### 8. Preliminary Budget & Schedule

Estimated duration: 8 months.

Estimated Budget: ₹ 25,000,00.

Phases covered: Design, Requirement specification, Deployment,



## Stock maintenance system.

### 1. Introduction.

#### 1.1. Purpose of this Document:

The purpose of this document is to define the requirements & specification for stock maintenance system.

#### 1.2 Scope overview.

The following features should be included

→ stock inflow and outflow.

→ operational efficiency.

#### 1.3 ~~Overview~~ Scope

→ Automate inventory & stock management.

→ Purchases and sales recording.

→ Supplier/customer management.

### 2. General description:

The system will be used by store managers, staff and administrators.

The system will provide real time stock updates & reports.

### 3. Functional requirements.

→ Stock Management.

Add, update and delete stock items.

→ Purchase & sales Management.

Generate purchase & sales reports.

→ Analytics

Using reports useful dashboard can be developed.



#### 4. Interface requirements.

→ User interface  
Intuitive user Interface

→ Integration Interface  
Integration with accounting systems.

#### 5. Performance requirements:

→ Data Accuracy

The portfolio should be updated fastly and accurately

→ Response Time.

If any failure occurs proper measures should be taken.

#### 6. Design Constraints:

→ Hardware Limitation.

Should be compatible with printers etc.

→ Software dependencies.

RDBMS or NoSQL database.

Frontend, Backend, deployment.

#### 7. Non-functional requirements:

→ Security

• Role-based authentication.

→ Reliability

Ensure high availability backup and recovery mechanisms.

→ Compatibility:

compatible with major operating systems



10. Imaginary Budget and schedule

Estimated Duration: 8 months  
Estimated Cost: ₹ 30,000.00

Estimated cost: ₹ 30,000.00

Phases covered: Design, Deployment, Requirement specification.

## Requirement specification