Lab-01

* Generate the SRS document for
1) Hotel Management System

1. Introduction :→

1.1 Purpose : The purpose of this document is to define the requirements of Hotel Management System, outlining the functionalities required for efficient hotel operations such as, reservations, check-in/check-out, billing & guest management.

1.2 Scope : The system will provide to both staff & customers, manager, room booking, customer profiles & billings. It will optimize day-to-day hotel operations, reduce manual labor, & provide guests with seamless experience.

1.3 Overview : It will include modules for hotel operations, room management, housekeeping & billing. It will be accessible through desktop or mobile devices ensuring ease of use for hotel employees.

2. General Description :→

2.1 Product perspective: The system integrates with existing hotel infrastructures & online booking platforms, providing a centralized system for managing hotel operations.

2.2 User Characteristics: User will include: hotel staff & customer. The interface will be user-friendly for non-technical users.

2.3 System Constraints: The system must be available 24/7, support multiple users, & handle high traffic during peak seasons.

3. Functional Requirements :→
* Room booking & Reservation management
* Customer check-in/check-out process.
* Invoice generation & billing.
* Housekeeping status tracking.
* Online booking integration.

4. Interface Requirements:→
* GUI for hotel staff
* Web-based interface for customers
* Integration with external booking platforms.

5. Performance Requirements:
* Must handle atleast 500 customers.
* Response time for room availability should be less than 2 seconds.

6. Design Constraints:
* Must be compatible with existing hotel hardware
* The software should be modular to allow future feature expansion.

7. Non- functional Attributes:
* Security
* Scalability
* Reliability.

8. Preliminary Schedule & Budget:
* Development Timeline : 6 months
* Estimated Budget : $100000

2) Credit Card Processing System

1. Introduction :

1.1 Purpose: The purpose is to outline the functional & non-functional requirements for a secure credit-card processing system, which facilitates transaction b/w merchant & cardholders.

1.2 Scope: The system will support multiple card type & offers real-time processing, fraud detection & reporting tools. It is designed for integration with e-commerce platforms & point-of-sale systems.

1.3 Overview: This will ensure smooth payment transaction for both online & in-person purchases. The system will include authorization, settlement & reporting of transactions, ensuring compliance with payment industry standards.

2. General Description:

2.1 Product Perspective: It works as an intermediatory between the merchant & credit card company.

2.2 User characteristics: User will includes merchants cardholder & system administrators. The system will be easy to use for both technical & non-technical staff.

2.3 System Constraints: It must meet PCI DSS & ensure secure transaction handling.

3. Functional Requirements:

* Card authorization
* Payment gateway integration
* Fraud detection & prevention
* Transaction reporting & auditing
* Chargeback & refund handling.

4. Interface Requirements:

* Web API
* Point-of-Sale (POS) slw interface.

5. Performance Requirements

* Must process transaction in under 3 seconds.
* Support for upto 1000 transaction per sec during peak times.

6. Design Constraints:

* Must comply with PCI DSS standards for security
* The system must be designed for easy integration with 3rd party merchant system.

7. Non-Functional Attributes:

* Security
* Reliability
* Scalability.

8. Preliminary Schedule & Budget:

* Development Timeline: 4 months
* Estimated Budget: $1000000.

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Lab - 02
Generate SRS for
3) Library Management System

1. Introduction :

1.1 Purpose : The purpose of Library Management System is to define the requirement of Library Management system, outlining the functionalities such as borrowing books, lending books etc.

1.2 Scope : The system will support for both user & ~~for~~ library admin. It will update day-to-day book details. so that user can know what books are available for them to read.

1.3 Overview : This system will include seperate modules for adding books, removing books, borrowing & lending books from the library. The system is available both in Mobile (or) Desktop. so, that user can use it efficiently.

2. General Description →

2.1 Product Perspective :- It works as an intermediatory between lab admin & user. to perform operations like adding & removing books to library application, lending & borrowing books for the application.

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2.2 User Characteristics :- Users will include borrowing books from library. The system will be user-friendly for both technical & non-technical users.

2.3 System constraints: The system must support for multiple users.

3. Functional requirements :

* Adding Books, Search books
* User sign in / sign-out
* Removing Books
* Lending books
* Borrowing books.

4. Interface Requirements:

* GUI for lab admin
* Web-based interface for users.

5. Performance Requirements :

* Must handle 150 users.
* Library admin must check available & unavailable books in library.

6. Design Constraints :

* The system must be compatible with all users.
* System should be user friendly.

7. Non-functional Attributes :

* Efficiency.
* Portability
* Security.

8. Preliminary Schedule & budget:
Development timeline: 4 months
Estimated budget: $ 80000

4. Stock Maintainance System:→

1. Introduction:

1.1 Purpose: The purpose of stock maintainance system is to provide the requirements for a stock maintainance system that helps business manages ~~in every~~ inventory levels, track stock movement & generate restocking alerts.

1.2 Scope: The system will be used by stock store managers & warehouse personnel to ensure efficient inventory tracking & timely restocking. It will also generates reports to optimize stock management across multiple locations.

1.3 Overview: This will have modules for inventory tracking, restock alerts, vendor management and reporting. It will be accessible through desktop & mobiles.

2. General Description →

2.1 Product Perspective: The system will integrate with existing warehouse management systems to keep track of stock levels & movements in real-time.

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2.2 User Characteristics : Users will include warehouse, store managers & suppliers.

2.3 System Constraints : The system should be operational 24/7 & handle inventory across multiple locations.

3. Functional Requirements :

* Inventory tracking item,
* Restocking notifications when inventory fails
* Vendor management for ordering & supply tracking
* Reporting on stock levels, turnover & shortages.

4. Interface Requirements :

* Web based interface for store managers.
* Integration with barcode scanners
* API for integration.

5. Performance Requirements :

* Must handle 10000 entries.
* Must process stock movement transaction under 3 seconds.

6. Design Constraints :

* Must comply with company's hardware.
* Designed for easy integration with 3rd party ERP systems.

7. Non-Functional Attributes :

* Security
* Scalability
* Reliability

8. Preliminary Schedule & Budget:
Development timeline: 5 months
Estimated Budget: 100000

5. Passport Automation System

1. Introduction

1.1 Purpose: The purpose of this document is to define the requirements of Passport automation system that helps streamline passport application process including application submission, tracking & appointment scheduling.

1.2 Scope: The scope of this is to provide the applicants, passport office staff, & officers in processing passport requests and reawals.

1.3 Overview: This will consist of modules for application submission, verification, appointment scheduling, passport issuance, & tracking.

2. General Description:

2.1 Product perspective:- This system will integrate with government databases and boimetric verification system to automate passport processing.

2.2 User characteristics: Users will include passport applicants, governments officials &

system administrators. The interface will be simple enough for application.

2.3 System Constraints:- The system must support secure online submission and tracking for passport applications.

3. Functional Requirements:

* Online Application submission & progress processing.
* Bio-metric for verification.
* Appointment scheduling
* Application status checking.

4. Interface Requirements:

* Web-based interface for applicants.
* Administrative platform
* Integration with payment gateway.

5. ~~Performance Requirements~~ Design Constraints:

* Must comply with government security.
* Modular design for easy use.

~~6. Design Constraints:~~

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6. Performance Requirements:

* Must process 10000 applications annually.
* Application status updates should be available in real-time.

7. Non-Functional Attributes:

* Reliability
* Security
* Scalability

8. Preliminary Schedule & Budget:

Development Timeline: 7 months

Estimated Budget: 100000.

25/9/24