Flight Management System

Software Requirements Specification

Version 1.3

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 01/Apr/2015 | 1.0 | First Version of SRS  Finished Section 1 | Matthew King  Michael Kong  Jicheng Li  Siyuan Chen |
| 10/04/2015 | 1.1 | Add Initial Functional Requirements | Matthew King |
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Software Requirements Specification

# Introduction

## Purpose

The purpose of this document is to describe the external behaviour of a Flight Management System. In this document, a detailed overview of the software’s parameters and goals. Optional functions, that may be implemented later, are also described. Also described within this document are non-functional requirements that are necessary in providing a complete and thorough description of all system requirements.

The software development team and the potential users are the main audience of this document.

## Scope

The software system to be produced is a command line based airline management system. This system is aimed at two general groups of users: potential customers of the system who will be performing flight bookings on the system, and the airline management staff who will handle backend roles such as managing flights and services. The entire system will be under the control of the system administrator whose role is to maintain all services and users related to the system.

There are four main components to the system which will be described below:

* Reservation System that manages all flight reservations, seat selection, ticketing, flight availability, flight details, rates and conditions.
* Profile Subsystem that manages individual passengers and travel agency profiles.
* Service Subsystem that manages in-flight services such as food and drinks.
* Reporting Subsystem to generate various summary reports such as Passenger Report, Cash Report and Booking Summaries.

Although the system makes booking flights more convenient for customers, that are some limitations of the system:

* Customers who want to modify the services that they receive on their flight need to contact the airline staff. The airline staff will then change the services accordingly.

## Definitions, Acronyms and Abbreviations

Refer to Glossary document.

## References

Rational Unified Process, SRS sample (Sample - SoftwareRequirementsSpecification.pdf)

## Overview

The remainder of this document is composed of two main sections:

Section 2: Overall Description: Description of the general factors that affect the system and provide high level requirements of the system.

Section 3: Specific Requirements: Description of all software requirements the system must have to meet the requirements and necessities of the client.

# Overall Description

## 2.1 Product perspective

All current activities under the management are done manually at present. Processes that are executed manually, such as booking tickets at the airline ticketing office, are inefficient; considerable amounts of time and manpower are required.

From this ineffiency arises the need to build a Flight Management System to increase efficiency, productivity and convenience for the customers and potential passengers, airline staff and the owners of the airline for which this syste will be built. Processes that are currently inefficient, such as booking tickets and managing flights, will be simplified and made convenient.

### System Interface

The Flight Management System to be developed is a command-line based application. It is to be deployed on the Internet where users are required to login to the system.

Clients can login to the system concurrently from any computer that has supports the command-line application and an Internet connection to interact with the system. Clients can then access the functions and services through the client command-line application.

A server will host the core of the Flight Management System such as the component to handle clients and the database. Client machines will connect to the server and interact with the system via a command line program. The command line program will act as the interface to accept and process client requests, and retrieve data from the central server of the system.

### User interfaces

Client machines will be featuring command line interfaces. Any computer that supports a command-line window will be able to access the Flight Management System. All users will be using the same interfaces; however, users of varying roles will view different interfaces once they have logged into the system.

All access to data and information such as flight schedules, user info and services will be restricted to the command line program provided in the Flight Management System.

### Hardware interfaces

All components must be able to execute on a personal computer.

### Memory Constraints

All client machines running the command-line application require a minimum of 100MB.

### Operations

The Flight Management System must have high ease of usability. No specific information or skills are required to use the system.

System data storage files should be well managed by the system so that the network administrator can have easy access to them and would not require and additional information or technical skills.

Backup and recovery operations must be specified in case of power failure, file corruption, or any other uncertain circumstances that may disrupt the system.

## Product Functions

The two main functions of the Flight Management System are to allow customers to book flights and allow the airline managers to manage the various aspects of the system effectively and efficiently.

For customers and travel agencies, the Flight Management System allows them to perform flight bookings and account management through following main functions:

* List available flights with details about each flight such as destination, origin and price
* Make flight bookings and allow payment by credit card or frequent flier points

For the staff and managers, the Flight Management System allows them to perform flight management services through the following main functions:

* Edit flights that the airline can take and all aspects of a flight including routes, planes, schedule and ticket prices
* Edit services that are available on the flights including availability and prices
* Cancel flights and all bookings that were made for that flight
* Print summary reports
* Manage customer and travel agency accounts including seat reassignment, flight reassignment, customer watch/no-fly list management and account closure

A system administrator controls all aspects of the system through the following main functions:

* Manage all user accounts including manager, customer and travel agency accounts
* Maintain the system through the various system configuration settings

The functionalities listed here are centered on the business needs and requirements of the airline that requested this system. In a further section of this document, these functionalities will be subdivided into smaller parts and be covered in more detail. The functionalities that make up the Flight Management System are aimed to make tasks and transactions simpler and more convenient.

## User Characteristics

There exist three main users of the Flight Management System that are the customers and travel agencies, system managers and system administrator.

* Customers and travel agencies need to have a basic understanding of how to use the system
* System managers should have strong working knowledge of the features of the system that they have control over
* System administrator should have strong knowledge on how a flight management system is supposed to work, and is able to install and deploy the system

## Constraints

The system should obey and satisfy the following constraints:

* Authentication: The system should only allow users to login when the right email and password and entered
* Access Control: The appropriate access rights should be given to the various users of the system. (Eg: Customers should not be allowed to edit flights)
* Back up and recovery: System files should be easily recoverable through back up in the event of data corruption or data loss
* The system must be developed by June 2015
* The core of the system must be developed using either Java or C++ programming languages

## Assumptions and dependencies

All potential users must have an existing email address.

# Specific Requirements

Each requirement specified in this section of the Flight Management System, whether it is a functional or non-functional one, is categorized into three main groups:

* Critical: Requirements of highest importance. These requirements are core functionalities of the Flight Management System and must be implemented.
* Essential: requirement of second most importance. These requirements should be implemented following all critical functionality.
* Optional: Requirements of lowest importance. Optional requirements are enhanced functionalities of the Flight Management System. These requirements should only be implemented after all critical and essential requirements are implemented.

## 3.1 Functional Requirements

### Profile Subsystem

The Flight Management System’s Profile Subsystem is responsible for managing all users profiles within the system.

#### Administrator Side

This section describes functionality relating to the Administrator of the Flight Management System. The Administrators abilities include manager and staff profile creation, modification and removal of these profiles.

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.1\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the administrator to create staff profiles (Manager/Normal Staff) | | |
| **Rationale:** The airline requires normal staff and management profiles to ensure smooth operation of the Flight Management System. A staff profile includes the following details –   * User name * Password * Name * Domain (Permissions within the system) | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The Administrator can successfully create staff profiles | | |
| **Dependencies:** None. | | |
| **Classification:** Critical | | |
| **History:** Created by Michael Kong on 10/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.1\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the administrator to modify staff profiles (Manager/Normal Staff) | | |
| **Rationale:** Staff members may need passwords to be reset | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The Administrator can successfully modify a staff profile | | |
| **Dependencies:** Staff profile must exist. Refer to F\_3.1.1.1\_01. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 10/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.1\_03 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the administrator to remove staff profiles (Manager/Normal Staff) | | |
| **Rationale:** Airline may require staff profile to be removed from the system | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The Administrator can successfully remove a staff profile | | |
| **Dependencies:** Staff profile must exist. Refer to F\_3.1.1.1\_01. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 10/4/2015 | | |

#### User Side

This section describes functionality relating to all users within the system. These users include customer, travel agent, administrator, normal staff and management.

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.2\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow users (customer/travel agent) to create profiles. A profile consists of the following details –  Customer   * Title * First Name * Last Name * Gender * Date of Birth * Phone Number * Email Address (user name) * Password * Address (street, state, city, country) * Credit Card Type * Credit Card Number * Frequent Flyer Point Balance * Passport Holder Status (True/False) * No Fly Status (No Fly/Watch/NULL) * Name of Travel Agent that made Booking (optional) | | |
| **Rationale:** Users require a profile to use Flight Management System | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Users can successfully create a profile | | |
| **Dependencies:** None. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 10/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.2\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow users (customer/travel agent) to modify their profiles | | |
| **Rationale:** Users may need to update or change their details within the system | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Users can successfully modify their profile | | |
| **Dependencies:** User must have an existing profile. Refer to F\_3.1.1.2\_01. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 10/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.2\_03 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow all users to change their password | | |
| **Rationale:** Users may want to or be required to change their password | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Users can successfully change their profile | | |
| **Dependencies:**   * User must have an existing profile. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 10/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.2\_04 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow users (customer/travel agent) to remove an existing profile. User should be logged out immediately following removal of profile. | | |
| **Rationale:** Users may want to remove their profile from the system | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Users can successfully remove their profile | | |
| **Dependencies:**   * User must have an existing profile. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.2\_05 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow all users to login using a user name and password. | | |
| **Rationale:** Users need to login to use the Flight Management System | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Users can successfully login to the system after entering correct credentials | | |
| **Dependencies:** User must have an existing profile. Refer to F\_3.1.1.2\_01. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

#### Profile Manager Side

This section describes functionality relating to a Profile Managers interaction with the Profile Subsystem.

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.3\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a Profile Manager to remove user profiles (customer/travel agent) from the system. | | |
| **Rationale:** Profile Manager may be required to remove a profile from the system | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Profile Manager can successfully remove a profile | | |
| **Dependencies:**   * Profile must exist. Refer to F\_3.1.1.2\_01. * Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.1.3\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a Profile Manager to modify a customer profile’s no fly status. | | |
| **Rationale:** Profile Manager may be required to change the no fly status of a profile | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Profile Manager can successfully modify no fly status of a profile | | |
| **Dependencies:**   * Profile must exist. Refer to F\_3.1.1.2\_01. * Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

### Reservation Subsystem

#### Reservation Manager and Staff Side

This section describes functionality relating to a Reservation Manager and staff’s interaction with the Reservation Subsystem.

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.1\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (Reservation Manager/normal staff) to transfer a customer from one flight to another. | | |
| **Rationale:** Customer may require flight change. Customer may need to change flights due to flight cancellation. | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** User can successfully transfer customer to different flight | | |
| **Dependencies:**   * Profile must exist. Refer to F\_3.1.1.2\_01. * Staff member must be logged into the system. Refer to F\_3.1.1.2\_05. * Booking must exist. Refer to ... | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.1\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (Reservation Manager/normal staff) modify customer seat selection. | | |
| **Rationale:** Reservation Manager | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** Profile Manager can successfully modify no fly status of a profile | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * Staff member must be logged into the system. Refer to F\_3.1.1.2\_05. * Booking must exist. Refer to F\_3.1.2.2\_01. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

#### Booking Process

This section describes functionality relating to the booking process for a customer and travel agent.

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (customer/travel agent) to make a flight booking. A booking should include the following –   * First Name * Last Name * Date of Birth * Flight Id * Travel Class (Economy/Business/First) * Seat Number * In-Flight services (optional) * Ticket Price * Services Price (can be zero) * Total Price | | |
| **Rationale:** User wishes to book a flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** User can successfully book a flight | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. * User must be able to select a seat. Refer to F\_3.1.2.2\_04. * User must be able to view booking summary. Refer to F\_3.1.2.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (customer/travel agent) to view and select a flight. Flights in with departure dates and times in the past should not be listed. | | |
| **Rationale:** User wishes to view and select a potential flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system should prompt the user for an origin and destination. This should be followed by the system listing all available flights from origin to destination entered. User can successfully view and select a flight. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_03 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (customer/travel agent) to select a travel class. Travel classes include –   * Economy Class * Premium Economy Class * Business Class * First Class   Not all classes are not available on all flights. | | |
| **Rationale:** User wishes to select an appropriate travel class that meets their comfort level and budget | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** User can successfully select a travel class | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_04 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow a user (customer/travel agent) to view and select a seat. | | |
| **Rationale:** User wishes to view and select a seat on a flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system should show available seating on flight and prompt the user for a seat number. User can successfully view and select a seat. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 11/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_05 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should display a booking summary to the user (customer/travel agent). For details of what a booking summary should include refer to F\_3.1.2.2\_01. | | |
| **Rationale:** User wishes to view and select a seat on a flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system should show available seating on flight and prompt the user for a seat number. User can successfully view and select a seat. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. * User must be able to select a seat. Refer to F\_3.1.2.2\_04. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_06 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow user (customer/travel agent) to view and select in-flight services. Any services selected should be added to booking. | | |
| **Rationale:** User wishes to select in-flight services for a flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system should show available services for flight and prompt the user for a selection, if any. User can successfully view and select a in-flight services. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. * User must be able to select a seat. Refer to F\_3.1.2.2\_04. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

|  |  |  |
| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_07 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow user (customer/travel agent) to view and select in-flight services. Any services selected should be added to booking. | | |
| **Rationale:** User wishes to select in-flight services for a flight | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system should show available services for flight and prompt the user for a selection, if any. User can successfully view and select in-flight services. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. * User must be able to select a seat. Refer to F\_3.1.2.2\_04. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_08 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should alert a user (customer/travel agent) when no seats are available in selected travel class. | | |
| **Rationale:** Customer should not be able to select a travel class for a flight where no seats area available | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The system should display an error message to the user communicating the fact that no seats are available in the selected class. User is successfully notified of seat unavailability. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. * User must be able to view and select a flight. Refer to F\_3.1.2.2\_02. * User must be able to select a travel class. Refer to F\_3.1.2.2\_03. | | |
| **Classification:** Critical | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_09 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should not allow a user (customer/travel agent) to book a flight when customer no fly status is set to “No Fly”. | | |
| **Rationale:** Law enforcement need restrict people from leaving the country | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The system should display an error message to the user communicating the fact that they cannot book. User cannot book a flight. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.2\_10 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should warn a user (customer/travel agent) that wishes to book an international flight when customer passport holder status is set to false. | | |
| **Rationale:** User needs be warned that they are not a current passport holder, as international travel requires a valid passport. | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The system should display a warning message to the user communicating the fact that they are not current passport holder book. User is successfully notified. | | |
| **Dependencies:**   * User profile must exist. Refer to F\_3.1.1.2\_01. * User must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

#### Flight Manager Side

This section describes functionality relating to Flight Manager’s ability to interact with Reservation Subsystem.

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| **Requirement #:** R\_3.1.2.3\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should provide the Flight Manager with domain specific options at the command line upon login to the system. These options should include –   * Modify Routes – Refer to F\_3.1.2.3\_02 * Modify Airports – Refer to F\_3.1.2.3\_03 * Modify Fleet – Refer to F\_3.1.2.3\_04 * Modify Schedule – Refer to F\_3.1.2.3\_05 | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove details pertaining to airline flights. | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully view and select domain specific options | | |
| **Dependencies:**   * Flight Manager profile must exist. Refer to F\_3.1.1.1\_01. * Flight Manager must be logged into the system. Refer to F\_3.1.1.2\_05. * Flight Manager must be able to select Modify Routes. Refer to F\_3.1.2.3\_02. * Flight Manager must be able to select Modify Airports. Refer to F\_3.1.2.3\_03. * Flight Manager must be able to select Modify Fleet. Refer to F\_3.1.2.3\_04. * Flight Manager must be able to select Modify Schedule. Refer to F\_3.1.2.3\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.3\_02 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the Flight Manager to modify routes for the airline. These details include –   * Origin (IATA) * Destination (IATA) * Codeshare (Y/Null) * Number of Stops | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove routes | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully modify routes | | |
| **Dependencies:**   * Flight Manager profile must exist. Refer to F\_3.1.1.1\_01. * Flight Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.3\_03 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the Flight Manager to modify domestic and international airport records. These details include –   * Airport Id Number * Airport Name * City * Country * IATA Code * Latitude * Longitude * Altitude * Time Zone * DST What does this mean? * TZ Database Time Zone | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove airports | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully modify airports | | |
| **Dependencies:**   * Flight Manager profile must exist. Refer to F\_3.1.1.1\_01. * Flight Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.3\_04 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the Flight Manager to modify the airlines fleet of aircraft. These details include –   * Aircraft Name * Total in Service * First Class Seats Available * Business Class Seats Available * Premium Economy Seats Available * Economy Class Seats Available * Total Seats Available | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove aircraft | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully modify fleet | | |
| **Dependencies:**   * Flight Manager profile must exist. Refer to F\_3.1.1.1\_01. * Flight Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| --- | --- | --- |
| **Requirement #:** R\_3.1.2.3\_05 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the Flight Manager to modify the flight schedule. These details include –   * Flight Id * Aircraft Number * Route Number * Departure Date and Time (EST) * Arrival Date and Time (EST) | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove flights in the schedule | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully modify flight schedule | | |
| **Dependencies:**   * Flight Manager profile must exist. Refer to F\_3.1.1.1\_01. * Flight Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

### Services Subsystem

#### Services Manager Side

This section describes functionality relating to the Services Manager’s interaction with the Services Subsystem. These include modification of in-flight services available for purchase.

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| **Requirement #:** R\_3.1.3.1\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should provide the Services Manager with domain specific options at the command line upon login to the system. These options should include –   * Modify Services – Refer to F\_3.1.3.1\_02 | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove details pertaining to airline flights. | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully view and select domain specific options | | |
| **Dependencies:**   * Services Manager profile must exist. Refer to F\_3.1.1.1\_01. * Services Manager must be logged into the system. Refer to F\_3.1.1.2\_05. * Services Manager must be able to select Modify Services. Refer to F\_3.1.3.1\_02. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

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| **Requirement #:** R\_3.1.3.1\_01 | **Requirement Type:** Functional | **Use Case ID**: None |
| **Description:** The system should allow the Services Manager to modify the in-flight services available for purchase from the airline. These details include -   * Item Name * Cost (AU) * Availability (International/All) | | |
| **Rationale:** Flight Manager will need to manually add, modify and remove aircraft | | |
| **Source:** Client – Daniel Avery | | |
| **Fit Criterion:** The Flight Manager can successfully modify fleet | | |
| **Dependencies:**   * Services Manager profile must exist. Refer to F\_3.1.1.1\_01. * Services Manager must be logged into the system. Refer to F\_3.1.1.2\_05. | | |
| **Classification:** Essential | | |
| **History:** Created by Matthew King on 12/4/2015 | | |

### Reporting Subsystem

## Non-Functional Requirements

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| --- | --- | --- |
| **Requirement #:** NF\_01 | **Requirement Type:** Performance | **Use Case ID**: None |
| **Description:** The system should be capable of running 24 hours per day, 7 days per week with the exception of scheduled maintenance. | | |
| **Rationale:** Users require access to the system around the clock | | |
| **Source:** Client – Hoa Dam | | |
| **Fit Criterion:** The system provides access to users anytime | | |
| **Dependencies:** None. | | |
| **Classification:** Mandatory | | |
| **History:** Created by Matthew King on 13/4/2015 | | |