SOFTWARE REQUIREMENT SPECIFICATION

FOR

AIRLINE RESERVATION SYSTEM

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AIRLINE RESERVATION SYSTEM

1. PROBLEM DEFINITION

Ticket reservation system of for airlines has to be developed.

1. The system developer should contain the following features
2. Search for information about the flight by means of flight members and destination
3. While displaying information about the flight it has to be provide availability of seats.
4. While reserving ticket the system obtain following information from the user

   Passenger Name, Sex, Age, Address.

   Credit Card Number, Bank Name.

   Flight number, Flight name, Date of journey and number of tickets to be booked.
5. Based on the availability of tickets the ticket has to be issued the ticket issued should contest the following information ticket number flight number, flight name and date of journey, number of passengers, edge and departure time
6. Cancellation of booked ticket should be available

2. SRS document for airline reservation system

2.1 INTRODUCTION

2.1.1 Purpose

- ✓ The purpose of this Sri is to be described the requirement involved in developing airline reservation system (ARS).
- ✓ The Intended audience is any person who wants to reserve or cancel ticket or to check the availability of airline ticket.

2.1.2 Scope

- ➢ The product is tilted airline reservation system (ARS).
- ➢ The product will perform the following task
  - ✓ The software that is being developed can be used to check the availability of the flight tickets of the specified flight, destination and date of journey
  - ✓ If the ticket are available to the users needs and specification, then the software provides facility to book the ticket.

- ✓ The passengers want to cancel the ticket, he can use the cancellation model of the airline reservation system.

2.1.3 Definitions, acronyms and abbreviations

- ✓ ARS: airline division system

2.1.4 References

- ✓ IEEE standard 830-1998 recommended practice for software requirement specification-description.

2.1.5 Overview

- ✓ SRS contains an analysis of the requirement necessary to help easy design
- ✓ The overall description provides interface requirements for the airline Reservation system, product perspective, hardware interface, software interface, communication interface, memory constraints, product function, user characteristics and other constraints.
- ✓ Succeeding page illustrate the characteristics of typical native users accessing the system along with legal and functional constraint enforced that affect Airline Reservation system in any fashion.

2.2 THE OVERALL DESCRIPTION

2.2.1 Product perspective

2.2.1.1 Hardware interface

- ✓ Hard disk: the database connectivity requires a hardware configuration with a fast database system running on high rpm hard-disk permitting complete data redundancy and back-up system to support the primary goal of reliability.
- ✓ The system must interface with the standard output device, keyboard and mouse to interact with the software.

2.2.1.2 Software interface

- ✓ Back end: spring-boot, APIs and my SQL
- ✓ Front end: react JS, HTML, CSS

2.2.1.3 Operations

- ✓ The user mode enables the end-user to do the end user operations like checking the availability, reserving and cancelling of flight ticket.

2.2.2 Product Functions

2.2.2.1 Viewing flight details

- ✓ The user must have the across up-to-date information about the flight including

- Flight number
- Flight name
- Flight route (start and destination station)
- Flight timing
- Seat availability.

2.2.2.2 Reserving tickets

- ✓ The user must be able to reserve ticket after selecting

- Flight number
- Flight Route

2.2.2.3 Cancelling tickets

The user must be able to cancel ticket that he has earlier reserved by quoting the ticket number, credit card number and bank name.

2.2.3 Functional Requirement

- ✓ Booking for a particular airline
- ✓ Search for airline
- ✓ Booking a flight
- ✓ Payment service 3rd party

2.2.4 Non-functional requirements

- ✓ Number of people searching airlines
- ✓ Number of transactions
- ✓ Flights per day
- ✓ Highly available
- ✓ Latency as low as possible
- ✓ Clients
- ✓ User from all rounds the global can book tickets

2.2.5 User characteristics

- ✓ The intended users of this software needs not have specific knowledge as to what is the internal operation of the system. Thus end user is at high level of abstraction that allows easier, faster operation and reduce the knowledge requirements of the user
- ✓ The product is absolutely user friendly so the intended users can be the naïve users.
- ✓ The Product does not expect the user to process any technical background. Any person who knows to use the mouse and the keyboard can successfully use this product.

2.2.6 CONSTRAINTS

- ✓ At the time of reservation, each user is provided a unique ticket number that must be used for further operations like cancellation. Hence the user is required to remember or store this number carefully.

2.3 Specific requirements

2.3.1 Logical database requirements

- ✓ The system should contains database that include all necessary information for the product to function according to the requirements.
- ✓ These include relation such as flight details, reservation details and cancellation details.
- ✓ The user details refer to the information such as flight number and name, start and destination station, seat availability.
- ✓ Reservation details refer to personal information that is obtained from the users
- ✓ At the time of reservation, the passengers is provided a unique ticket number that could be used at the time of cancellation.
- ✓ While displaying any information about the flight it has to provide the following information

- Flight no and name
- Availability of seats particular flight
- The flight timing
- The passenger personal details should be obtained for reserving the tickets

2.4 FRONT-END DESCRIPTION

The front-end for the airline reservation system (ARS) is designed using react JS, HTML, CSS. The front end contains the user-friendly interface. the first form contains welcome screen that provides an option for the users to select one of the following

- Enquiry
- Reservation
- Booking details
- Cancellation

In the Enquiry form the users can get details of the flight by means of either flight name destination or date of journey. In the reservation form, there can book details by entering the personal details. The ticket is displayed with details about the flight name and number of passengers, ticket number, sex and age. The cancellation from help the user to cancel a ticket, which he had booked earlier.

2.5 BACK-END DESCRIPTION

The airline reservation system consists of two tables one contains the flight details such as the flight name, flight number, destination, date of journey and seats available in each class that is a referred to during inquiry. the other table has a passenger details such as name, age, sex, credit card number, bank name. This table is referred to at the time of reservation or cancellation.

2.6 DATA STRUCTURES

- **FLIGHT DETAILS**

FIELD NAME	DATA TYPE	CONSTRAINTS
flight_number	int	Primary key
arrival_time	time	
available_seats	int	
departure_time	time	
destination	Varchar (255)	
price	double	
source	Varchar (255)	
Travel_date	date	

- **PASSENGER DETAILS**

FIELD NAME	DATA TYPE	CONSTANTS
pid	int	Primary key
age	int	
gender	Varchar (255)	
pass_name	Varchar (255)	
booking_id	int	

2.7 DATA FLOW DIAGRAM