4. Interface requirements (Reservations, authorisation, payment)
4.1 User interface : Interactive features rich platform
4.2 API integration : Third party party systems interface; E.g payment
4.3 Data Exchange : JSON for data transfer b/w different modules.

5. Performance Req :
5.1 Response time : Low response time, maximum upto 1 to 2 seconds
5.2 Concurrent user : Large number of user handling simultaneously
5.3 Data handling : Efficient handling for thousands of records. (10,000)

6. Design Constraints
6.1 Tech Stack : Use specified frame works (React, NodeJs).
6.2 Database : Use Relational database (SQL)

7. Non-functional attributes
7.1 Compatibility : Competible for all operating systems (Windows / Linux / MAC)
7.2 Scalability : for future expansion
7.3 Reliability : High uptime (99%)

8. Preliminary schedule & budget
8.1 Duration : 6 months
8.2 Cost : ₹ 10,00,000

Page No.

Teacher's Sign / Remarks

classmate
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LAB-1

* SRS document for Hotel management System

1. Introduction

1.1 Purpose: This document outlines for hotel management system, outlining guidelines for developers, mangers and other stakeholder.

1.2 Scope: This document covers the overall functionality of the hotel management system and its goals and values it offers.
It also includes cost and estimates of times for the project.

1.3 Overview: The HMS is designed to automate and streamline hotel operations including reservations, checkins, billings and customer relationship management

2. General Description
The HMS will assist hotel staff and guests featuring key user roles such as front desk personnel, managers and guests. Key features include room booking, billing, inventory and management.

3. Functional Requirements

3.1 User Login / Registration: Secure account creation and login.

3.2 Room booking: Search and book rooms on availability

3.3 Checkin/checkout: Automated checkin / checkout.

3.4 Billing system: Receipt generation

3.5 Review: Customer reviews

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* SRS for credit card system.

1. Introduction

1.1 Purpose : Specifies requirements for a credit card system for secure authorisation and transaction through credit cards.

1.2 Scope : Manage transaction b/w customer, merchants and banks including authorisation, fraud detection

1.3 Overview : CCRS will streamline transaction while allowing for real time data management & reporting.

2 General Description : Etc.

System will help merchants and cardholders for with transactions processing and comply with bank regulation. Can handle different types of cards

3. Functional Requirements

~~3.1 User login/Registration & Secure authorisation~~

3.1 Transaction authorisation (card/user validity)

3.2 Transaction processing.

3.3 Fraud detection

3.4 Reporting & history

4 Interface requirement

4.1 API integration : for communication b/w different banking networks and UI.

5 Performance Requirement

Response time : at most 1 second

Maximum errors : 0

6 Design Constraints
6.1 Database : using NoSQL (Mongodb)
6.2 Encryption/decryption Algorithm support

7 Non-functional attribute
7.1 Data Integrity
7.2 Security : High level encryption
7.3 Scalability : High transaction volume

8 Preliminary schedule & budget
8.1 Duration estimate : 12 months
Cost estimate : ₹ 20,00,000

LAB-2

Date 30/09/24
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* SRS for Library Management System (LMS)

1. Introduction

1.1 Purpose : This document specifies details about the LMS that facilitates the management for books catalogue, membership and transaction

1.2 Scope : A LMS allows user to borrow, return search & reserve books. The LMS will facilitate efficient mangent of library operations including book borrowing

1.3 Overview : The LMS is designed to streamline library proces, ensuring easy track of library resources and efficient mangent.

2. General Description

The LMS will help streamline the mangement of book inventory, member information and the issuance and returns of books. Users will be able to search for books, check their availability, and manage borrowing. Administrator will have full access to manage members and books.

3. functional requirements

3.1 Book Management : Add new books, delete books, track book availability

3.2 Member Management : Register a new member, delete an existing ~~num~~ member and assign an unique membership id to each member

3.3 Issue & return books : Librarians issue book, members can return books. The system calculates overdue fines automatically.

PTO

3.4 Search functionality: Users can search for books by title, author, ISBN or genre.

4 Interface Requirements

4.1 Software Interfaces: The LMS will communicate with an internal database to store all information related to books, members and transactions.

4.2 User Interface: ① Login screen (username & password)
② Book search interface
③ Issue / return interface
④ Member registration interface.

5 Performance Requirements

- The system should be able to handle upto 10000 concurrent users.
- The response time for a search query should not exceed 3 seconds.
- The system should be able to manage upto 1,00,000 books records without performance degradation
- Fine calculation for overdue books should occur in real time.

6 Design Constraint

- The system must be implemented using a relational database such as MySQL.
- The interface should be built using web tech to ensure cross-platform compatibility.
- The system must support scalability.

PTO

7. Non-functional attributes
- Security : User authorization.
- Reliability : Uptime of about 99.99%.
- Scalability : Scalable without loss in performance.

8. Preliminary schedule & Budget
- Development time : The project will take approximately and months from the initial design phase to final deployment.
- Estimated cost : The total cost for development, including hardware & software is estimated at ₹ 5000000.

classmate
Date
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* SRS document for Stock Maintenance

1 Introduction

1.1 Purpose: This document describles the requirement for the Stock Maintenance System (SMS), a software solution for tracking inventory, managing orders, and monitoring stock levels in warehouse or retail outlets.

1.2 Scope: The SMS will automate inventory management, including stock entry, updates, order tracking, and low stock alerts.

1.3 overview: The system will enable users to manage stock efficiently through features like realtime stock updates, Supplier management, order tracking & report generation.

2. General Description

The SMS is designed to provide real time information on stock levels, orders and suppliers. It allows users to manage stock efficiently by providing a user friendly environment to input, update and monitor stock data.

3. Functional Requirements

3.1 Stock Management: Add & update stock with product details.
- Track stock availability and generate low stock alerts.

3.2 Order & supplier Mangement: Place, track & manage orders.
- Manage supplier information

3.3. Report generator: generate report on stocks usage, levels & suppliers efficiently.

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4. Interface Requirements:

4.1 User Interface: ① login
② Stock Management
③ order & supplier Management

5 Performance Requirements

- The system should handle upto 20,000 transactions
- low stock alerts and updates must occur in real time.

6 Design Constraints

- The system will use a relational database and be compatible with mobile devices.
- Secure communication protocols (eg. HTTPS) will ensure data protection.

7 Non-functional attributes

- Security: Access control for authorised users.
- Scalability: Supports increased stock levels & users
- Reliability: 99.9% uptime.

8. Preliminary Schedule & Budget:

- Development time: estimated at 6 months.
- Budget: ₹80,00,000 for design, development & deployment

* SRS document for Passport automation System (PAS)

① Introduction :

1.1 Purpose : The purpose of this document is to outline the requirements for the PAS. The system will automate the process of passport application, verification & issuance, reducing manual intervention & streamlining the workflow for the booth applicants and officials

1.2 Scope : PAS will manage the complete passport application lifecycle, from submission & verification to issuance and renewal. It will also provide realtime status updates track application progress and integrate with various government databases.

1.3 Overview : PAS will allow users to submit application online, verify details, upload required document and track the status of application. Government official will have tools for verifying information, managing the approval process of issuing proposals

② General Description

PAS is a webpage system that automates the traditional paper based process. It interacts with national identification, address verification and immigration database to streamline pass validation process. The system is designed to replace the manual handling of passport application

③ Functional

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④ Int

App

(3) Functional Requirements

3.1 Application Management: Application can create accounts, fill out passport applications and upload documents.

3.2 Document verification: The system will validate & update documents against national database
- Officials will manually check flagged documents

3.3 Passport Issuance: After approval, the system generates a passport for printing and applicants are informed of the issuance.
- System will also handle all passport renewal and cancellations.

3.4 Status Tracking & Notification: Applicants can check the status of their application in realtime.
- Email notification ~~can be~~ will be sent at key stages.

(4) Interface Requirements

- Application portal: Allows applicants to register, fill out applications, upload documents and track status.
- official portal: Enables government officials to remove applications. perform verification & approve/reject requests.
- Admin portal: Provides system administrators with the ability to manage user roles, oversee system performance & generate reports.

(5) Performance Requirements
- The system should support upto 10 000 simultaneous applications.
- Realtime tracking and notification features must update within 5 seconds.
- The system should issue within 1 business day after application approval.

(6) Design constraints
- The system must be integrated with national database for identity verification and criminal background checks
- Secure communications protocols (HTTPS) & encryption of sensitive data are mendatory.

(7) Non-functional requirement
Security: System must ensure data confidentiality by restricting access to authorized users.
Scalability: PAS should accomodate future growth
Reliability: The system must have 99.9% uptime

(8) Preliminary schedule & Budget:
Development time: 8 months
Development cost: ₹ 50 000 000 for designing, development, testing & deployment.