**SRS FOR AIRLINE RESERVATION SYSTEM**

**SOFTWARE REQUIREMENTS SPECIFICATION**

1. **Introduction**

* **Purpose**

The main purpose of this software is to reduce the manual errors involved in the airline reservation process and makes it convenient for customers to make reservations, modify reservations or cancel a reservation.

* **Scope**

Name of the software is AIRS (Airline Reservation System).

AIRS provides options for viewing different flight timings for a particular date and provides customers with facility to book a ticket, modify or cancel a particular reservation.

It does not provide the customer with details of the flight crew members and operations of the airport.

* **Overview**

This document deals with all the main features of this software and describes its main functions.

* **Definitions**

*SRS***:** It is a document stating all the user requirements. It stands for Software Requirements Specification

*User ID:* A unique identification number for every user of AIRS

*Password:* Used for user authentication

*Database***:** A collection of information that is organised so that it can be easily accessed, managed and updated.

**2. General Description**

* **Product perspective**

AIRS is an independent and a self-contained system that manages online reservation process for airlines.

* **Product Functions**

The major functions of AIRS include:

1. Enter source and destination
2. Enter date of journey
3. Display list of flights available along with timings (arrival, departure) , airline, booking status, price of seats in various classes(business class, economic class, general)
4. Book a flight
5. Pay for the ticket online (debit, credit, net banking, e-wallet)
6. Generate an e-ticket

* **User characteristics**

1. Basic English knowledge
2. Trained in GUI
3. Knows how to open a web-application (basic Internet knowledge)

* **Abbreviations**

1. GUI- Graphical User Interface
2. OS- Operating System
3. SQL- Structured Query Language
4. OTP- One-time password
5. API- Application Programming Interface

**3. Specific Requirements**

* **Functional Requirements**

1. Display flight details for a particular destination on a particular date

**INPUT:** Destination and date of journey

**PROCESSING:** System will gather information from its database

**OUTPUT:** Displays all the flights available that pass via the destination on the day entered by the user.

1. Reserve a seat in a flight

**INPUT:** User details (name, age, no. of passengers, e-mail ID, mobile no.)

**PROCESSING:** Accepts the entered details and generates an OTP for the given mobile no. The user confirms reservation by entering his OTP.

**OUTPUT:** Ticket is cancelled. Money will be refunded to the bank account within 24 working hours. Cancellation charges may be deducted.

1. Cancel a seat in a flight

**INPUT:** User PNR

**PROCESSING:** PNR validation

**OUTPUT:** A PNR is generated for the user. A printable e-ticket is also generated.

* **External Interface**

1. User interface: Windows based GUI
2. Hardware interface: The system support a keyboard, a monitor and an optional printer. The hardware requirements are:

* 4 GB RAM
* Minimum of 512 Kbps Internet speed

iii. Communication interface: An Internet connection is required as AIRS is a web-application

* **Software System Attributes**

1. *Reliability:* Reliable AIRS. Possibility of software crashes is negligible
2. *Availability:* Being a web-app, AIRS is always available when one has Internet connection
3. *Security:* Uses APIs of banks for payment, which are perfectly secure. Network security will be provided by the use of firewalls
4. *Maintainability***:** AIRS has a skilled and efficient software development team which will always be ready to cater to the maintenance needs of AIRS.

* **Other Requirements**

1. **Performance Requirements**

*Response time***-** less than 5s when any hyperlink is clicked

*Capacity***-** Up to 100 people logged-in at the same time

**b) Non-functional requirements**

*Security***-** Every user has a user-name and a password for logging onto AIRS

*Reliability-*AIRS is a web-application and runs smoothly on a medium-good internet speed connectivity

*Safet*y**-** Payment transactions implemented via APIs which are perfectly secure.

*Software quality***-** AIRS will be a high quality, reliable, quick and a user-friendly software