1) Software requirment specification for Hotel management. ①

1) Introduction :-

1.1 Purpose - The purpose of this document is to define the requirments for a Hotel Managment system, outlining the functionalities required for efficient hotel opreations such as reserving, check-in/ check-out, billing and guest management.

1.2 Scope :- The system will cater to both hotel staff and customers, Managing room bookings, customer profiles, billing and staff Management. This will optimize day-to-day hotel opreations, reduce manual labor, & providing guest with seamless exprience.

1.3 overview - The Hotel management system will include modules for front desk opreations, room management, customer relationship management, housekeeping and billing.

2) General Description :-

2.1 product perspective :- The system integrates with existing hotel infrastructure and online booking platforms providing a centerlized system for managing hotel opreations

2.2 User characterstics :- User will include hotel staff. The interface will be user-friendly for non-techical users.

2.3 system constraints :- The system must available 24/7, support multiple users, and handle high Trafic during peak seasons

3) Functional Requirments :-

* Room booking and reservation management.
* Customer check-in / check-out process.
* Invoice generation and billing.
* Housekeeping status tracking
* Customer profile and history management
* Online booking integration.

) Interface requirments :-

* graphic User Interface (GUI) for hotel staff.
* Web-based interface for customers.
* Integration with external booking platforms.

) Performance requirments :-

* Must handle atleast 500 concurrent users
* Response time for room availability should be less 2 Seconds.

⑥ Design constrains

* Must be compatiable with existing hotel hardware

* The software should be module to allow future feature expansions

3) Non-functional Attributes :-
* Security - Secure data handling with encryption for sensitive data.
* Scalability → must be able to scale across multiple hold branches.
* Reability → 99.9 % uptime.

(2) Create preliminary Schedule and Budget :-
* Development Timeline → 6 months
* Estimated Budget → $100,000 for initial setup and deployment

(3) Software Requirments specification for credit card processing

(1) Introduction

1.1 purpose - The purpose of this Document is to outline the functional and non-functional requirments for a secure credit card processing system, which facilitates transcation between merchants and cardholders.

1.2 Scope :- The system will support multiple car types and offer real time processing and in person purchases.

1.3 Overviews - The credit card processing system will ensure smooth payment transcation for both online and in person purchase.

(2) General Description →

2.1 product perspective :- The system will work as an intermediary btw the merchant and the credit card company, securely processing and verifying payments.

2.2 User characters :- User will include merchants, cardholders and system administrantors.

2.3 system constrains → It must and per PCI DSS and ensure secure Transcation handling.

(3) functional Requirments →
* Card authorization.
* Payment gateway integration
* Fraud detection & prevention
* Transcation reporting and auditing
* chargeback & refund handling

(4) Interface requirments -
* Web API for Integration with e-commerece platforms
* point of sale s/w interface for Merchants.

(5) Performance Requirments -
* Must process transaction in under 3 Seconds
* Support for upto 1000 Transcation per Second during peak hours

(6) Design constaints -
* must comply with PCI DSS standards for Security
* The system must be designed for easy integration with Third-party merchant systems.

(7) Non-functional Attributes -
* Security - End-to-end encryption & tokenization of credit card information
* Reliability - 99.999% uptime to ensure availability
* Scalability - Must be able to handle high transaction volumes across multiple Merchants

(8) Preliminary Schedule & Budget →
* Development Timeline - 9 Months.
* Estimated Budget - $250,000 for the initial development phase.

LAB - II

① Generate the SRS
1. Library Management system
2. stock maintenance system
3. passport Automation system

① Library Management system →

(1) Introduction →

1.1 purpose → The purpose of this document is to define the requirements for a library Management system outlining the functionalities required for efficient Library Management system such as researching Books, adding the books details, providing library cards, entering student details and faculties details

1.2 scope → The system will be both library staff and students to manage Entered Time and leaving Time, no of books taken by students, and date and starting date of book taken, no of book copies in the library. This will optimize day to day ~~hotel~~ library operations ~~etc~~ etc.

1.3 overview → Library management system will included Modules for front desk operations, book management, student relationship management, ~~customer~~ staff relationship management, entries of Books, Intime and outtime.

(2) General discription →

2.1 product perspective → system will integrated with existing library infastructure and it act a intermediate between ~~customer~~ library staff and students for ~~begin~~ taking ebook from library, adding details of time in time and out time of the library.

2.2 user characters →
* ~~student~~ user will be instructed library staff, students and system admin
- tions. The interface will be user-friendly.

2.3 system constraints → for library management system will be available
* 24/7, support multiple student and it will hand all entries done by student

(3) Functional requirment
* Ability to search for book in the library by title, author and ISBN.
* check out the and Return the all books
* Ability to display list of the book present in the library
* user can register, login & manage their profile, with role base access
* Librarians can add, edit or delete book entries & users can search books by various criteria and system calculates fines for overdue books gallon

(5)

(5) Interface Required →
* graphic user Interface for library staff.
* web-based interface for library staff

(6)

(1) performance Requirements →
* It must handle atleast all students present in the college
* Response of availability of the book will be within a Seconds.
* It must hand all staff present in the library

(6) Non functional Attributes →
(1) Security - Secure data handling with encryption for Sensitive Data
(2) Scalability - s must be able to scale across all multiple branches of the college.

(7) Design constraints →
* Must be compatable with existing library hardware, barcode scanning sys.
* Modular design to allow easy future updates for digital addedon Managements

(8) Preliminary Schedule & Budget
* Development Timeline - 5 Months
* Estimated Budget - $80,000

(2) Stock Maintenance system

(1) Introduction →
1.1 purpose → purpose of this document is to outline the requirements for a stock maintance system that helps business manage inventory levels, track stock movement and generate restocking alerts.
1.2 scope - the system will be used by store managers and warehouse personel to ensure efficient inventory tracking and timely restocking.
1.3 overview - the stock maintenance system will have modules for inventory Tracking, vendor management.

(2) general discription →
2.1 product perceptive - The system will integrate with existing warehouse management system to keep Track of stock levels and movements in real-time
2.2 user characterstics - users will include warehouse staff, store managers and suppliers
2.3 system constraints - system should be operational 24/7 & handle Inventory across multiple locations

(3) Functional Requirments -
* Inventory tracking by item, SKUs & locations
* Restocking notifications when inventory falls below Threshold value
* Reporting on stock values, turnover, and shortages
* Vendor managements for ordering and supply Tracking

(4) Interface require

* Web based interface for stock Manager
* API for Third party warehouse system
* Integration with barcode scanner for stock movement.

(5) Performance Requirements →

* Must handle 10,000 entries
* Stock Transiation within 5 Seconds It will be shas

(6) Design conchains →

* Must comply with the company's Hlw Interface
* Designed for easy integration with 3rd party ERP system

(7) Non function Requirments →

* Security - Data will be security and restricted access the Data
* Scalability - ~~table~~ capable to handle multi-locations warehouses
* Reability - 99.9% uptime contain Imformation about stock updates

(8) preliminary Schedule and Budget →

* Development time line - 7 months
* Estimated Budget - $ 100,00

(3) Passport Automation system -

(1) Introduction -

1.1 - purpose - The purpose of this document is to define the requirment for passport Automation system. This system will help streamline passport application process including applications, Submission, tracking and appoinment scheduling

1.2 Scope - The system will support applicants, passport office staff and immigration officers in processing passport request and renewals.

1.3 Overview → The passport Automation system will consist of modules for application, submission verification, appointment scheduling, passport issuance and Tracking

(2) general discription

2.1 product perspective → The system will Integrate with goverment database and biometric verification system to automate passport processing

2.2 User characterstic → User will include passport applicants, goverments offricals & system administrators. The interfaces will be simple enough for applications to complete without technical support

2.3 system constraints → The system must support Secure online Submission and Tracking for passport applications

(3) Functional Requirment →

* online application submission and payment processing
* Bio metric verification integration
* Appointment scheduling for in-person verification
* Application status checking / tracking for applications
* Reporting Applications statistics

(4) Interface Requirments →

* web-based interface for applicants
* Administrative portal for passport office staff
* Integration with payment gateway for fee processing

(5) Performance Requirment →

* Must process 100,000 application annually
* Application status updates should be available in real time.

(6) Design constraints →

* Must comply with government Security & Data privacy regulations
* Modular design for easy future upgrades & feature additions

(7) Non functional requirments →

Security - end to end encryption for sensitive data
Scalability - scalable across multiple regional passport additions
Reliability - 99.99% uptime for continuous operations

(8) preliminary Schedule and Budget →

Development time-line - 8 Months
Estimated Budget - $150,000