**Chapter 1: Introduction**

1. **Description of Organization** 
   1. **Introduction**

The **airline reservations system (ARS)** was one of the earliest changes to improve

efficiency. ARS eventually evolved into the computer reservations system (CRS). A

computer reservation system is used for the reservations of a particular airline and

interfaces with a global distribution system (GDS) which supports travel agencies and

other distribution channels in making reservations for most major airlines in a single

system

**1.2 History of Organization**

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changes to improve efficiency. ARS eventually evolved into the computer reservations

system (CRS). A computer reservation system is used for the reservations of a

particular airline and interfaces with a global distribution system (GDS) which supports

travel agencies and other distribution channels in making reservations for most major

airlines in a single system.

**Jet Airways** is the largest Indianairline based out of Mumbai, Maharashtra. It operates

over 400 flights daily to 76 destinations worldwide. Its main hub is Mumbai, with

secondary hubs at Delhi, Kolkata, Chennai, Cochin, Ahmedabad, and Bengaluru. It has

an international hub at Brussels Airport, Belgium. Jet Airways is owned by

NareshGoyal. Jet Airways's head office is located in the Siroya Centre in Andheri,

Mumbai

Jet Airways serves 52 domestic destinations and 24 international destinations, a total of

76 in 19 countries across southern Africa, Asia, Europe and North America. Short-haul

destinations are served using Boeing 737 Next Generation. ATR 72-500s are used only

on domestic regional routes, while long-haul routes are served using its Airbus A330-

200 and Boeing 777-300ER aircraft. London, England was the airline's first long-haul

destination and was launched in 2005.

**1.3 Objective of Organization**

Jet Airways will achieve these objectives:-

1. simultaneously ensuring consistent profitability
2. achieving healthy, long-term returns for the investors
3. Providing its employees with an environment for excellence and growth.
4. Providing Comforts in all zones while traveling to the customers.
5. Giving a quick response on any query raised either by employee or by customer.
6. Achieving goal in hanging up with customer in a increasing percentage year by year
7. They are trying to upgrade the concept of domestic airline travel to be a world class domestic airline.

**1.4 Organizational Structure**

Jet Airways is led by a dynamic, extremely talented and experianced team:

CEO

Finance

&

Humana resource

Sales

Secretary

Network Planning

& Revenue

Legal

Executive officer

Procurement

& Properties

Alliance

&

planning

Sales

Public Relations

Communication & public Relation

Cabin crew

Sales Strategy & Investors

Customer

services

**Diagram of Organizational Structure**

**1.5 Key Result Areas**

1. **On Ground Services**: It is the process of booking ticket or checking in for flight, It ensures that every need on the ground is met.
2. **Check-in options** : Jet Airways offer multiple check-in options.
3. **Airport Lounges** : Jet Privilege Silver, Gold or Platinum card member or a Club Premiere passenger, can relax and enjoy complimentary snacks and beverages in jet Airways’ plush airport lounges.
4. **Coach Services** : Airport Authority of India (A. A. I.) operates shuttle coaches for transit passengers from domestic to international airport and vice-versa at Mumbai and Delhi airports.
5. **Complimentary Chauffeur Drive :** A service specially for PREMIERE passengers traveling between Mumbai/Delhi and London (Heathrow).
6. **In-Flight Services** : Jet Airways continually endeavours to better its services, both on the ground and in the air. From crew, whose priority is passengers’ comfort to the safety standards enforced to ensure that one is free of worr

**1.6 Functions**

1. **Online ticketing Reservation at jetairways.com: It Book**, pay and print your tickets instantly. Also, book multiple sectors for domestic and international flight at jetairways.com.
2. **IVR Interactive Voice Response: It** Book and pay for your tickets through our 24x7 call center over a secure IVR, and get your tickets via e-mail.
3. **Mobile Ticketing with Jet Wallet:** Book, pay and generate your eTicket. SMS ‘Jet Wallet’ to 56388 to download Jet Wallet on your GPRS phone.
4. **Pay Online service:** Book your ticket at Jet Airways reservation office and pay online at jetairways.com.
5. **Web Check-in:** Select your seat, print your boarding pass and proceed directly for security check.
6. **SMS Check-in**: Check-in anytime, anywhere and avail of a confirmed seat number on your mobile phone.
7. **Kiosk Check-in:** New age Kiosks at select airports in India help you select your seat and print your boarding pass at the touch of a screen.
8. **Bus service:**To make travel simpler, Jet Airways now provides a bus service to transport guests travelling to Dammam via Bahrain and vice-versa through King Fahad Causeway
9. **Secure Flight Passenger Data:** The United States Transportation Security Administration (TSA) has introduced a new ‘Secure Flight Passenger Data’ system for all guests travelling to / from the United States Of America.  
     
   The ‘Secure Flight Passenger Data’ system is also applicable to all guests travelling to / from / within Canada and flying over continental U.S.   
     
   Transportation Security Administration (TSA) requires you to provide the below information:

* Full Name (Your name as it appears on your passport)
* Date of Birth
* Gender
* Redress Number (if available)

1. **IVR Ticketing :Interactive Voice Response (IVR) based Payment and Ticketing**

Jet Airways’ IVR based payment and ticketing service is the latest booking facility through our 24\*7 call centre. Now book and pay for your eTickets over an exclusively customized and secure Interactive Voice Response (IVR) system.

Our IVR service allows you to complete your reservation, pay using credit cards through a secure gateway and instantly receive your eTickets via e-mail.

Once you confirm that you want to pay through the contact centre, our contact centre executive will transfer you to a secure IVR system that will request you to enter your credit card details. On a successful authorization of the credit card, you will get an automated response and your

**2 Software Requirement Specifications**

**2.1 Introduction**

A software requirements specification (SRS) is a complete description of the behavior of the system to be developed. This Software Requirement Specification is written in accordance with the IEEE STD 830-1998 model.

**2.1.1 SRS Used in the project**

The following subsections of Software Requirement Specifications Document should facilitate in providing the entire overview of the Information system “Airlines Reservation System” under development. This document aims at defining the overall software requirements for Passengers . Efforts have been made to define the requirements of the Information system exhaustively and accurately.

**2.2Purpose**

The main purpose of Software Requirement Specifications Document is to describe in a precise manner all the capabilities that will be provided by the Software Application “Airlines Reservation System”. It also states the various constraints which the system will be abide to. This document further leads to clear vision of the software requirements, specifications and capabilities. These are to be exposed to the development, testing team and end users of the software

**2.3 Scope**

1. Airline Reservation System make the life of passengers very easy as they don’t need to stand in queues for getting their seats reserved and they can easily make reservations on any airline just from our single system.
2. It will also remove an extra burden from the Airline Department as most of the passengers and travel agencies use this service instead of making reservations from the counters.
3. With the help of our system, customers can view all the different flight’s availability with different timings for a particular date and it also allows them to reserve a seat, cancel a reservation or modify it.
4. It can helps the customers and on the other, it will also makes the life of the airline service companies easier by keeping all the records of the passengers and if there is any change in the fight due to some reason, the passengers are promptly informed.

**2.4Definition, acronyms, abbreviations**

DBA : Database Administrator

ARS : Airlines Reservation System

IEEE : The Institute of Electrical and Electronics Engineers

SRS: Software Requirements Specification

**2.5 References**

* 1. jet airways
  2. yatra.com

**2.6 Overview**

The rest of this SRS document describes the various system requirements, interfaces, features and functionality in detail.

**2.7 Overall description of proposed system**

This section contains the details about all the processes that are performed in the

software system and also tells us about the input and output identification i.e. what is the

input being given and what is the desired output.

**1. Booking**

**Input:** Departure city , Arrival city, Departure Date , class

**Process:** Operator will enter the above details and check for availability

**Output:**If operator will found the availability the output is flight ticket

**2. Cancellation**

**Input:**Pnr No

**Process:** Operator will enter the Pnr no and check in the database

**Output:** If the process is successful the result is cancelling of ticket

**3. Print Ticket**

**Input:**Pnr No

**Process:** Operator will enter the Pnr no and check in the database

**Output:** If the process is successful the result is print of ticket it is used in

case when Ticket is lost

**2.8 Product Perspective**

The application will be windows-based, self-contained and independent software

product.

Front End Client Application (with data entry / update /delete /view and reporting facility)

Backend Database

**2.9 System Interfaces**

None

**2.10 Interfaces**

**2.10.1 Hardware Interfaces**

* Screen resolution of at least 800\*600 pixels- requires for proper and complete viewing of screens.
* Standalone systems or network based – not a concern, as it will be possible to run the application on any of these.
* Minimum processor requirements Pentium 4, 1.2 GHz
* printer

**2.10.2Software Interfaces**

* Visual Basic 6.0 is used as Frontend
* Oracle 10g is used as Backend.

**2.10.3Communication Interfaces**

None

**2.11 Memory Constraints**

At least 64 MB RAM and 2 GB space on hard disk will be required for running the application.

**2.12 Operations**

This product will not cover any automated housekeeping aspects of database. The DBA at client site will be manually deleting old/ non required data.

Database backup and recovery will also have to be handled by DBA.

**2.13 Site Adaptation Requirement**

The terminals at client side will have to support the hardware and software

interfaces specified.

**2.14 Product functions**

The system will allow access only to authorized users with specific roles

(Administrator, Operator). Depending upon the user’s role, he/she will be

able to access only specific modules of the system.

A summary of the major functions that the software will perform:

(i) A Login facility for enabling only authorized access to the system.

(ii) Users (with role operator) will add/update/delete the stored information

and so on

* 1. **User Characteristics**

2.15.1 Educational Level: At least graduate and should be comfortable with

English Language.

* + 1. Technical Expertise: Should be a high or middle level employee of the

Organization comfortable with using general purpose applications on a

computer

**2.16 Constraints**

GUI is only in English.

**2.17 Assumptions and Dependencies**

None

**2.18 Apportioning Requirement**

Not Required

**2.19 Specific Requirements**

This section contains the software requirements to a level of detail sufficient

to enable designers to design the system, and testers to test the system.

**2.20 External Interfaces**

This interface will be the actual interface through which the administrator

will communicate with the application and perform the desired tasks. The

following screens will be provided:

**2.21 User Interfaces**

**Menu Screen**

C:\Users\SAS\Desktop\sct\untitled.TIF

**Administrator Screen**

**C:\Users\SAS\Desktop\sct\untitled12.TIF**

**2.22 Hardware Interfaces**

**Hardware Tools**

|  |  |
| --- | --- |
| Hard Disk | 1GB |
| Ram | 64MB |
| Processor | 1.8Ghz or above |

**2.23 Software interfaces**

**Software Tools**

|  |  |
| --- | --- |
| Operating System | Windows XP |
| Front-End | Visual Basics |
| Back-End | Oracle10g |

**2.24 Communication Interfaces**

None

**2.25 System Features**

1. **Reservation of Ticket**

**Description:-** In this module the User details will be entered by the data entry operater, the details like:- name of customer, age, sex, no of seats etc will be enter so that the data the next procedure can go on.

**Validity checks**

* Only data entry operator will be authorized to access this module.
* User name cannot be left blank.
* user’s gender cannot be left blank.
* User contact details cannot be left empty.
* Date of departure cannot be left blank.
* Destination to Source station cannot be left blank.

**Error Handling / Response to abnormal situations**

If any of the above validations/sequencing flow does not hold true, appropriate error messages will be prompted to the user for doing the needful.

1. **Printing of Ticket**

**Description:-** The module provides the facility to generate tickets, the inputs to this module being the ticket details which we have mention above and discount (if any) and total amount , the output being the ticket which is formed by the system.

**Validity checks**

* The total amount can be never negative.
* Fully printed ticket with all the values

**Error Handling / Response to abnormal situations**

If any of the above validations/sequencing flow does not hold true, appropriate error messages will be prompted to the user for doing the needful.

**c. Cancellation of Ticket**

**Description :-** In this module if a passenger want to cancel the ticket as in case he/she don’t want to travel, then the Pnr no which the passenger will get on his/her ticket have to enter that & make the cancellation**.**

**Validity checks**

* Pnr\_no cannot be left blank.

**Error Handling / Response to abnormal situations**

If any of the above validations/sequencing flow does not hold true, appropriate error messages will be prompted to the user for doing the

needful.

**2.26 Performance Requirements**

None

**2.27 Logical Database Requirements**

The proposed information system contains the following data tables in its

Database collection.

**2.27.1 Flight Database Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FLIGHT DATABASE** | | | | |
| **Field Name** | **Field Type** | | **Field Size(No of Character)** | **Description** |
| Flight\_Company | | Varchar | 15 | The name of the flight company it belongs to. |
| Depart\_City | | Varchar | 10 | The city from where the flight will take off |
| Arrival\_City | | Varchar | 10 | The city where the flight will land |
| Depart\_Date | | Varchar | 10 | Date of flight take off |
| Depart\_Hour | | Number | 3 | Time in hour of flight’s take off time |
| Depart\_Minute | | Number | 3 | Time in minutes of flight’s take off time |
| Eco\_No\_of\_Seat | | Number | 4 | Total economy seats in flight |
| Eco\_Price | | Varchar | 10 | Price of one economy seat |
| Bust\_No\_of\_Seat | | Number | 4 | Total business seats in flight |
| Bust\_Price | | Varchar | 10 | Price of one business seat |
| Flight\_No | | Varchar | 15 | Unique flight no system genrated |

**2.27.2 Customer & Reservation Database Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **CUSTOMER & RESERVATION DATABASE** | | | |
| **Field Name** | **Field Type** | **Field Size(No of Character)** | **Description** |
| Title | Varchar | 4 | Title of customer |
| First\_Name | Varchar | 20 | First Name of the Ticket for whom its booked |
| Last\_Name | Varchar | 20 | Last Name of the Ticket for whom its booked |
| Date\_of\_Birth\_Day | Number | 2 | Age of passenger according to day |
| Date\_of\_Birth\_Month | Char | 4 | Age of passenger according to month |
| Date\_of\_Birth\_Year | Number | 4 | Age of passenger according to year |
| Mobile\_No | Char | 15 | Contact number/ mobile number of passenger |
| Address\_Line\_One | Varchar | 50 | Address of passenger |
| Address\_Line\_Two | Varchar | 50 | Sub address of passenger |
| City | Varchar | 10 | City where passenger living |
| State | Varchar | 15 | State where passenger living |
| Country | Varchar | 15 | Country where passenger living |
| Pincode | Char | 8 | Area code of the passengers residential |
| Pnr\_No | Varchar | 20 | Pnr no of the ticket registered/ reserved (system generated) |
| Flight\_No | Varchar | 15 | Unique flight no of plane |
| Cabin | Varchar | 10 | Section in which the seat reserved |

**2.28 Design Constraints**

None

**2.29 Software System Attributes**

* Reliability

This application is a reliable product that produces fast and verified

output of all its processes.

* Availability

This application will be available to use for our end users and help them

to carry out their operations conveniently.

* Security

The application will be password protected. User will have to enter

correct username, password and role in order to access the application.

* Maintainability

The application will be designed in a maintainable manner. It will be

easy to incorporate new requirements in the individual modules.

* Portability

The application will be easily portable on any windows-based system

that has oracle installed.

**2.30 Other Requirements**

None

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1. **Gantt chart**









