**SOFTWARE REQUIREMENT SPECIFICATIONS**

**AIRPORT MANAGEMENT SYSTEM**

**1.INTRODUCTION**

**1.1 PURPOSE**

The purpose of this document is to describe the Airport Management System. It contains the functional, behavioural and non- functional requirements of the project and contains guidelines for system engineers and designers to start working on this project.

**1.2 SCOPE**

The airport management system is basically an all-in-one mobile application for your complete flight experience, from home to the airport. It enables the users to get details regarding the timings of their flight, the boarding gate, traffic conditions from their residence to the airport, to call for assistance and also regarding the in-airport amenities such as restaurants, shopping centres etc.

**2. PRODUCT FUNCTIONS**

**2.1 ADMINISTRATOR**

The admin should be able to –

* Modify information about the flight timings ie. Boarding time, departure time, flight delays if any, approximate waiting time for baggage and security check etc.
* Modify details about flight such as flight number
* Contact the users in case of flight cancellations or other issues
* Get information about users who have upcoming flights
* Add and edit information about airport amenities
* Send reminders or late warning to users with upcoming flights
* Respond to any assistance calls by the user and further contact higher authorities if needed

**2.2 NORMAL USERS (PASSENGERS)**

The passengers should be able to –

* Get all required details about their flights
* Get information about traffic conditions from their residence to the airport
* Change their personal details such as contact number, name, email address etc.
* Should be able to contact airport authorities for assistance
* Get information about restaurants, shopping centres etc at the airport
* Give feedback or complaints regarding the application to the admin

**2.3 OPERATING ENVIRONMENT**

This is a mobile based application and should be available on all major platforms such as IOS, Android, Windows, Blackberry etc.

**2.4 USER CHARACTERISTICS**

The administrators are airport authority personnel, who are expected to have knowledge about the internal modules of the system and should be able to rectify small problems that may arise due to disk crashes, power failures or other catastrophes. The normal users are passengers who have upcoming flights, and are assumed to have basic knowledge about mobile phones and applications.

**2.5 DESIGN AND IMPLEMENTATION CONSTRAINTS**

* Information must be stored in a database accessible by the airport authorities
* MySQL will be used as SQL engine and database
* The system should be active 24\*7
* The users may access their accounts from any mobile phone, provided it has the mobile application and an active internet connection
* Users must be allowed to log into their accounts provided they have the correct username and passwords

**3. EXTERNAL INTERFACE REQUIREMENTS**

**3.1 USER INTERFACES**

* LOGIN INTERFACE : The user should be able to login using his username and details, if already registered. In case of incorrect username or password, an error message should be displayed. Unregistered users should be able to register by entering their details.
* CATEGORIES : The user should be able to the browse through the different categories in the app, such as the flight details section, Personal Info section, Call for assistance section, Traffic details section and the amenities section
* SEARCH INTERFACE: The user should be able to search and browse through the availability of food and shopping centres at the airport
* ADMIN CONTROL PANEL : The admin should be able to check details of passengers and update any required information about the flight.

**3.2 HARDWARE INTERFACES**

No extra hardware required except a smartphone with active an internet connection.

**3.3 SOFTWARE INTERFACES**

Only the mobile operating system is required

**4. FUNCTIONAL REQUIREMENTS**

**4.1 PASSENGERS**

* Register to the application
* Get traffic details
* Call for assistance

**4.2 ADMIN**

* Remove users if required
* Add or edit information about flights
* Add or edit details about airports
* Contact users if required

**4.3 COMMON FUNCTIONS**

* Login
* Search for flight details

**5. NON-FUNCTIONAL REQUIREMENTS**

* ERROR HANDLING : The system should be able to handle expected and unexpected errors in ways that prevent loss in information and long downtime periods
* PERFORMANCE REQUIREMENTS : The system should be able to handle a large number of users without any negative effects on the speed and functionality of the system.
* SAFETY REQUIREMENT : The application should not be the cause of harm to the users
* SECURITY REQUIREMENTS : The system should use a secured database. The passengers should be able to view information but not edit it, except for their personal info. The system will have different types of users and both users shall have a specific set of constraints.