



## **SE 204.3 – Development of Enterprise Applications 1**

### **Group Assignment**

### **Final Report 01**

**Submission Date: 24/05/2022**

### **Group Members**

RD MALLIKARACHCHI	– 21377
DTA EDIRISINGHE	– 21842
KMK CHAMIKA	– 21237
MWN NIMTHARA	– 21899
HT THRIMAWITHANA	– 21526
DMLD PERERA	– 21294

## Table of Contents

01.	Acknowledgment .....	2
02.	Introduction.....	3
03.	Executive Summary .....	4
04.	Requirements .....	5
05.	Objectives of the System.....	6
06.	UML Model Diagram .....	8
07.	Website Map .....	9
08.	Flow Chart .....	10
09.	Work Load Matrix .....	11

## **01. Acknowledgment.**

First and foremost, we are very beholden to the course facilitators of the National School of Business Management, and Mr. Chaminda Wijesinghe the module lecturer of Development of Enterprise Application, for the supervision, constant counsel while providing the necessary information and resources, and addition, encouraging us to complete the project with great satisfaction.

Ultimately, we express our indebtedness to all the people who have willingly helped and encouraged us throughout the project. This project has taken a lot of time and effort, completing this project would not have been possible without the support and guidance of each individual and we would like to convey our gratitude to all the co-workers of the project for accomplishing the work.

## **02. Introduction**

In the current world, with the rise of technology, most work has become automated. It helps organizations to do their work easier and faster. Also, it saves time and improves the efficiency and effectiveness of the work.

Phoenix Airline Pvt is a small airline with an online flight reservation system. The team is to develop a web-based application that will help to manage the airline service process which includes upgraded user, ticket, and staff management systems. As a result of this automated web application, Phoenix Airlines will be able to manage their airline process accurately and it allows users to create their user accounts solely and booked and buy tickets through the online application.

In this report, the author and the team develop this automated web-based application with UML model diagrams and a prototype of the web application.

### **03. Executive Summary**

The author and team intend to design and develop an automated aviation system for **Phoenix Airline PVT** in-order to meet the requirements provided by the course facilitators of the DEA module.

The author began designing and developing the key areas of the system by identifying, defining, and constituting them. The report states the following areas:

#### **1. Detailed design.**

- System interfaces.

Interfaces for pages of each process and function.

- Design model.

The author and team provide a basic flow chart for the web application with all the diagrams.

- Databases and Forms.

Author and the team design and provide all the databases, and forms required for the application with the necessary SQL Data.

The author used basic database development software and some third-party web development software for the development of the above areas.

#### **2. Process and procedures of Phenix Airline PVT LTD.**

- User management.

- Flighty management.

- Ticket management.

#### **3. Prototype of the system with the review panel.**

The Author and team provide all the necessary codes and used commands for more reference to the respective parties.

## 04. Requirements

Phoenix Airline PVT is one of the well-known airlines in today's era. The organization has a manual process of user management, flight management, and ticket management. So this project's target is to design and develop an automated system covering all the processes for a better and more user-friendly online flight booking system. Three types of users are using the automated system: staff, clients, and admin. Below are the requirements of the project which are identified.

- **Registration and authentication:**  
All the clients and the staff can create an account using the automated system and the admin can add staff members but the accounts of the staff members must be approved by the admin.
- **Update of the flight management process:**  
The grade one staff can only update and delete some information and also the grade two staff can only view the information and add new flight details.
- **Flight sorting by searching, filtering, and chatting:**  
The clients can search and find flight information by searching through the website, and also, they can get the help of the staff by using the chat facility.
- **Online Reservation:**  
After booking tickets, the clients can check their reservation for the seats and if there are updates, those can also be done.
- **Facility to view the profile information:**  
By login in, the clients can update their profile and those changes can be monitored by the staff.
- **User management:**  
In this process, the admin can monitor all the activities of the staff and the clients, as well as the admin, can view all the information regarding the users and can update, check or block the user accounts.

### Dashboards:

- The Admin Dashboard can be accessed only by the admin.
- Admin username and passwords are generated to the databases and with the correct username and password, he can access the admin dashboard.
- The Staff dashboard can be accessed by the staff.
- With the @staff01 and @staff02 username property, grade 01 staff and grade 02 staff will be directed to the staff 01 dashboards and staff 02 dashboards accordingly.
- Both staff members and the clients can be accessed the Clients' dashboard.

## **05. Objectives of the System**

When the organization expands its operations from manual systems to automated systems, identifying the objectives is very vital for every aspect of the organization. The author and the team identify many objectives in development, technical, and user perspectives.

### **General Objectives**

- The main purpose of this is to convert the manual process of the phoenix airline system into an automated system for ease of use.

### **Specific Objective.**

#### **❖ Development objective.**

##### **01. Develop the first phase of the application.**

In this phase, the team hopes to come up with a basic explanation, diagrams, and framework of the system.

##### **02. Develop the second phase of the system.**

The team hopes to develop the system including all the required components, interfaces, databases, and forms of the system.

##### **03. Meet the deadlines.**

The author and the team expect to meet all the phase deadlines with an effective outcome and conduct successful testing of the system.

#### **❖ User Objectives.**

##### **01. Create an account and reserve seats and tickets more easily.**

That allows users who can create an account by themselves and operate it without interference. In addition to that reserve seats and book flight tickets by themselves through an online platform.

## **02. Optimize the responsibilities and work of staff.**

Optimize the working capacity of the staff by restricting access, delegating authorities, minimizing the possibility of incidences of errors and making it easier for the staff to do the relevant work using the ID or email according to the grade.

## **03. Monitor all the activities of the system.**

Enable admin to monitor all the staff and user activities effectively and efficiently.

### **❖ Technical objective**

#### **01. Increase speed, security, and accuracy of the work.**

The team is supposed to increase the processing speed and more accuracy with all the activities and it needs to operate with a high-security level for all kinds of users and their activities.

#### **02. The system must be consistent with user-friendly technologies.**

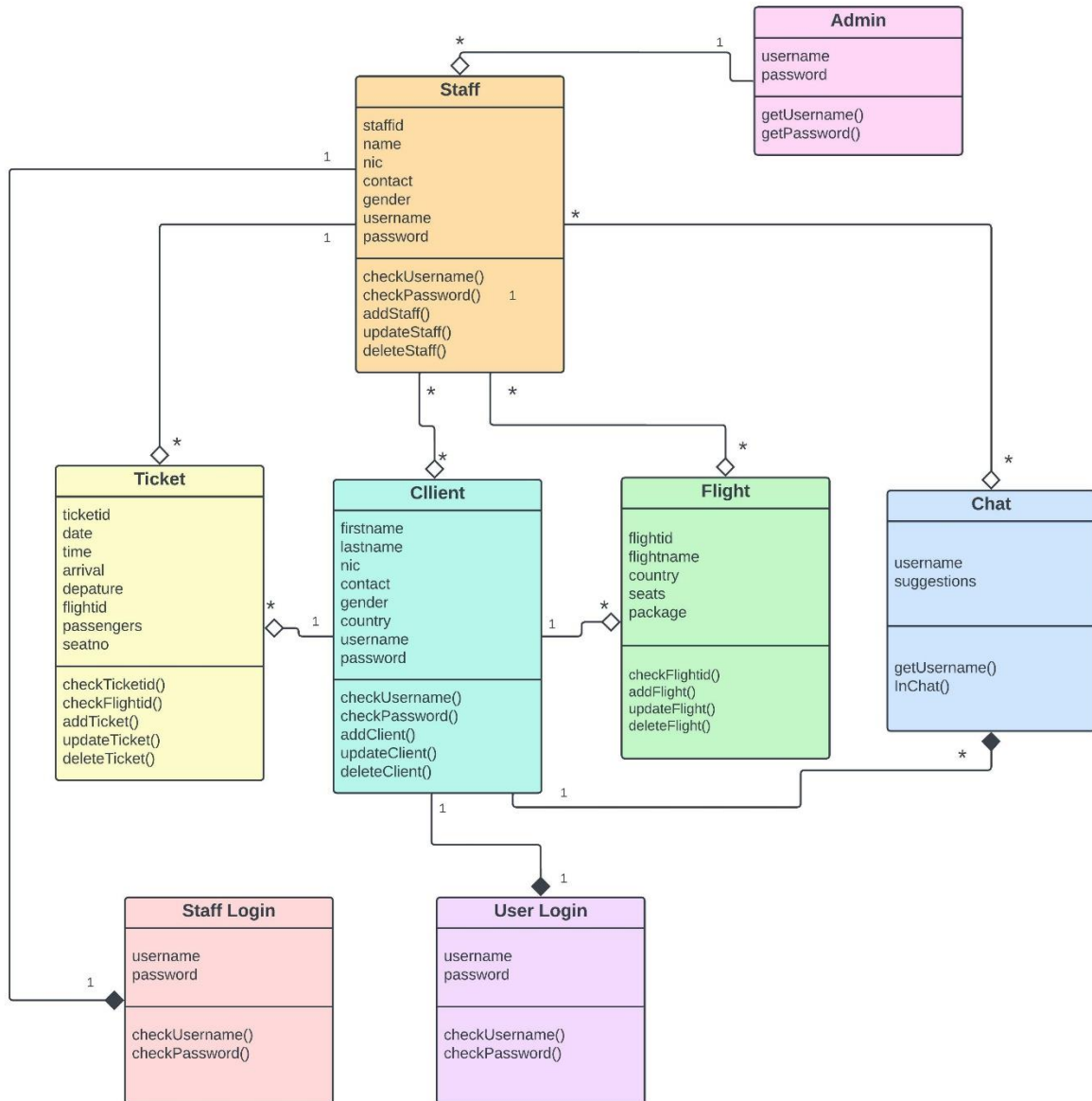
Every user should be able to understand the operations of related activities by simply using it even if they don't have enough computer efficiency.

#### **03. High efficiency and effectiveness of the technologies.**

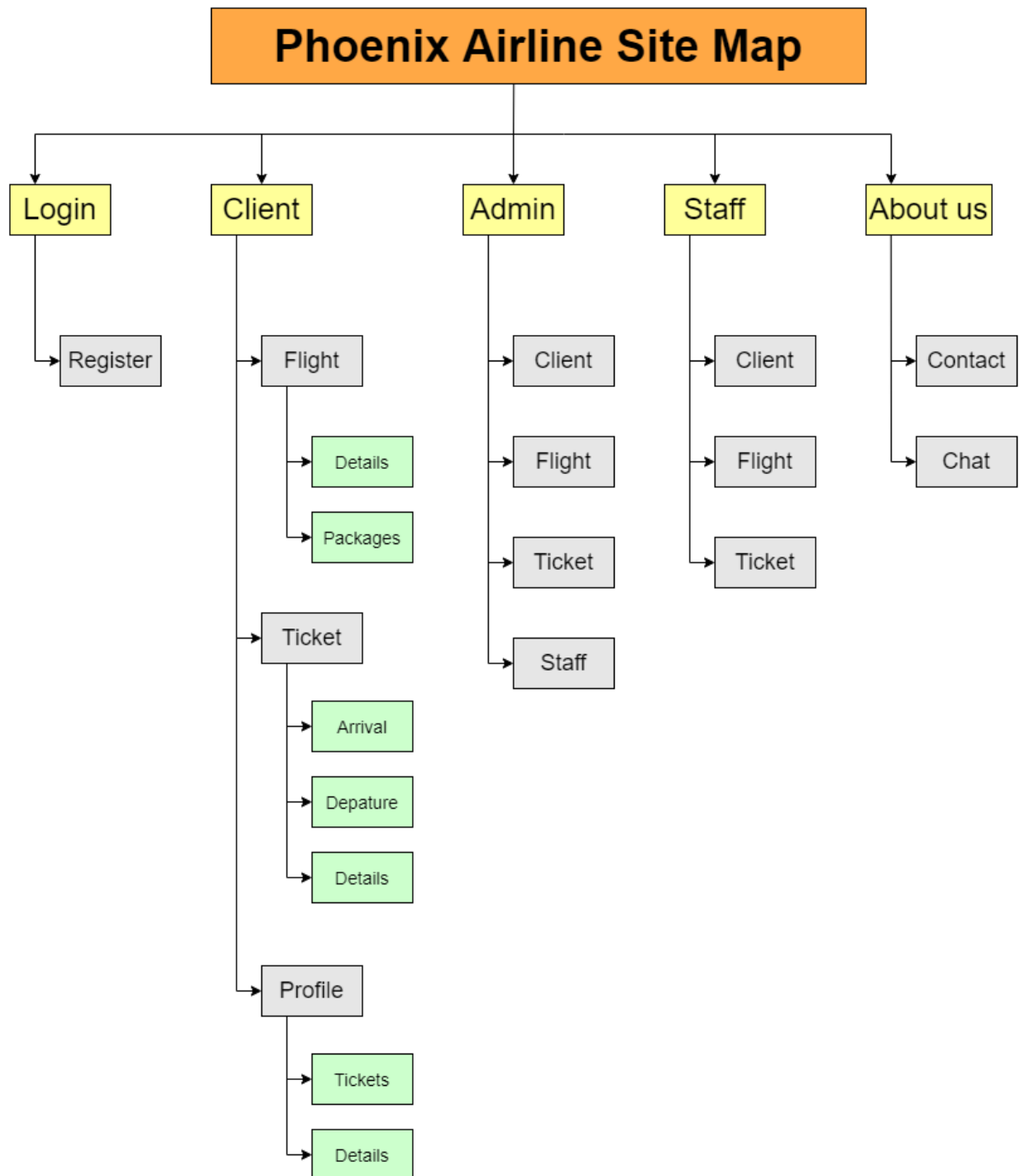
Use highly approved and standard technologies to optimize the system and give output effectively and efficiently. The system must be comfortable with multiple users and large scales activities at a time. Also, it should give output with minimum time and without any lag or interference.



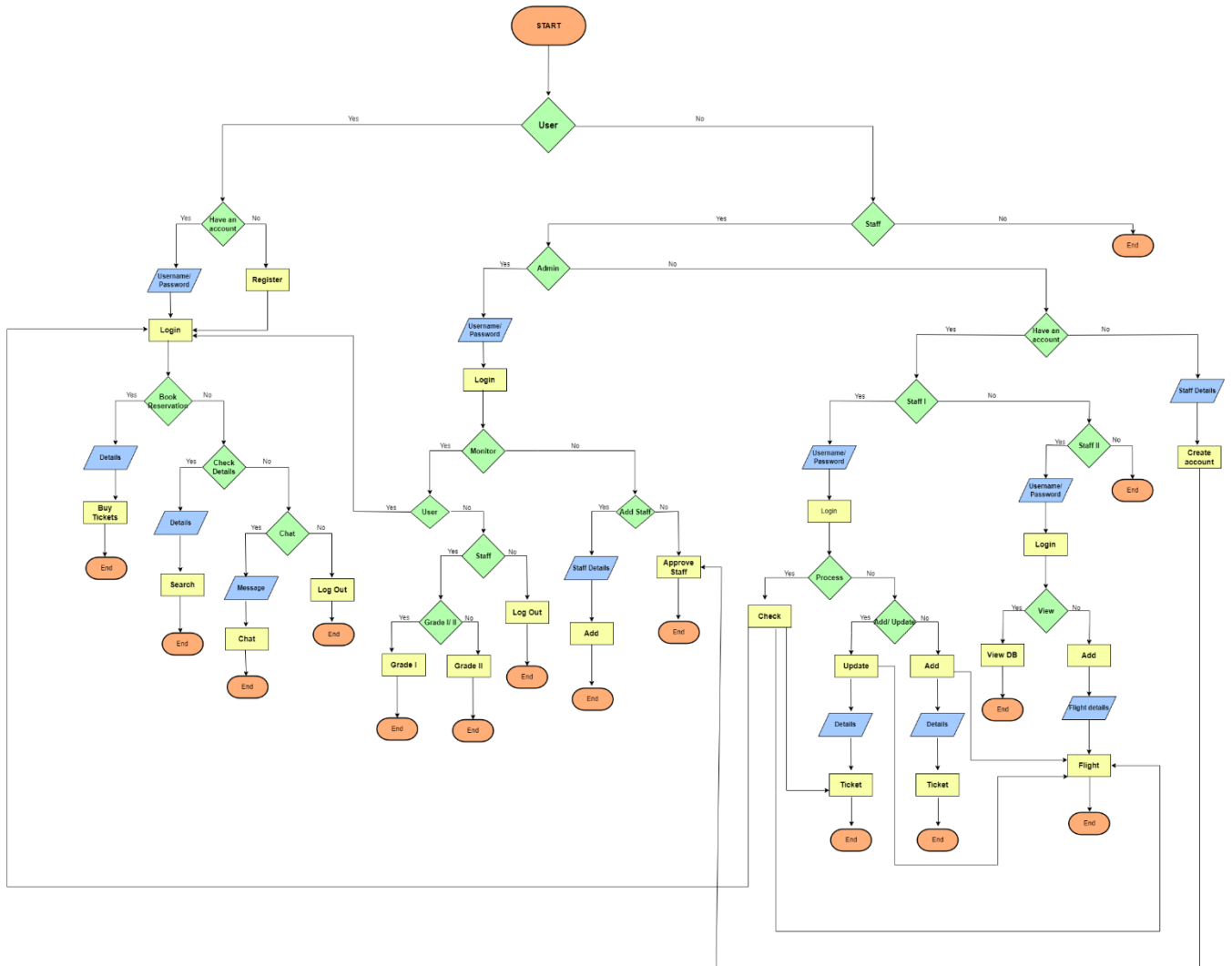
## 06. UML Model Diagram



## 07. Website Map



## 08. Flow Chart



## 09. Work Load Matrix

Student Name	Student ID	Work Load
RD MALLIKARACHCHI	21377	16.67%
DTA EDIRISINGHE	21842	16.67%
KMK CHAMIKA	21237	16.67%
MWN NIMTHARA	21899	16.67%
HT THRIMAWITHANA	21526	16.67%
DMLD PERERA	21294	16.67%