

## **Ex No: 5 AIRLINE RESERVATION SYSTEM**

### **PROBLEM DEFINITION**

Ticket reservation system for airlines has to be developed.

The system developed should contain the following features

- The system should contain the following features
- Search for information about the flight by means of flight number and destination
- While displaying information about the flight it has to provide availability of seats.
- While reserving tickets the system obtains following information from the user
  - Passenger Name, Sex, Age, Address.
  - Credit Card Number, Bank Name.
  - number, Flight name, Date of Journey and number of tickets to be booked.
- Based on the availability of tickets, the ticket has to be issued. The ticket issued should contain the following information –ticket number, flight no, flight name, date of journey, number of passengers, sex, age and departure time.
- Cancellation of booked tickets should be available.

### **SRS DOCUMENT FOR AIRLINE RESERVATIONS SYSTEM**

#### **INTRODUCTION**

##### **Purpose**

The purpose of this SRS is to describe the requirements involved in developing a Airline Reservation system (ARS).

The intended audience is any person who wants to reserve or cancel tickets or to check the availability of Airline tickets

##### **Scope**

The product is titled Airline Reservation system (ARS).

The product will perform the following tasks

The software that is being developed can be used to check the availability of the flight tickets for the specified flight, destination and date of journey

If the tickets are available to the users needs and specification, then the software provide a facility to book the tickets.

If the passengers want to cancel the tickets, he can use the cancellation module of the Airline Reservation System.

Definitions Acronyms and Abbreviations ARS: Airline Reservation System.

## References

IEEE standard 830-1998 recommended practice for Software Requirements Specifications-Description.

## Overview

The SRS contains an analysis of the requirements necessary to help easy design.

The overall description provides interface requirements for the Airline Reservation system, product perspective, hardware interfaces software interfaces,, communication interface, memory constraints, product functions, user characteristics and other constraints.

Succeeding pages illustrate the characteristics of typical naïve users accessing the system along with legal and functional constraints enforced that affect Airline Reservation system in any fashion.

## THE OVERALLDESCRIPTION

Product perspective

Hardware interfaces

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 systems to support the primary goal of reliability.

The system must interface with the standard output device, keyboard and mouse to interact with this software.

Software interfaces

Back End: MS Access2007

Front End: Microsoft Visual Basic 6.0

Operations

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

Product Functions

Viewing Flight Details

The user must have the access up-to-date information about the flights including

- Flight number
- Flight Name
- Flight route (Start and Destination stations)
- Flight timings
- Seat availability.
- Reserving Tickets

The user must be able to reserve tickets after selecting

- Flight number
- Flight Route Cancelling Tickets

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

User characteristics

The intended users of this software need not have specific knowledge as to what is the internal operation of the system. Thus, the end user is at a high level of abstraction that allows easier, faster operation and reduces the knowledge requirement of end user

The Product is absolutely user friendly, so the intended users can be the naïve users.

The product does not expect the user to possess any technical background. Any person who knows to use the mouse and the keyboard can successfully use this product.

Constraints

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

## **SPECIFIC REQUIREMENTS**

Logical Database Requirements

The system should contain databases that include all necessary information for the product to function according to the requirements. These include relations 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 stations, seat availability.

Reservation details refer to personal information that is obtained from the user

At the time of reservation, the passenger is provided a unique ticket no 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 for the particular flight

The flight timing

The passenger personal details should be obtained for reserving the tickets.

## **FRONT – END DESCRIPTION**

The front-end for the Airline Reservation system (ARS) is designed using Microsoft Visual Basic 6.0. The front-end contains a user- friendly interface. The first form contains a welcome screen that provides an option for the user to select one of the following

- Enquiry
- Reservation
- Booking details
- Cancellation

In the Enquiry form the user 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, number of passengers, ticket number, sex and age. The cancellation form helps the user to cancel a ticket, which he had booked earlier.

## **BACK – ENDDDESCRIPTION**

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 referred to during enquiry. The other table has the passenger details such as name, age, sex, credit card number, and bank name. This table is referred to at the time of reservation or cancellation.

## DATASTRUCTURES

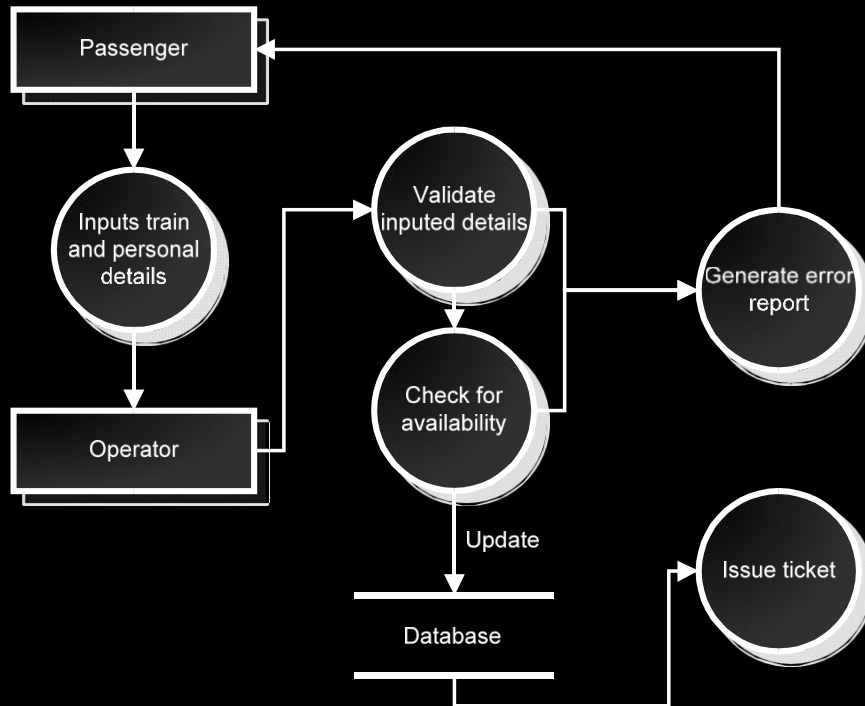
### FLIGHTDETAILS

FIELD NAME	TYPE	CONSTRAINTS
ROUTE_NAME	TEXT	NOT NULL
FLIGHT_NO	NUMBER	NOT NULL
SEATS_AVAIL	NUMBER	
JOURNEY_DATE	DATE/TIME	
DEP_TIME	DATE/TIME	
ARR_TIME	DATE/TIME	
COST	NUMBER	

### PASSENGER DETAILS

FIELD NAME	TYPE	CONSTRAINTS
TICKET_NO	AUTONUMBER	NOT NULL
NAME	TEXT	NOT NULL
GENDER	TEXT	
ADDRESS	TEXT	
CC_NO	NUMBER	NOT NULL
BANK_NAME	TEXT	
NO_OF_TICKETS	NUMBER	

## DATA FLOWDIAGRAM



## TESTING:

FORM NAME	INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	STATUS
MAIN MENU FORM	Menu Option	Required form must be displayed	Required form was displayed	Pass
TICKET AVAILABILITY FORM	Flight route or Flight name	Flight seat availability must be displayed.	Flight seats availability is displayed.	Pass
RESERVATION FORM	Personal details were entered.	Ticket must be booked and database updated.	Ticket was booked and database was updated.	Pass

SAMPLE FORMS

Form2

TICKET  
AVAILABILITY

Select route

Submit

Flight No

No of Seats available

Date of Journey

Departure Time

Arrival Time

Cost of Ticket

Back to Main Menu

MAIN MENU FORM

Form1

AIRLINE  
RESERVATION SYSTEM

Ticket Availability

Reservation

Cancellation

Exit

## TICKET AVAILABILITY FORM RESERVATION FORM

The screenshot shows a web form titled "Form3" with a blue background. At the top, the text "TICKET RESERVATION" is underlined in green. Below this is a "Route" label followed by a dropdown menu. A "Submit" button is centered below the dropdown. Further down, there are eight input fields arranged in two columns. The labels for these fields are "Passenger Name", "Age", "Sex", "Address", "Credit Card No", "Bank Name", and "No of tickets". At the bottom of the form, there are two buttons: "Book Tickets" and "Cancel".

## CANCELLATION FORM

The screenshot shows a web form titled "Form4" with a blue background. At the top, the text "CANCELLATION" is underlined in green. Below this is a "Ticket No" label followed by an input field. A "Cancel Ticket" button is centered below the input field. At the bottom of the form, there is a button labeled "Back to Main Menu".

## RESULT

Thus, the online Airline Reservations System was implemented using the specified front end and back-end tools.