Software Requirements Specification

Version 1.0

Airbook

Team # 1

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| --- | --- | --- |
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# Introduction

## Product

Airbook is an Online Flight booking and management system that allows individuals to book flights from the comfort of their house. The archaic way of booking flight has become a arduous task due to the large amount of people wanting to travel. To cater to all these clients using nothing but telephone calls or by visiting the airline offices has become very difficult hence leading to the inception of this platform.

With Airbook Users can book flights and travel with ease. This Software Requirements Specification (SRS) outlines the steps taken to create a working solution for the initial deployment of Airbook’s flight management and booking system. Our team will be tasked with designing and implementing a website that can be used by passengers and potential passengers as a self-service tool. Phase 1 of Airbook will allow passengers to establish a secure connection to the FCA Reservation System, log in, search for available flights, create a reservation, cancel a reservation, and view a listing of all reservations

## Scope

In the first phase of Airbook System, the following functions will be included:

* Establish a secure connection
* Login to the system
* Search for available flights
* Create reservation
* View reservation
* Cancel reservation

The Airbook will be accessible on PC computers and smartphone.

## Business Goals

The purpose of this document is to outline the requirements, both functional and non-functional, of the Flight Planning and Management System. The document serves as a communication medium and a contract between the developers and the stakeholders; the system must adhere to all the requirements that are listed below and be delivered on the intended deadline.

## Document Conventions

* The Main topics are bolded in a heading and are represented using whole numbers.
* Sub topics and bullets are indented beneath the main topic heading with a decimal version of the whole number.
* All acronyms will be introduced with its full name, followed by its acronym in parenthesis.
* From this point forward, the acronym is used in place of the full word titles.
* In the glossary in Appendix A, any acronyms used within this document are outlined in alphabetical order for easy reference.

## References

* Agile Alliance. (n.d.). 12 Principles Behind the Agile Manifesto. Retrieved November 7, 2016, from Agile Alliance: https://www.agilealliance.org/agile101/12-principles-behind-the-agilemanifesto/
* Agile Alliance. (n.d.). Agile 101. Retrieved November 7, 2016, from Agile Alliance: <https://www.agilealliance.org/agile101/>
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* Atencio, T. (2016, October 9). CS455 Live Chat #4 – Specifications and FDUCS. [Chat]. Retrieved from Colorado Technical University Online, Virtual Campus, CS455-1604A-01 Classroom: <https://campus.ctuonline.edu>
* Atencio, T. (2016, October 16). CS455 Live Chat

# Functional Requirements

## Login

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-1 | |
| **Purpose** | | Log in to book Flight | |
| **Priority** | | High | |
| **Actors** | | User, Admin, Manager | |
| **Pre-conditions** | | Not logged in and present on the Sign in page | |
| **Post-conditions** | | Logged in | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | Enter Username and Password | |  |
| **2** |  | | Verify Username |
| **3** |  | | Verify Password |
|  |  | | Display “User Logged in” |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **4** |  | | Display “Password not Correct” |
| **5** |  | | Display “Username not Correct” |

Table 1: UC-1

## Sign Up

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-2 | |
| **Purpose** | | To be Registered on the Website to book flights | |
| **Priority** | | High | |
| **Actors** | | User | |
| **Pre-conditions** | | No account present | |
| **Post-conditions** | | Account Registered and Logged in | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | Enter Username | |  |
| **2** | Enter Password | |  |
| **3** | Enter Email ID | |  |
|  |  | | Verify Username and Password and send a confirmatory email to email address |
| **4** | Confirm the email ID via mail | |  |
|  |  | | Register User Account |

## Book Flight

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Identifier** | | UC-3 | | | |
| **Purpose** | | To book Flight | | | |
| **Priority** | | High | | | |
| **Actors** | | User | | | |
| **Pre-conditions** | | Flight not booked and present on Flight page | | | |
| **Post-conditions** | | Flight Booked | | | |
| **Typical Course of Action** | | | | | |
| **S#** | **Actor Action** | | | **System Response** | |
| **1** | Enter Departure | | |  | |
| **2** | Enter Arrival/Destination | | |  | |
| **3** | Enter no seats | | |  | |
|  |  | | | Check the Database for Flight and show respective entries | |
| **4** | Book Flight | | |  | |
|  | Provide email ID for confirmation | | |  | |
|  |  | | | Book Flight and send confirmation email | |
| **Alternate Course of Action** | | | | | | |
| **Actor Action** | | | | **System Response** | |
|  | | | | Display “Seat Not Available” | |

## Add Flight

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-4 | |
| **Purpose** | | To add a Flight | |
| **Priority** | | High | |
| **Actors** | | Manager | |
| **Pre-conditions** | | Flight Not added | |
| **Post-conditions** | | Flight added to database waiting approval of Admin | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | Enter Flight name | |  |
| **2** | Enter Departure and Destination | |  |
| **3** | Enter no of Seats and Date of Flight | |  |
|  |  | | Register and wait for Admins approval |

## Add Flight

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-5 | |
| **Purpose** | | To Approve the Flights added by the Manager | |
| **Priority** | | High | |
| **Actors** | | Admin | |
| **Pre-conditions** | | Flight awaiting Approval | |
| **Post-conditions** | | Flight Approved and Open for Booking | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | Open Pending Approval | |  |
| **2** | Approve Flight | |  |
| **3** |  | | Flight added as Approved to database |
|  |  | | Flight open for Booking |

# Nonfunctional Requirements

## Performance Requirements

The Website should ensure the User, the Admin and the manager can get access to all use cases with ease. Below listed are some of the Performance Requirements.

* Flights once depart the Bookings should be closed
* Bookings via Website should be closed 3 hours prior to departure
* Flights must be approved 1 week before the departure date
* If Flights are not approved they should automatically be delisted
* Manager cannot add Flight whose departure date is less than a Month away
* The system will recognize when a user has been idle for a period of 4 minutes. At this time, the application will close and the user will be required to reopen the application to restore a secured session and log into the system.
* The application will have no more than 4% of downtime within a given month. 12 hours of scheduled maintenance will be permitted in any given month. Unscheduled downtime and maintenance must be addressed and resolved in as little time as possible

## Security Requirements

There are certain security requirements that need to be met whilst booking a flight or even registering an account on the website

* User verifies their account
* User verifies through his email ID that he booked and paid for the flight.
* After 4 minutes of inactivity, the application will close. This will require that the user reopens the application in order to establish a secure session.
* The application will not store personal data on the device that accesses the website.

# Other Requirements

The other requirements include,

* The font size will increase to 24-point font for all headers and decrease to 12-point font for support information and footers.
* The application will use the Airbook color scheme of blue and white.
* The Airbook logo and a secure connection image will be present on all screens with the exception of the loading screen.
* Each update to the application will include versioning for troubleshooting and traceability purposes.
* The application will be developed using Object Oriented programming. This platform allows for design features to be reused.