

Software requirement specification (SRS)

1) Purpose of document

2) Description of development cost & time req

3) General description :

- 1) user
- 2) user characteristic
- 3) features
- 4) benefits
- 5) its importance

4) function requirements :

- 1) calculation
- 2) data processing

5) Interface Requirements :

6) Performance requirements

7) Design Constraints : Limitation

8) Non-functional etc

- 1) security
- 2) Portability
- 3) Reliability
- 4) Reusability
- 5) Application compatibility
- 6) Data integrity
- 7) Scalability
- 8) Capabilities

9) Preliminary schedule & budget

Hotel Management System (SR)

Overview:-

In hotel management system there will be interface so user can login by input their username, password and telephone no. OTP. Next user can reach destination and get details all about the hotel near destination and user can select hotel and add to books the hotel

Functional Requirements

Hotel Management System

1) Registration
- user inputs username, password, mobile no.

2) Logging in

- user can now access data if username is correct
- user can now access data if username is correct

3) Reservations and booking: The system allows user to confirm or cancel booking

4) Manager Access: Manager can access and check and generate financial report

5) Guest Access: Allows the room for the customers

6) Payment method and prices: Can be card, VPI

Non-Functional Requirements

1) Logging time: The time required ~~between~~ to user

2) Security requirements: Secure network should be established to system

3) Scalability requirements: The system should be accessible to many user

4) Reliability: Easy to use and should have less bugs

5) App compatibility requirements: Should be compatible to all OS

6) Response time: Should be less

7) Booking time

8

Project Estimation Cost

LOC Approx: 72000 LOC

Amount per LOC: = 20\$

Total Amt -> 720000

Gift.

Credit Card Management System (SR)

Overview:- In credit card management system the ~~customer~~ system scans the card to display the details to customer and customer can see the details and history.

1) General description:- 1) Customer requirement is to Deposit withdrawal of money

2) Customer can track his transaction history and can also track his CIBIL score and uninitiated or unknown transactions

Functional Requirements:

1) Card scanning: To check whether the card is valid or not

2) ATN PIN:

To get the details of card the customer needs to remember this PIN for further transaction

3) Language selection

4) Check balance, withdraw money, deposit, generate OTP are the customer requirements

5) Bank Manager Access: All the transaction and login details will be uploaded to bank database

6) Transaction receipt: After deposit, withdrawal a receipt should be provided to customer.

Non functional requirement:

1) Logging time: The time for user to access the card details also valid pin ~~unauthorized~~

2) Security Requirements: Unknown transactions should be notified to customer

3) Scalability requirements: Should be available to all

4) Reliability: the instructions should be simple and

- Should have less bugs
- Uninterrupted transaction

5) Should have less response time

Library Management System

Overview: The user can login and use the service and can only access purchased books. The user can buy or rent new books.

General description: 1) User can manage books in their inventory
2) User can also sell books in library
3) User can also sell books in library

Methods:

Classes: 1) User → selectBook(), name(), libraryID()
2) Books → Page(), Title(), volume(), Bookname(), Author()

3) Author → AuthorDetails()

4) Payment → selectPayment()

5) selectCategory → BookCategory()

6) Renters purchase → Payment(), Rent(), Purchase()

7) Library Database Access → Username()

8) Library staff → Library ID()

9) Library staff

Functional Requirements: 1) Registration: User has to scan his ID to system for further authentication

2) Authentication:

→ Access books: User can be able get his required books and can also select volumes and editions

3) Library Management: The user ID, libID and books that have been purchased will be stored to database

4) Database

Recommendation: The system should recommend user new books depending on the topic of interest

5) Membership plan: User can purchase the monthly or weekly or yearly membership

6) Catalog: The book will be arranged according to the details

Interface Requirements:

Software Interface: software uses APIs to communicate with other systems:

User Interface: User must make be accessible with different plans with different number of Access fee & resource. A web interface for library management system manage member data, history section to find books,

communication interface: SMS / Email / integration for registration and payment confirmation.

Non-functional requirements:

1) logging time of the access time:

2) security requirements: Like unauthorized access of books by user and unwanted access should be avoided and handled

3) scalability requirements: All books should be available to other all users i.e after payment.

4) Reliability: user should be able to select required books easily

5) Should have less response time

6) App compatibility

Project estimation:

1) Books cost: 1000000

2) Programme cost: 100 per LOC, 130000 LOC

total cost → 1300000 \$

Software

overall cost: 1000000 + 1300000

→ 1,400,000 \$

1.4m \$

Stock Maintenance System

Overview: This system helps user to buy, sell stocks and also displays the stock current price, profit and loss. The following system also display a graph Analysis of stocks i.e in terms of money.

General description: 1) App system users.

2) Stocks sales

3) Purchase, sell stocks

Classes: 1) User - ~~username()~~, MobileNo(), ~~password()~~ OTP()
2) Login - LoginID, Password()

3) Stocks - Buy(), Sell(), CurrentPrice()

4) Companies - CompanyName(), StockPrice()

5) GraphAnalysis - RealTimeGraph(), Detailed Analysis()

6) TradeDetails - Account(), CardNo(), Balance()

7) Payment - UPI(), Card(), Special code(), GiftCard()

Functional requirements:-

1) Registration:- user can ~~enter~~ enter his CustomerID and ~~password~~ password for authentication.

2) Login: user can see the details i.e profits, loss and price of stocks and selling price including GST

3) Stock Database Access: can be accessed by company manager to track transaction and stock details and username.

4) Recommended stock:- The stocks will be recommended to user to purchase

5) Search stocks:-

Interface requirements

The details of the query system must be displayed as playcard for each stock and must be changing every second.

Performance requirements

The details of the stock from the exchange by the query system must have a response time of 0.1 milli seconds. It must operate on 2GB Memory & must have minimal error rate

Design constraint

It must use hashmaps & must have an O(n) time search sequence, it must be able to run on old system

Non-functional attributes

It must use algorithm encryption to transfer the details of the system from relationships manager & user

Preliminary schedule & budget

It must be completed in 7 months & 1 million dollars is allocated to project

Passport automation

Introduction

Purpose

The purpose of this document is to outline the functional and non-functional requirements for the passport automation system.

Scope

This system will automate the entire process of applying for and issuing passports.

Overview

The system will provide a user-friendly platform for citizens to apply for passports, track their application status, schedule appointments for interviews or document submission.

General Description

To automate and streamline passport application process, reducing the manual workload for passport offices & improving the user experience for application users.

Applicants
passport office

Functional requirements

User Authentication : secure login system

- Account verification
- Application tracking
- Passport issuance

4.1 Interface requirements

- User Interface : web & mobile interface
- Database Interface
- Office Interface : for verification of documents

Performance requirements

- Response time : Application submission should occur within 3 seconds
- Scalability : support up to 1 million.

Design constraints

- Technology : Backend (Java / Springboot)
- Frontend (React), Database (MongoDB)

Non-functional requirements

- Security
- Reliability
- Portability
- Data integrity

Preliminary Schedule & Budget

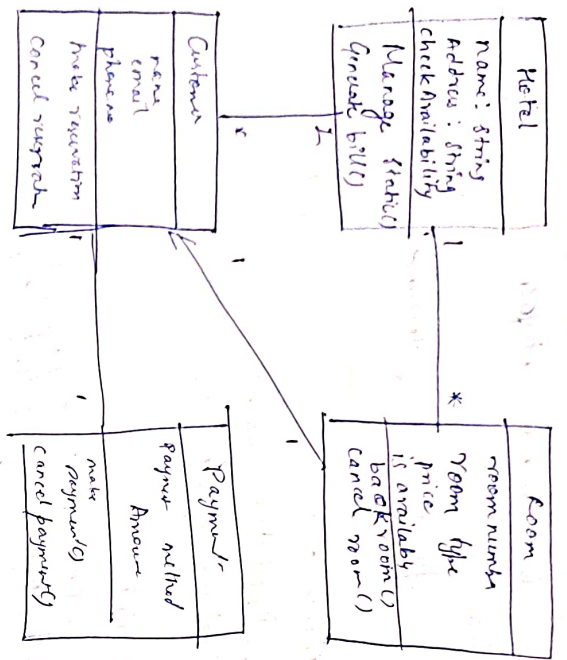
Schedule : Requirements specification

Developer : 4 weeks
Tests : 4 weeks
Total : 6 months

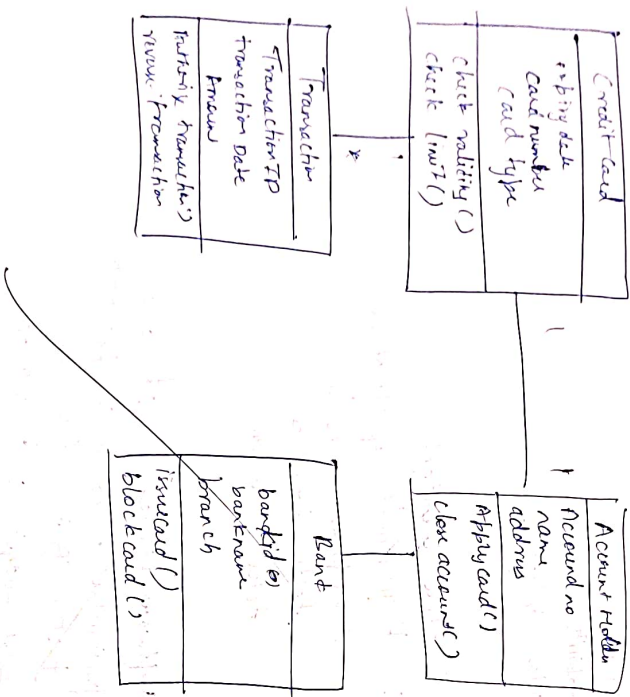
Budget :

Software Development : \$250,000
Infrastructure & hosting : \$60,000
Tests QA : \$40,000
Total budget : \$350,000

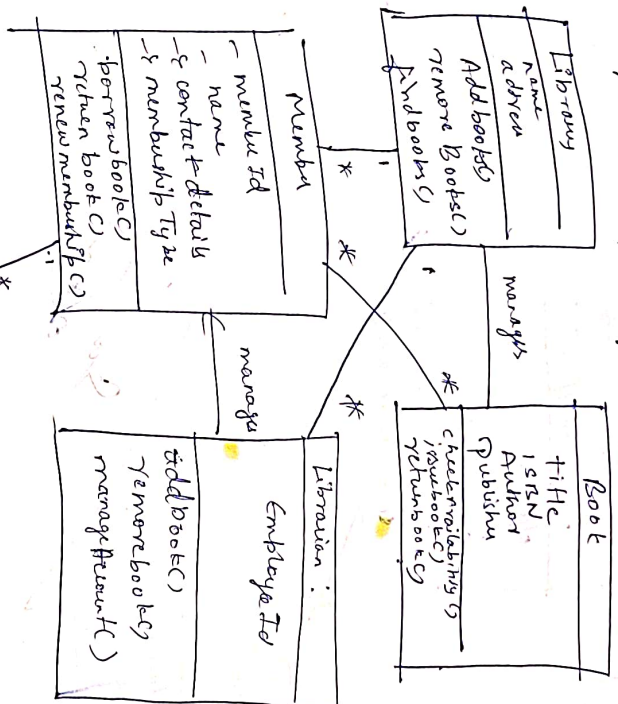
Hotel Management



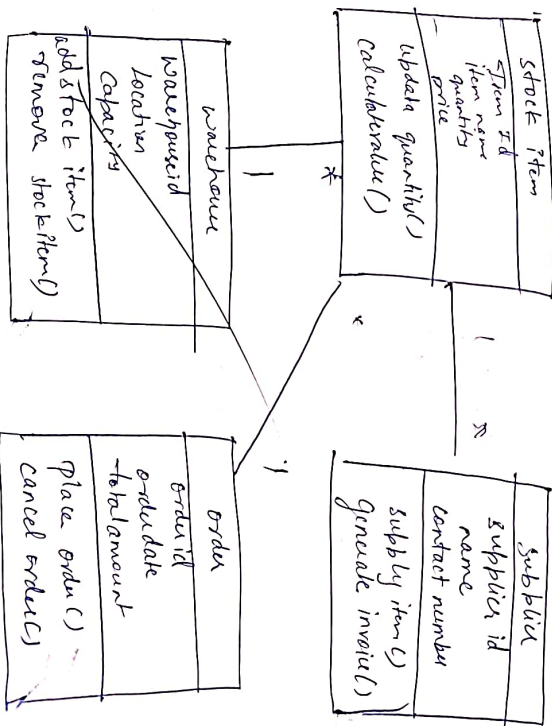
2) Credit Card System



Library Management System



Stock Maintenance System



Passport Automation system

Applicant
ApplicantId
name
dob
nationality
apply for passport() track application()

Verification officer
officerId
name
department
verify documents() schedule interview()

Application
ApplicationId
application date
status
submit application() update status()

See
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