**myAir**

1. **Introduction**
   1. **Purpose of this document**

The purpose of this document is to present a detailed description of the myAir(Flight Ticket Management System). It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

* 1. **Scope of this document**

The name of the software is “myAir”. This software provides options for viewing different flights available with different timings for a particular date and provides customers with the facility to book a ticket, modify or cancel a particular reservation. On one hand, it helps the customers and on the other, it 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.

* 1. **General Description**

myAir is a growing Airline Company. They wanted to digitalise their flight ticket booking system. They operate both domestic, international passenger and cargo and chartered flights. This project represents the initial version of the Flight ticket booking system. All requirements listed herein describe a self-contained system. At a high level, this project will allow a user to book flights, check flights, do account maintenance, and query flight information. The goal is to allow customers greater and easier access to the airline’s booking system, twenty-four hours a day

1. **Actors**

* Passenger
* Admin
* Airline staff
* Finance

1. **Functionalities**

* Login and Registration
* Search Flight
* Book Flight
* Payment
* Invoice download
* Generate boarding pass

1. **Functional Requirements**

4.1 **USER**

**Login**

The login screen allows registered users to login to the site to access all the features that their account gives them access to. If they type in their username and password and click submit the user's credentials are validated and if correct, the page is redirected to user homepage according to the role of user. If they are incorrect, they get an error message “wrong username or password”. If the user has forgotten their password, they click "Forgot Password?" which takes them to a password recovery screen. If the user does not have an account, then they click the register button and be taken to the registration screen seen below

* + Username [required, alphanumeric]
  + Password [required, alphanumeric]
  + Login button
  + Forgot Password
  + Register button

**Forgot password**

If the user clicked "Forgot Password?" On the login screen, a dialog box will appear and ask the user to enter their email address. After the user types in their email address and clicks submit the email address is checked to see if it belongs to a registered user and if it does then an email with a secure password reset token is emailed to the user.

* + Email id [required, email] [validation for email]
  + Submit button

4.2 **PASSENGER**

**Registration**

The Registration page enables users to independently register and gain access to the system. The registration form contains a list of fields that a user will input data into and submit to the company. In the registration screen a new user type in all of their information and clicks submit, the data is then validated to make sure there is not an existing user with those credentials. If there is an existing user, then the user is asked to enter a new username. If there is no conflict with the credentials, then the user is registered.

* First Name [required minlength 1, maxlength 20]
* Last Name [required minlength 1, maxlength 20]
* Mobile number [10 digits, numeric]
* Age [numeric (integer)]
* Email [unique] [validation for email]
* Gender [ dropdown (male, female, other) ][required]
* House No [required][maxlength (25)]
* Place [required] [max length (25)]
* Pin code [number] [6 digits min & max]
* Password [password][minlength 6]
* Confirm Password [password][minlength 6]

**Search Flight**

Flight searching page collects information's such as starting location, destination, date of journey, number of Travellers, and travel class from the user and display all flights available according to users need. Search result displays all flights available along with ticket fare, number of seats available, departure time, journey time and a button to book ticket, when clicking the button user is redirected to another page where the complete flight details is provided, and user can book flight from that page. An option to book return flight is also provided so that user can book ticket to destination and back to original departure point. Users must fill all the details in the form to search for a flight. Search result should display in the ascending order of departure time.

* Flying from (required) [text - location]
* Flying to (required) [text - location]
* Date of journey (required) [Date format - DD/MM/YYYY]
* Number of passengers (required) [number (integer)]
* Travel class (required) [Dropdown - (first class, business class, economy class)]
* Return date (optional) [Date format - DD/MM/YYYY]

Flying from and Flying to accepts alphanumeric as input, on typing each letter it should show suggestions of place. When choosing date users must only be able to choose future date, previous or past dates must be locked so that user cannot choose them accidentally. The page only displays flight, which is available if there is no flight available based on users input page should show a message: “No flights found”.

**Ticket Booking**

After selecting flight from search user is redirected to booking page. Booking is a document which shows the cost of travel, passenger and journey details. Flight tickets have departure and arrival details, Flight details, Ticket fare, Booking code, seat number, and boarding time. Booking page includes a button to go back to search page and a button to continue booking. When the user clicks on the continue button the page will be redirected to the payment module. Booking page shows the ticket fare including all taxes.

* Continue [button onclick- redirect to payment]
* Back to search [button onclick – redirect to search page]

**Payment**

Users can do payment in different ways such as:

* UPI
* Debit card

If user choose UPI, a text field will popup asking for UPI id. After entering UPI id, check whether the UPI exists or not, and an option to continue. If user select debit card three text fields and a continue button will be shown, user need to enter card number, CVV number and the validity or card. Check whether the entered card number and CVV are numeric. Card number required 16 digits and CVV is 3 digits. Format to enter card validity is MM-YY and check if the card is expired or not, if expired show a message “enter valid card”. After pressing continue button it will check if all the information’s are correct and if yes, it will make the payment after successful payment, invoice and boarding pass are generated for the booking and the user will be redirected to invoice and boarding pass page where user can download invoice and boarding pass.

**Invoice and boarding pass**

Users can download invoice and boarding pass after completing payment. This page includes buttons to download invoice and boarding pass in pdf format.

Information’s included in invoice is the cost of ticket paid by the user to the airline along with other charges including tax and service fees, transaction id of payment, transaction time and date, ticket number, flight number, user’s name, transaction status.

Information's included in boarding pass is the legal name of the passenger and flight information including airline name, departure gate information, departure and arrival cities, flight number, departure time, boarding time, and seat assignment.

**Passenger Profile**

Profile displays the personal details of a user. This includes all the information that user provided at the time of registration. Profile page includes buttons to update profile details and option to change password of user. On clicking update profile a form will be displayed with user details and user can edit the details and update profile. If user click on change password, an input box will be displayed asking for current password if user enters the correct password two other input box will be displayed asking for new password and confirm password. After entering password user can click on update password to execute th change.

**My bookings**

My bookings page displays history of ticket booked. It includes option to download invoice of ticket booked and user can download boarding pass of future bookings.

4.3 **ADMIN**

**Dashboard**

This is the page where Admin will be redirected. In this page, the admin can add flights, view and edit users, view all bookings and cancellations, view all flights, view employees, edit flight information's, remove users, schedule flights, update flight schedule status.

**Add and Remove Flights**

Admin can add and remove flights, on clicking the remove button an alert box will appear asking for admin confirmation to remove the selected flight and if admin clicks yes, the flight will be removed. When clicking add new flight button, display text fields to input flight details such flight number, flight name, flight description and total capacity.

* Remove Flight [button]
* Add Flight [button]
* Flight number [number]
* Flight name [text]
* Flight Description [text]
* Total capacity [number]

**View and Remove Users**

On clicking the view users button on the admin dashboard, it will redirect to view users page and list all the users along with remove and edit user buttons. Admin can remove a user by clicking on the remove button and edit user details if required.