Project Report

SOFT20091: Software Design & Implementation

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# 1. Overview

For this software implementation project, we decided to look at a system used by a small domestic airport that deals with arrivals and departures, seat allocations, emergency flight plans and other various features. The aim of the app will be to streamline and provide accurate, important information for flight administrators to ensure that emergencies are dealt with efficiently and safely and the day-to-day running of the airport runs smoothly.

## 1.1. Consideration of Requirements

The system will:

* Organise flight schedules
* Identify if landing zones are free or not (if not free, a message will be sent to pilot/other members of the system)
* Stores all relevant plane data, including passenger capacity, seat allocations
* Monitor departures and arrivals. The two types of information should be displayed in different monitors across the screens in the airport
* To identify where planes coming from/destination/flight duration/landing location
* Provide search options - allow the user to search for flight or passenger info, depending on their level of access
* Display seat allocation (if GUI display booked seats in red - users can’t click on them and display non book seats in green)
* Handle security - check passengers identify, if ok let them pass through
* Provide users services - customers will be able to login, book seats, view flight information, go through security
* Passengers and security admin have different levels of access

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# 2. Requirements

## 2.1. UML Use Case Diagrams

## 2.2. UML Activity/Sequence Diagrams

## 2.3. UML Class Diagrams

# 3. Approach

## 3.1. SDLC

The software development life cycle was created using Microsoft Project in the form of a Gantt chart. The team decided that this was the best option as the software not only allows the visualisation of how the project should be coming along at all stages but also has resource allocation and management that gives an accurate and realistic view of how the project will use assets.

## 3.2. Data Structure

## 3.3. Algorithm

# 4. Implementation

# 5. Results

# 6. Conclusion