Vision Document for Flight Scheduling System

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1. Introduction

In a commercial airline, the flight schedule is a focal point of the planning process. It is aimed at optimizing the deployment of the airline's resources to meet the demand and maximize profits. Having an effective and efficient resource management system like scheduling system for flight has a big role in increasing companies' profit revenue and satisfying customer's demand on spot.

Recognizing the central nature of the schedule, or professionals both within and outside of airlines have been on the development of methods for obtaining optimal schedule since the 1950s. The work has been discussed extensively in symposium and study group meetings of AGIFROS (Airline group of the international federation of Operational Research Society) kindred of the society of IFORS and at other professional society meetings. Much of the early works were on a model which can readily be formulated mathematically and solved by standard optimization algorithms.

In a modern era, the technologies must match with customer's demand, especially on such management systems. Now a day's people are global citizens and work from place to place, for them to move, the preferred means of transportation is an airline industry. This industry must be modern and feature with technology for the people to uses as a delicate means of getting way to their works and purposes. The reason for building a flight schedule is to make the process smooth and comfortable and determine a concurrent flow for the passengers, cargo and aircraft.

2. Positioning

2.1 Problem Statement

The problem of	*Scheduling landing and take-off of flights*
Affects	*Airlines, Airports*
the impact of which is	*Flights take-off or landing is indeterminate due to external reasons*
a successful solution would be	*Manage inbound and outbound flights*

	Allocate slots for landing or take-off on-demand

2.2 Product Position Statement

For	*Airports*
Who	*Allocate slots for landing and takeoff*
The Flight scheduling system	*is an application*
That	*Manages inbound and outbound flights*
Unlike	*A list of pre-scheduled flights that cause delays due to unforeseeable causes*
Our product	*Is real-time accommodating flights as they are ready to take-off or land*

3. Stakeholder Descriptions

3.1 Stakeholder Summary

Name	**Description**	**Responsibilities**
Airline Admins	Airline admin add, edit or delete runways.	Airline admin are responsible for configuring or setting up the system.
Air traffic controllers (ATC)	Air traffic controllers add, edit or delete flights from the system.	Air traffic controllers are responsible for updating the flight information.
Developers	Developers develop the system based on given document.	Developers are responsible for developing the system, fixing the bugs, and maintaining the system's availability.
Testers	Testers use jUnit tool to test system or integration test.	Testers are responsible for integration testing.

3.2 User Environment

For this system to work properly, laptops and computers with the internet connection are required.

4. Product Overview

4.1 Product Perspective

This product perspective is to provide the ability for the multi-user to access and manage the flight scheduling.

4.2 Assumptions and Dependencies

The user has an active internet connection and has access to view the system.
The user has the operation system with has access to the internet browser and support Java runtime application.

4.3 Needs and Features

No	Problem	Need	Priority	Features	Planned Release
Air traffic controller (ATC)					
1	Aircraft to send the landing request or take-off request.	Need to assign the slots accordingly.	High	ATC assigns the space.	
2	Flight information to be update.	Need to update the flight information.	High	ATC update the flight information.	

4.4 Alternatives and Competition

Traditional list of flights pre-planned to land or take-off from an airport as well open source software.

Strengths	Weaknesses
Easy to maintain	Not flexible as flight change schedules all the time
Free	Not maintained regularly

5. Other Product Requirements

Airport identification codes must be IATA standard codes.
The system depends on actual flights that make it to the airport and thus doesn't account for cancelled or re-routed flights.
The scheduling system runs on a local machine without need for internet etc.