Software Requirements Specification (SRS)

for

Egypt Airline Company

Version 3.0

Prepared by Developers team:

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17/11/2019

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Revision History

Name	Date	Reason For Changes	Version
EAC	1/11/2019	Update information of the software(Project purpose & Scope and Reference)	1.0
EAC	8/11/2019	Adding User Interfaces & class diagram & use case and activity diagram and functions	2.0
EAC	15/11/2019	Adding SSD & State Diagram & Domain Diagram & Object Diagram	3.0

1. Introduction

1.1 Purpose

Create a website for EAC,so that easier for customer to book tickets in which where he is…..

1.2 Project Scope

Two different area

- 1_The website for the EAC,just user and admin can use the application.

- 2_The desktop application in which the branch location is in, just employee and admin can use the application.

1.3 References

- Expedia
- Egypt airline company website
- Flynas
- Customers feedback

2. Overall Description

The SRS contains an analysis of the requirements necessary to help easy design.

2.1 Product Overview

The overall description provides interface requirements for the Airline Reservation system, product perspective, hardware interfaces software interfaces, product functions, user characteristics and other constraints.

2.2 Product perspective

2.2.1 Hardware interfaces

Hard disk: The database connectivity requires a hardware configuration with a fast database system running on high rpm hard-disk permitting complete data redundancy and back-up systems to support the primary goal of reliability.
The system must interface with the standard output device,keyboard and mouse to interact with this software.

2.2.2 Software interfaces

- Sql server 2015 for database
- Microsoft Visual Studio 2015

2.2.3 Operations

On the website

- The customer login and give the required information, Then can access to the application to book his ticket or modify another and give the way of payment…

On the desktop application

- The employee login to the application , and then can book ticket or modify one or cancel one

2.3 Product Features

As technology improving day to day,users needs are also increasing.so we have to update our applications time to time in order to satisfy the customers.These are the specifications which are not provided for now in the current version of EAC but which could be incorporated into future versions. Some of these need advanced technologies and interfaces with other systems. The EAC could be designed in future to enhance the existing capabilities or add entirely new ones.The assumptions and limitations of the EAC have been interspersed in the SRS to present the same in their proper context.

2.3 User Classes and Characteristics

There are three kinds of users for the EA{. One is the customer , the second is the administrator and the third is Employees . The customers do not need to have any prior training to use the system. However, instructions for making flight would be provided to them on the airline website. The employees would however need to be trained in order to use the system.The last is the administrator would manage all of these operations.

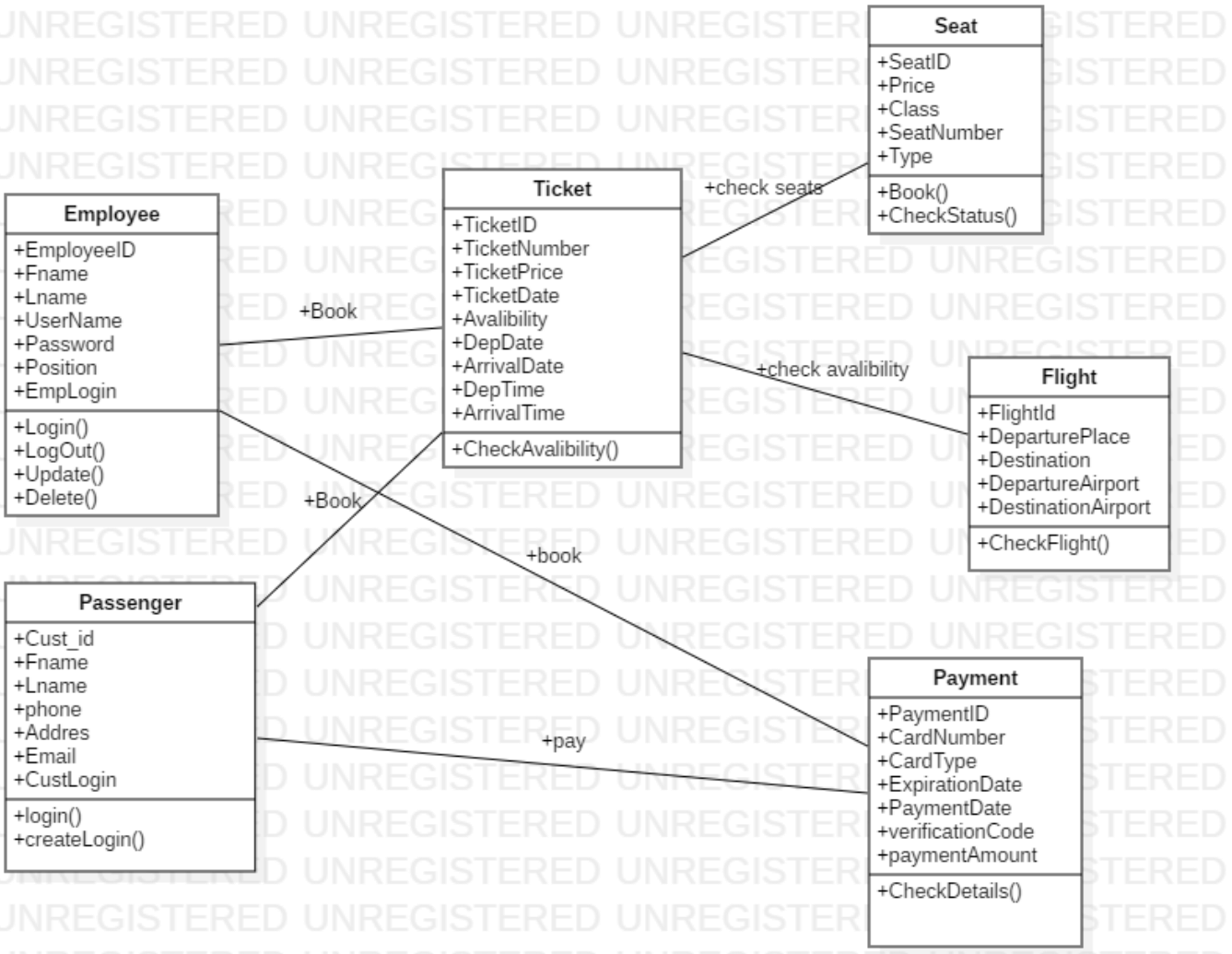
2.4 Operating Environment

The system will be operating on :
Windows operating system (windows 8.0 or higher)
Web browser

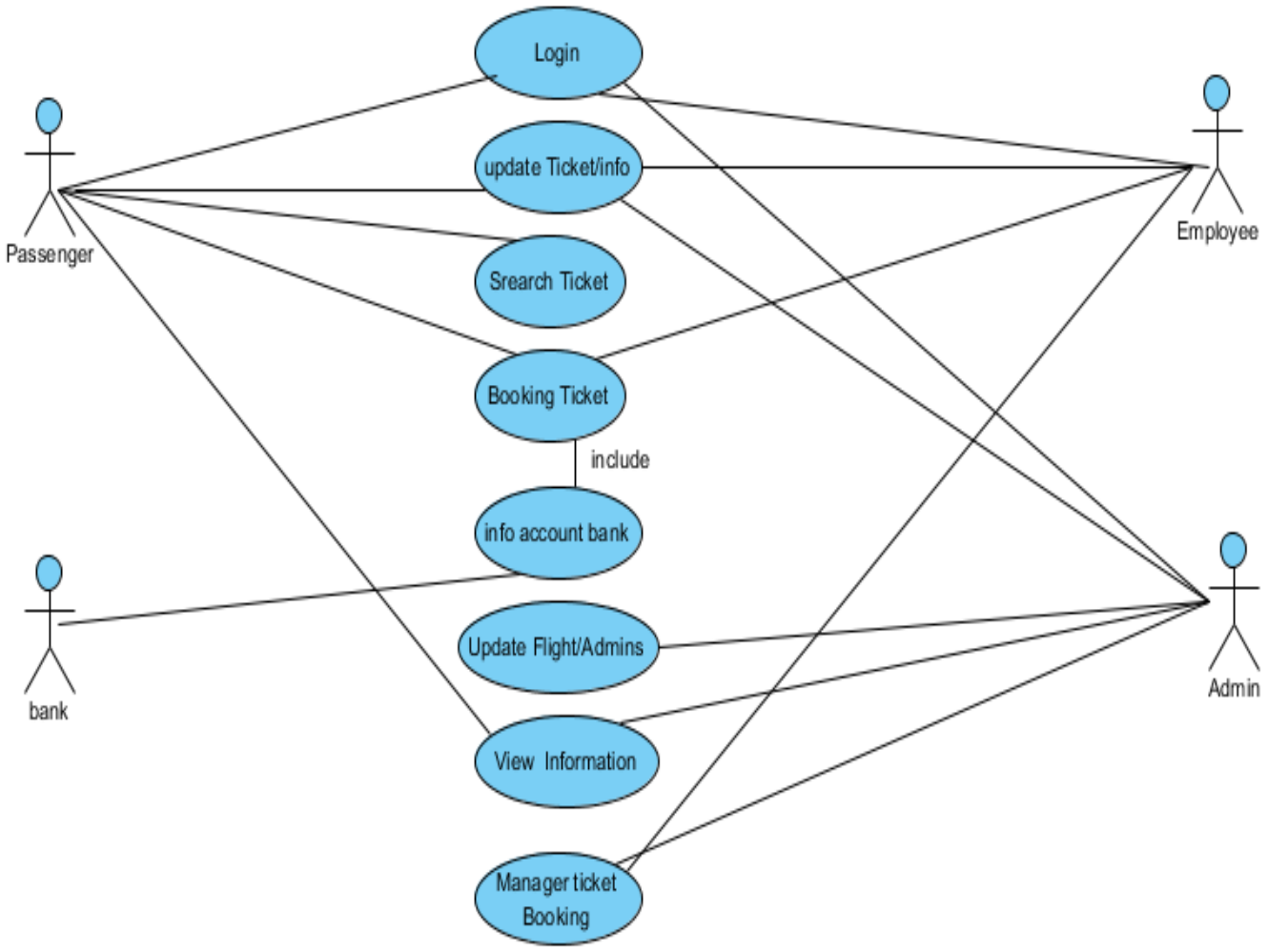
User Documentation

Download manual documentation

2.5 Class diagram

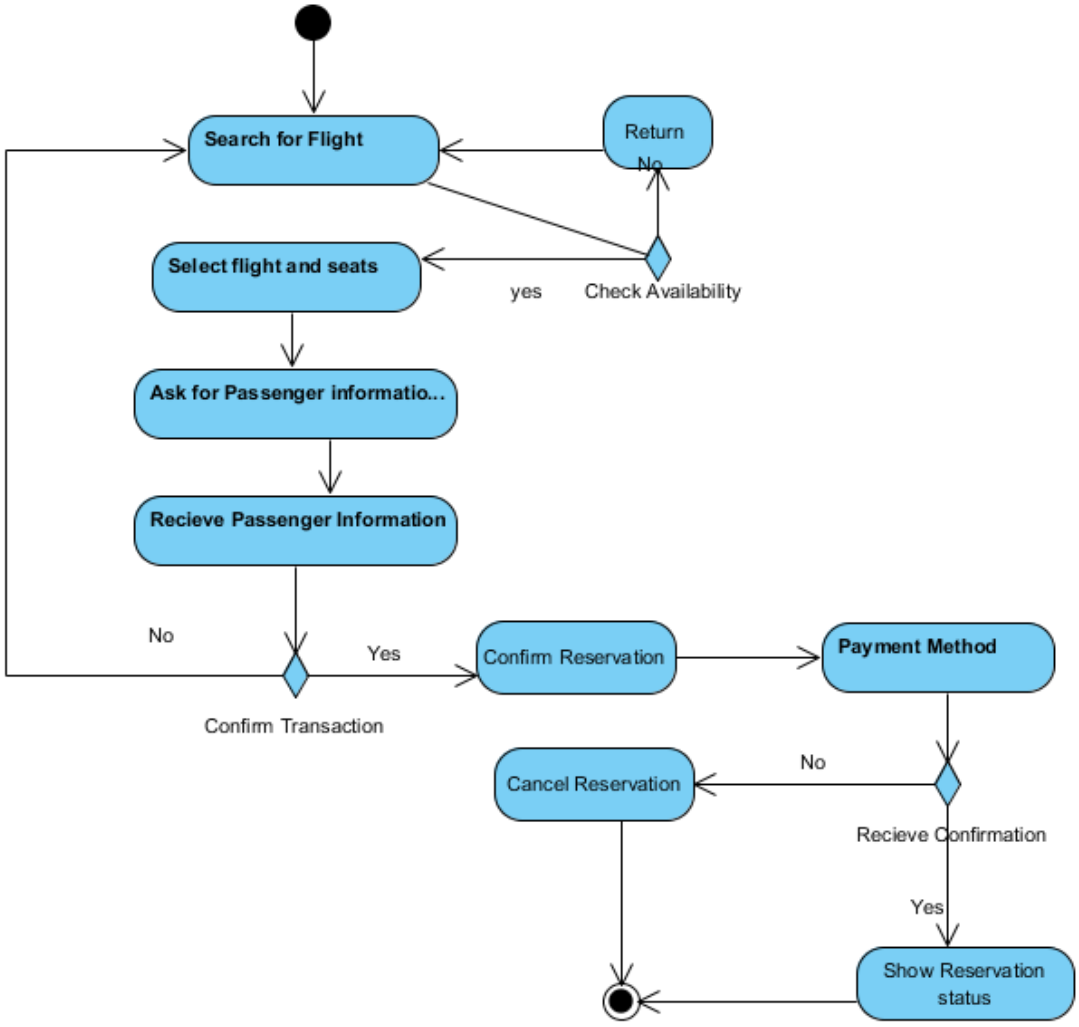


2.6 Use case

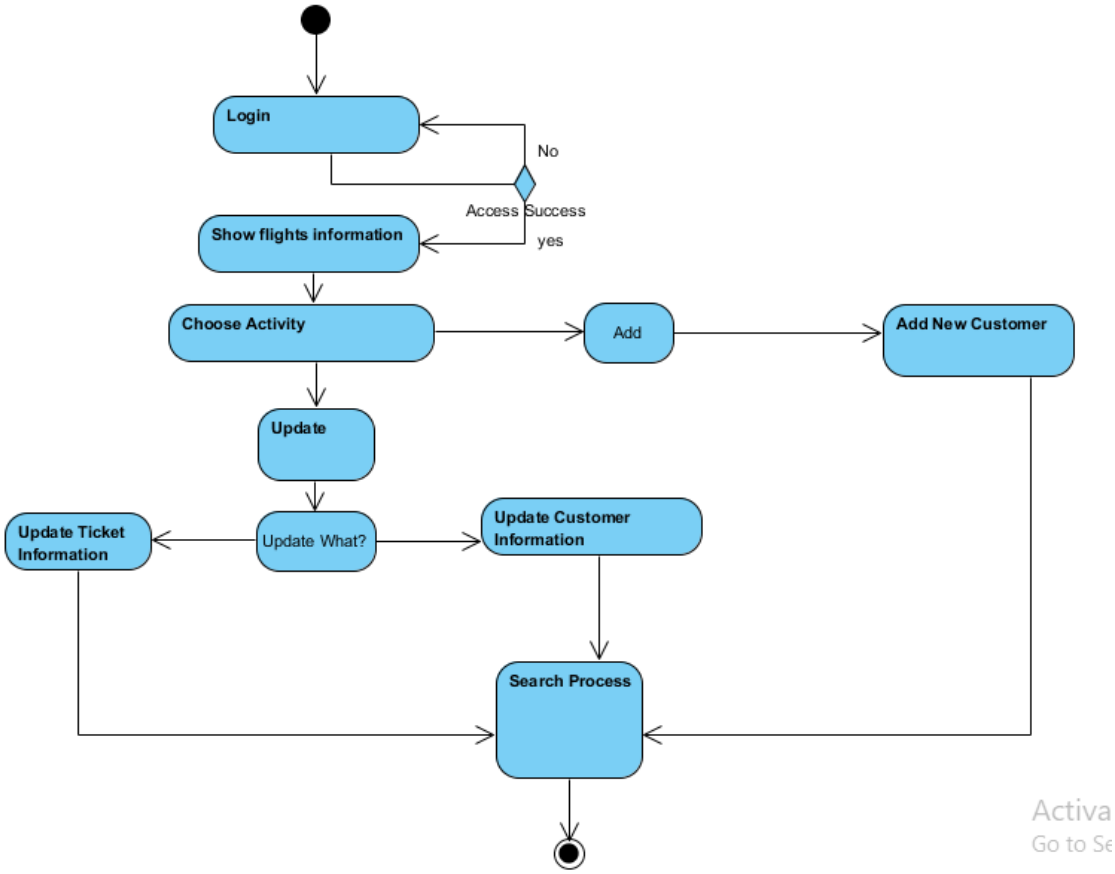

Login
update Ticket/info
Srearch Ticket
Booking Ticket
include
info account bank
Update Flight/Admins
View Information
Manager ticket Booking
Passenger
bank
Employee
Admin

2.7 Activity Diagram

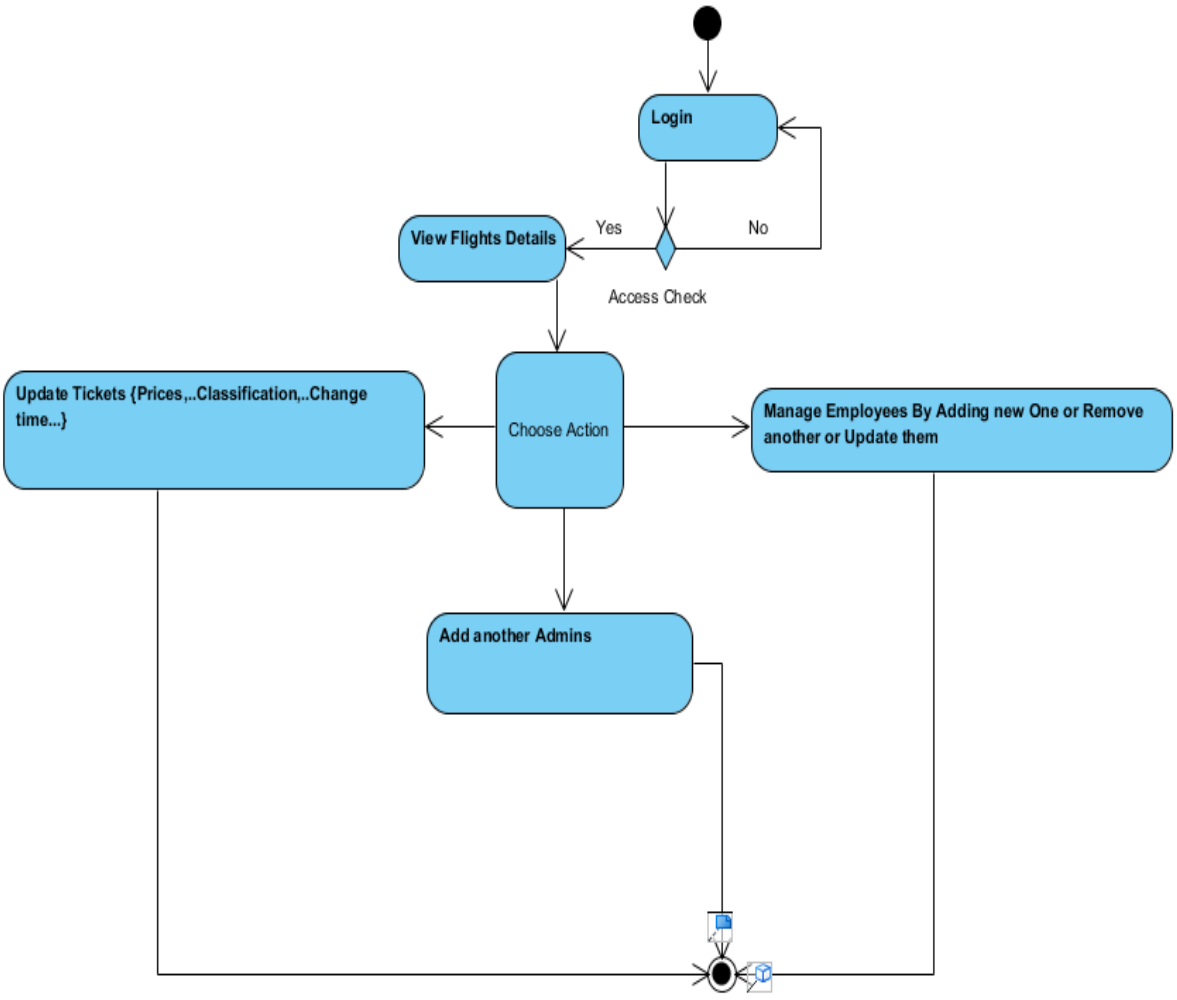
2.7.1 Booking Ticket activity (passenger)



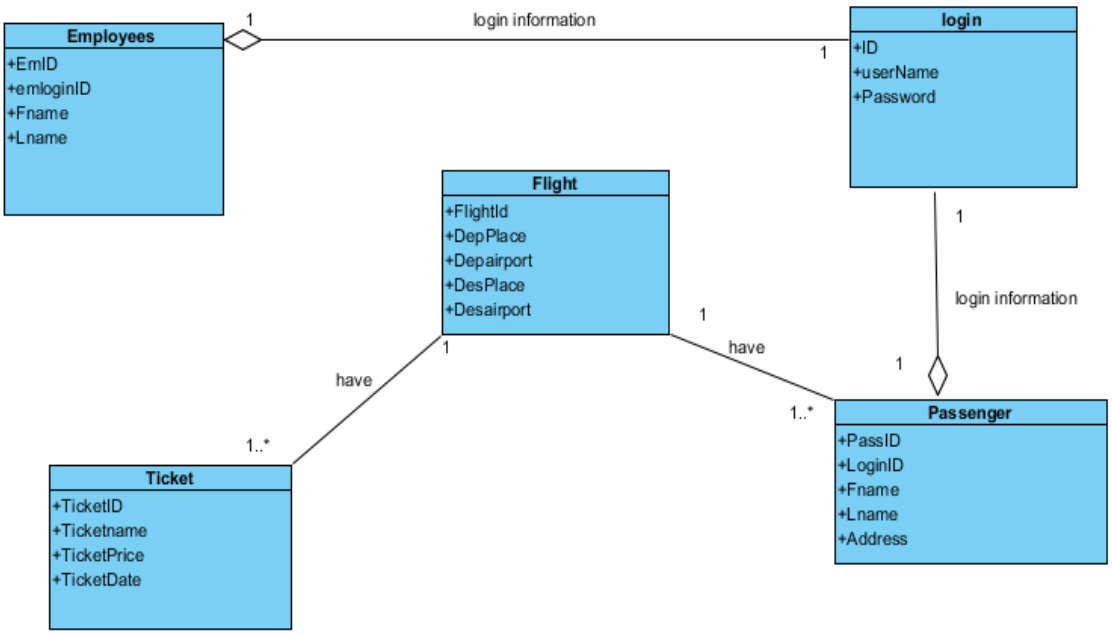
2.7.2 Employee activity diagram



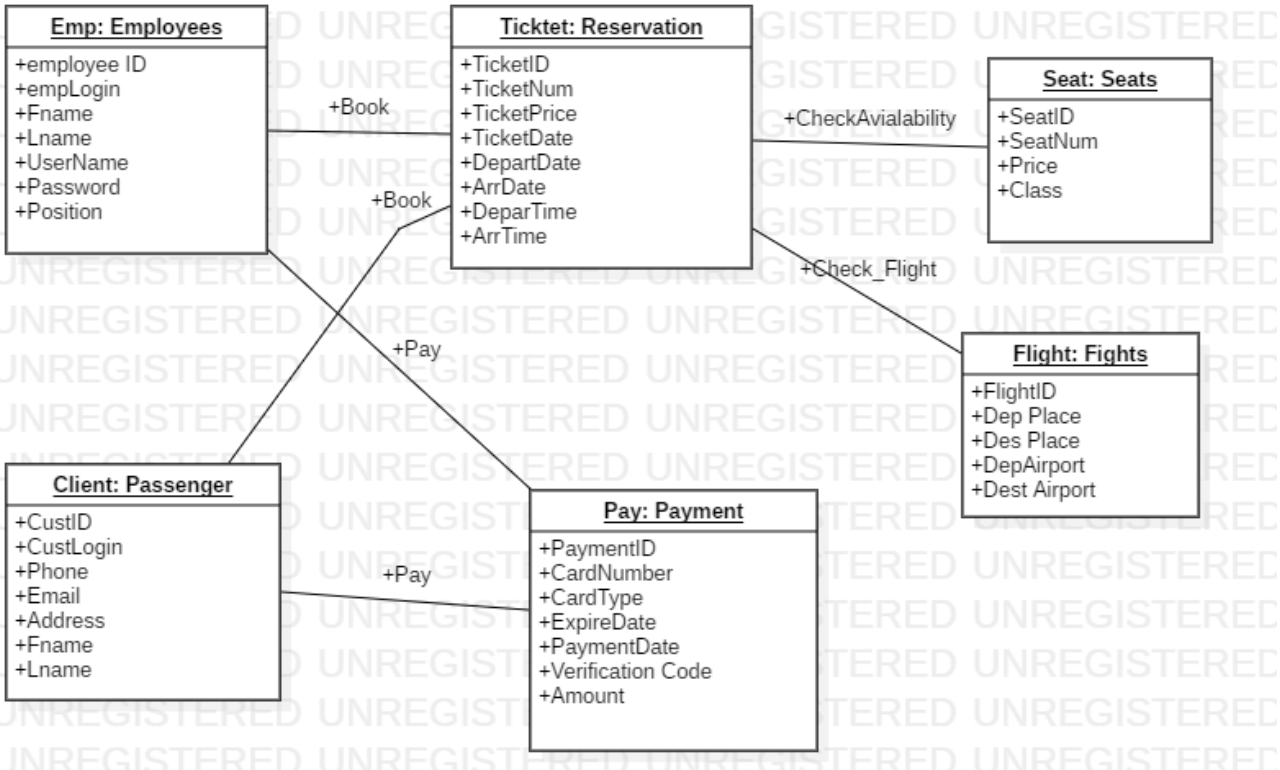
2.7.3 Admin activity diagram



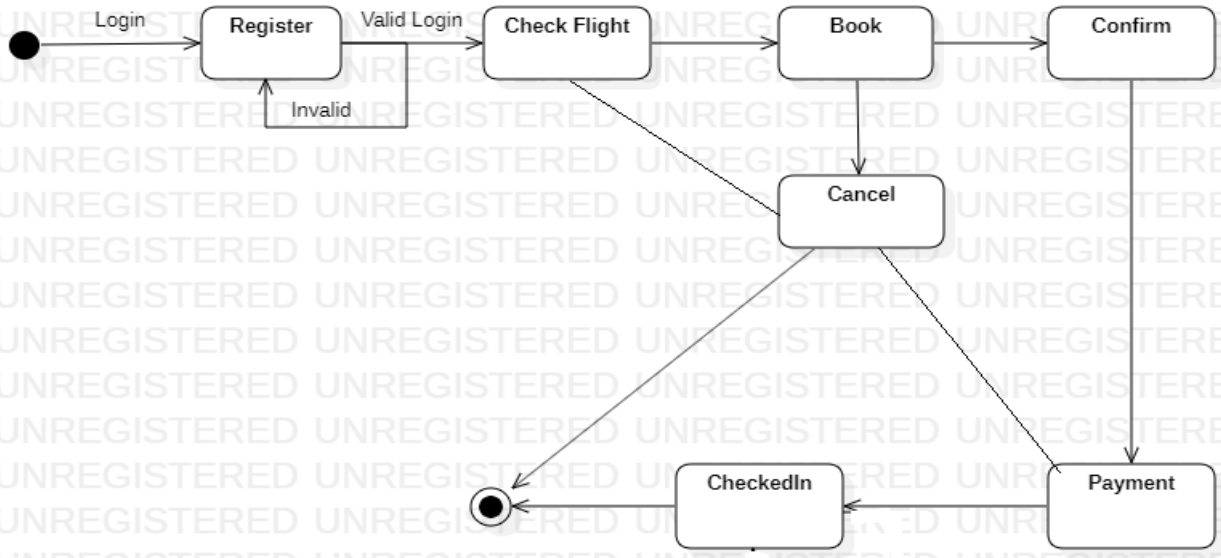
2.7.4 Domain Diagram



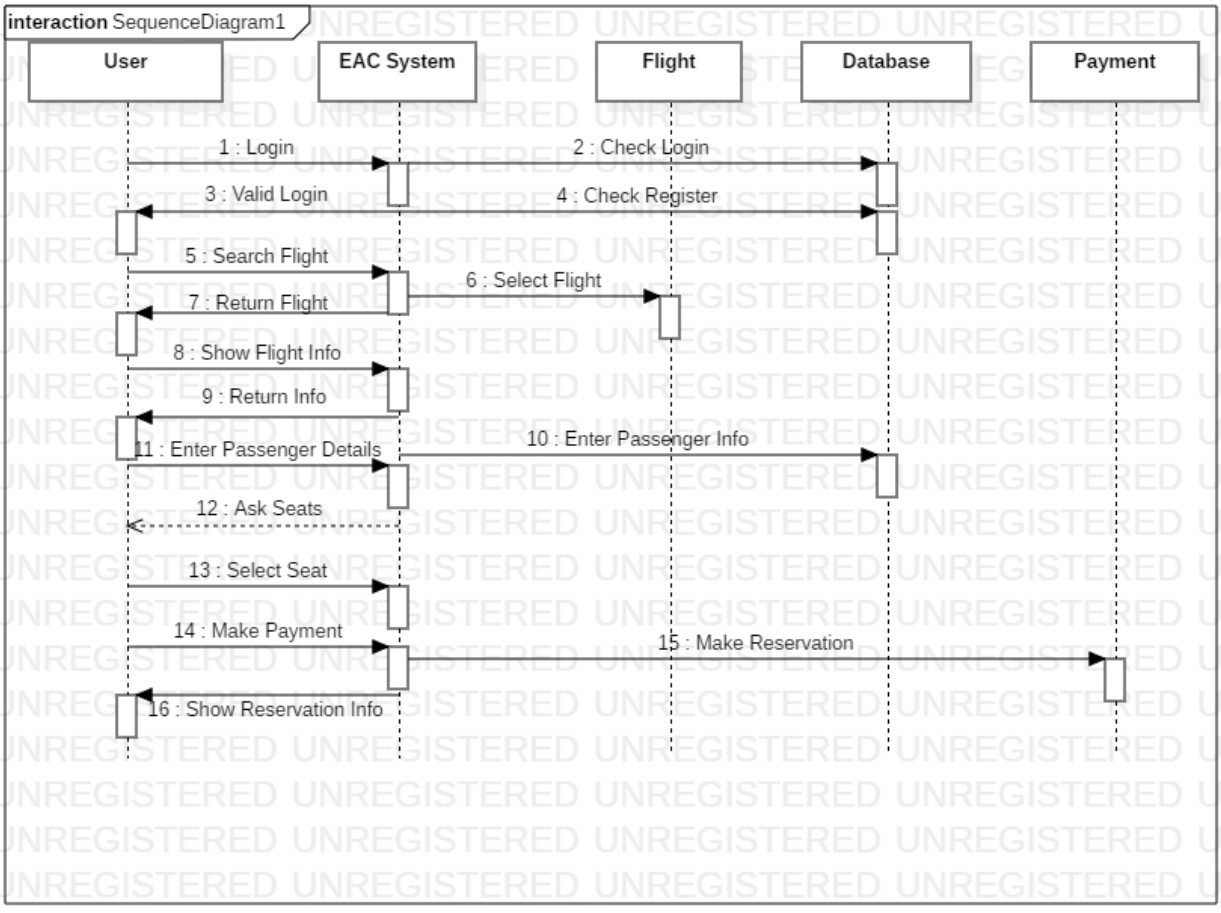
2.7.5 Object Diagram



2.7.6 State Diagram



2.7.7 Sequence Diagram



3. System Functions

Viewing Flight Details

- *Flight number*
- *Flight Name*
- *Flight route(Start and Destination stations)*
- *Flight timings*
- *Seat availability.*

Reserving Tickets

- *Flight number*
- *Flight Route*
- *Flight Time*
- *Selecting class*
- *Making payment*

Cancelling Tickets

The user must be able to cancel tickets that he has earlier reserved by quoting the ticket number, credit card number and bank name.

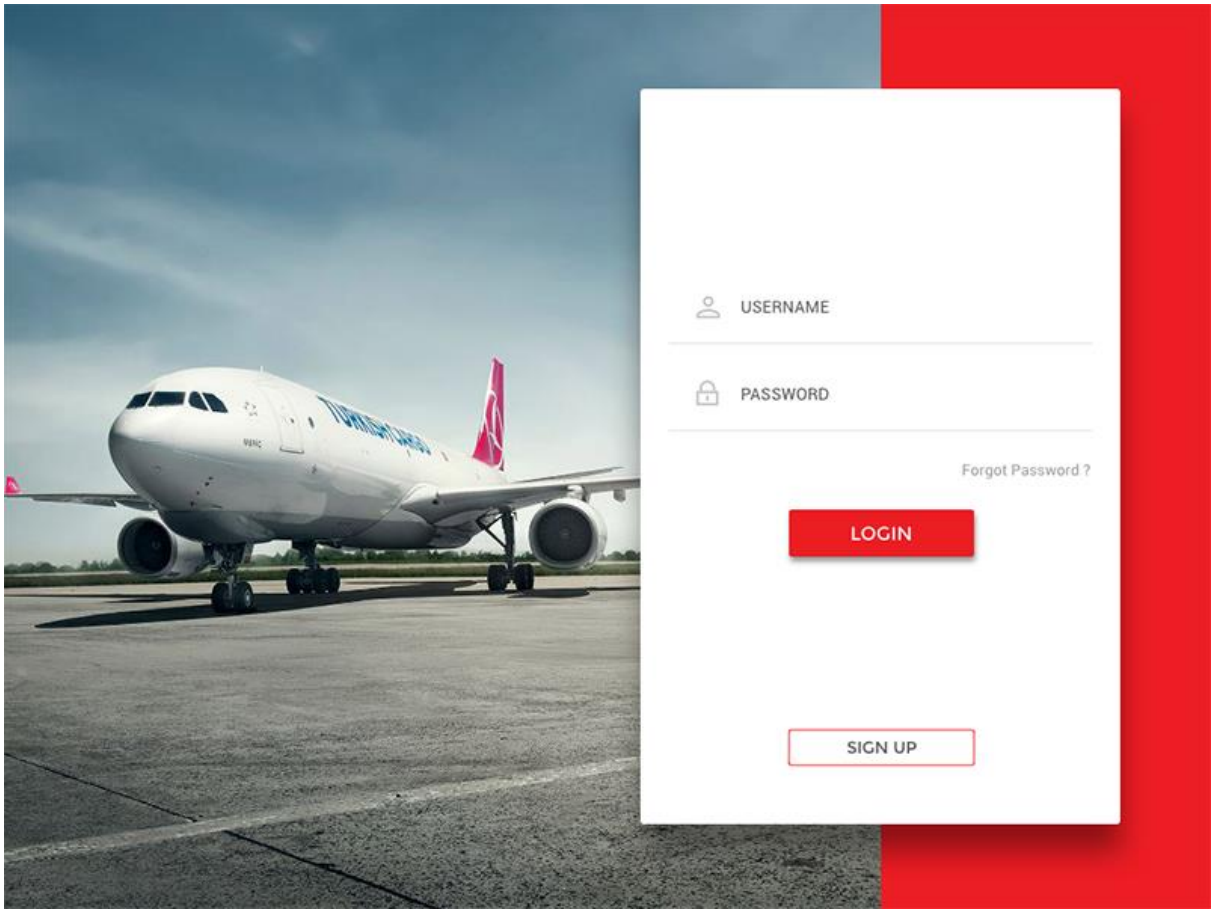
Constraint*s*

- *At the time of reservation, each user is provided a unique ticket number*
- *20% of the ticket will be deducted in case of cancellation*
- *The maximum cancellation date is 2 day*

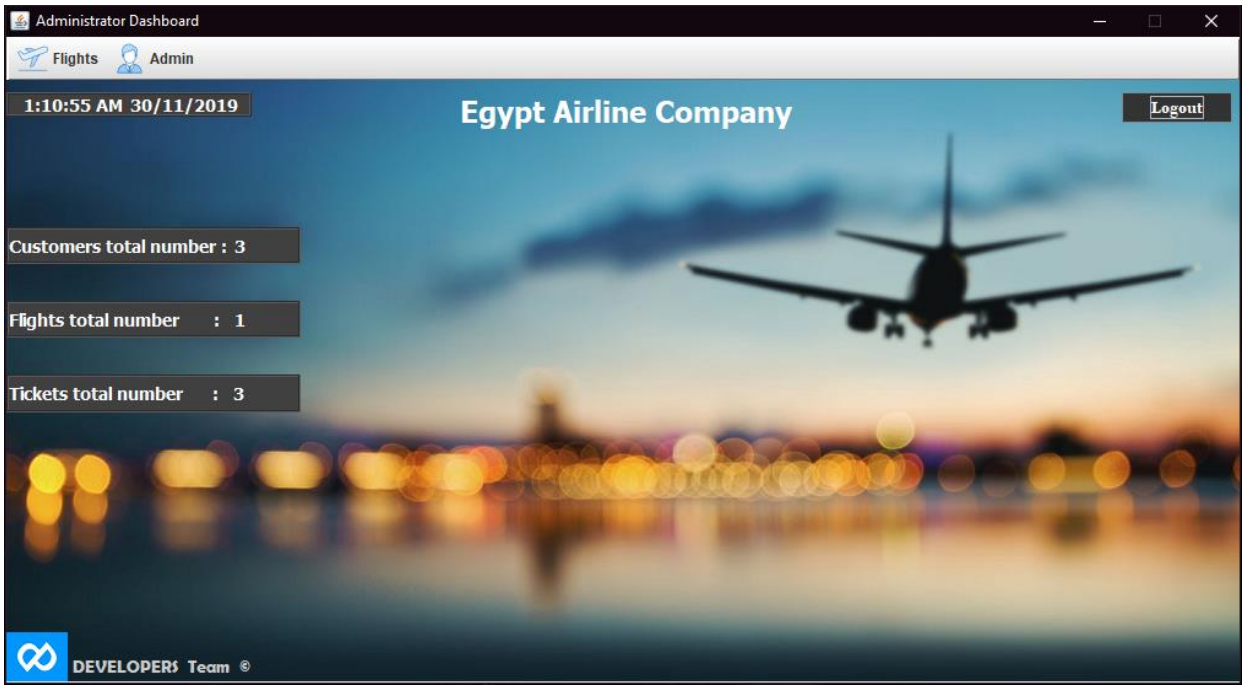
4. External Interface Requirements

4.1 User Interfaces

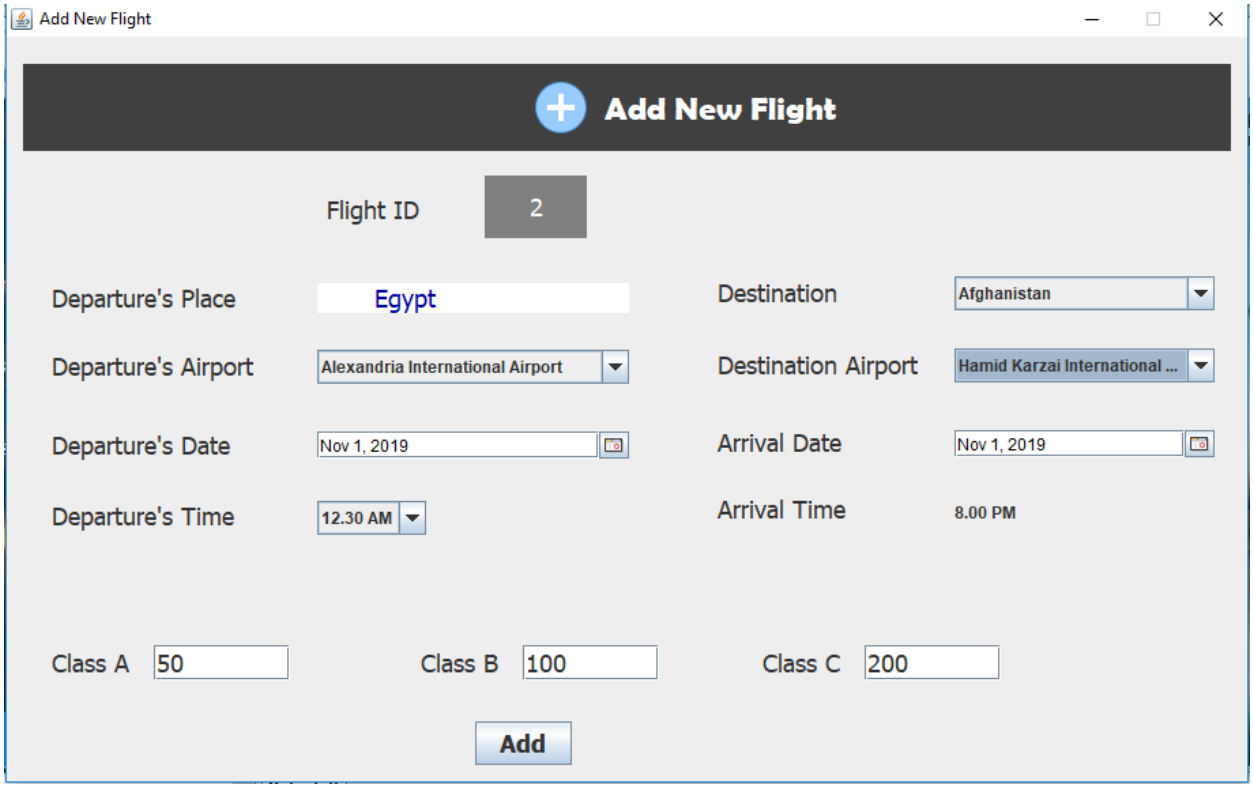
1-The login page show that the users should give the required information to access the application. Continue to the login page required information should be [Name, SSN, Mobile Phone, Email (Optional),Payment ways….].



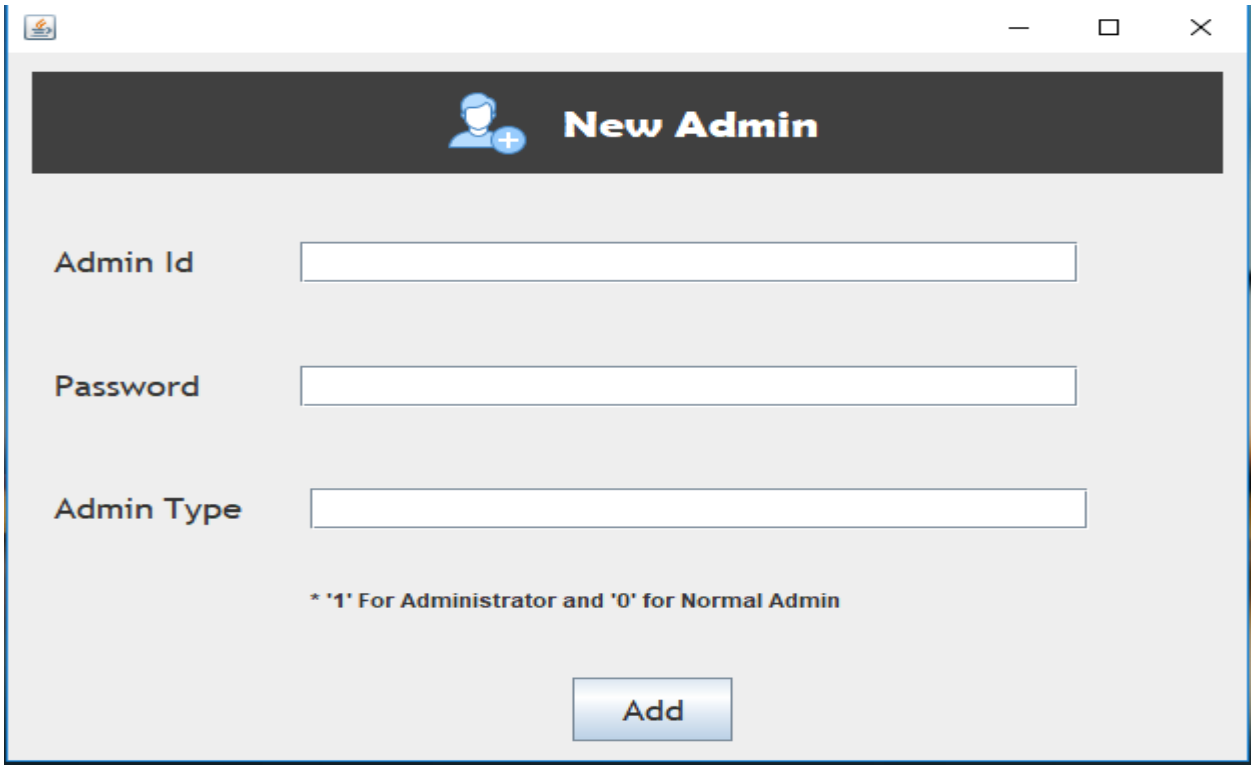
2-After the administrator login to the system this form (administrator board)will appear that shown Information about the total numbers of customers & flights and tickets , And show the functions that he can access



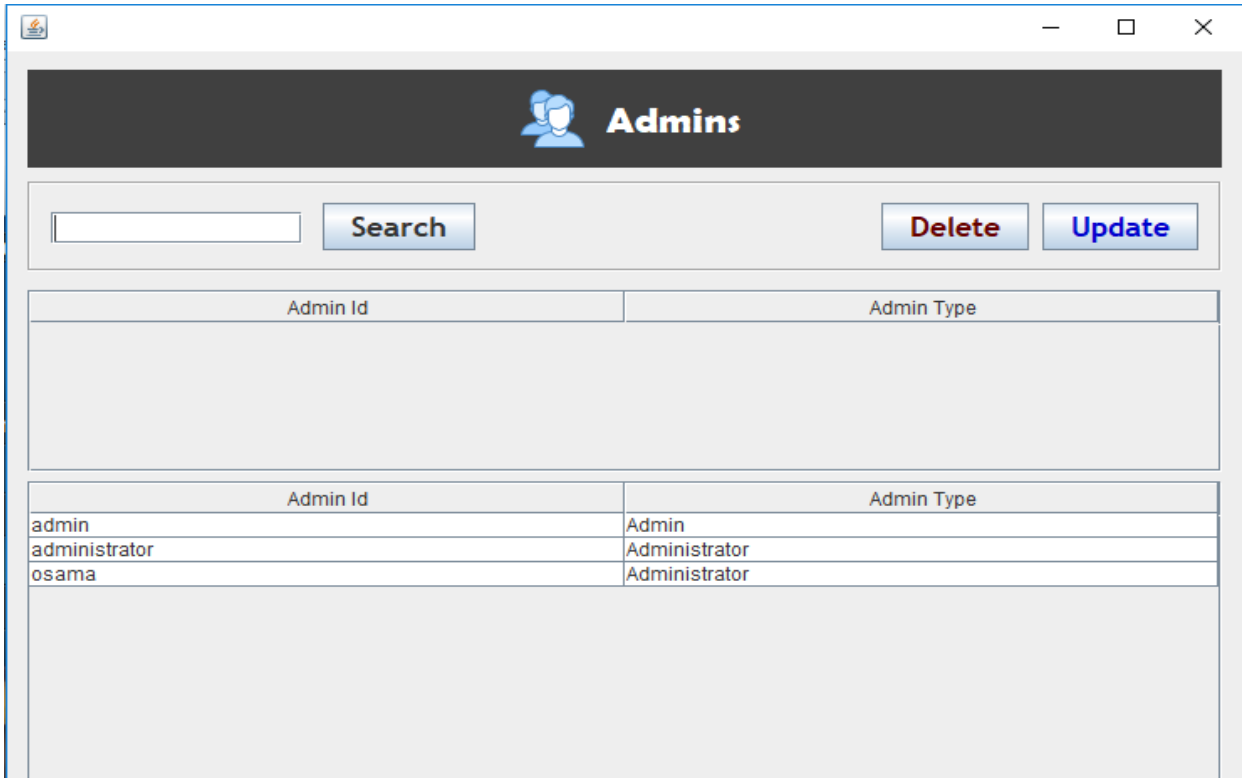
3-Only the administrator can update flights



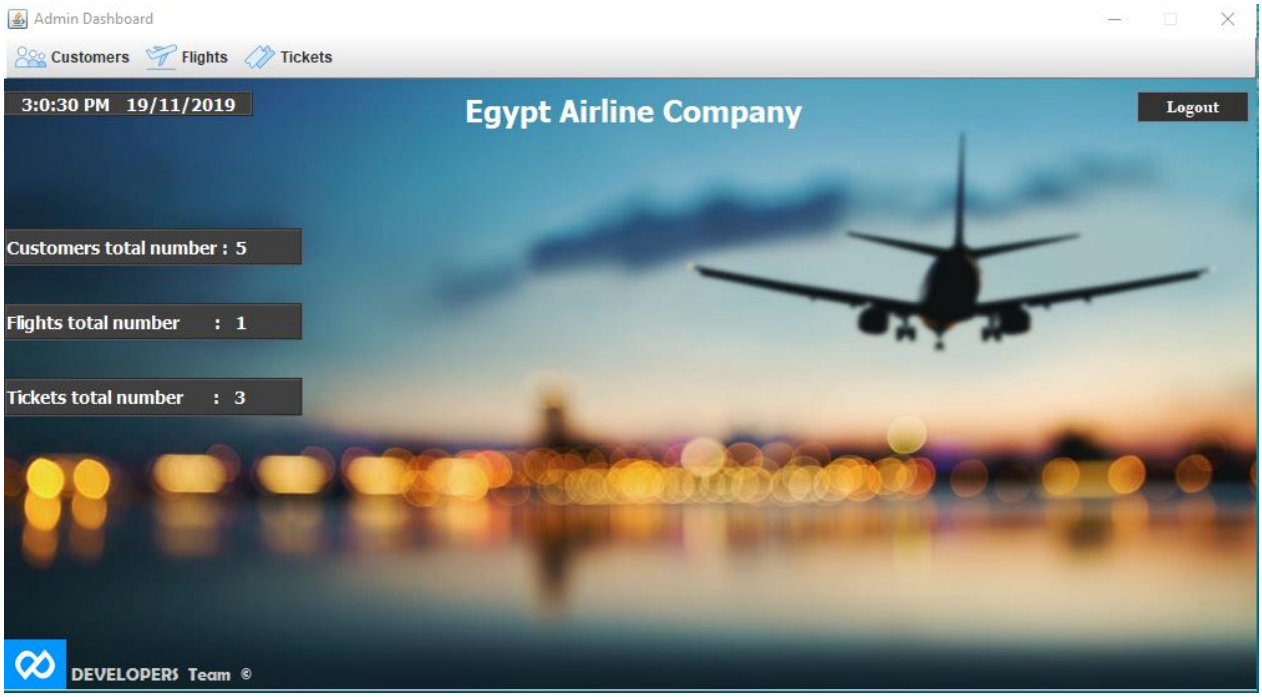
4-The Administrator can add & delete and update employees



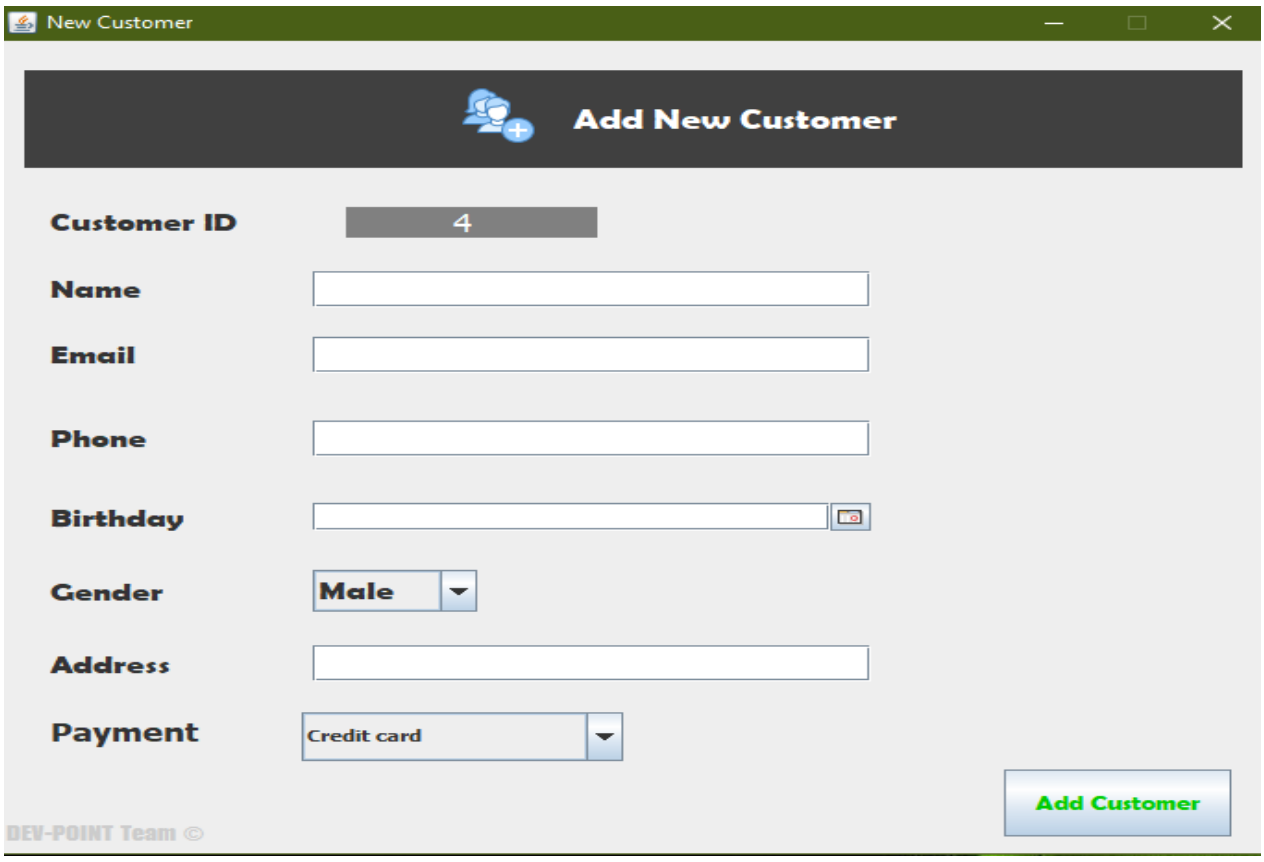
5-The administrator can view currently admins



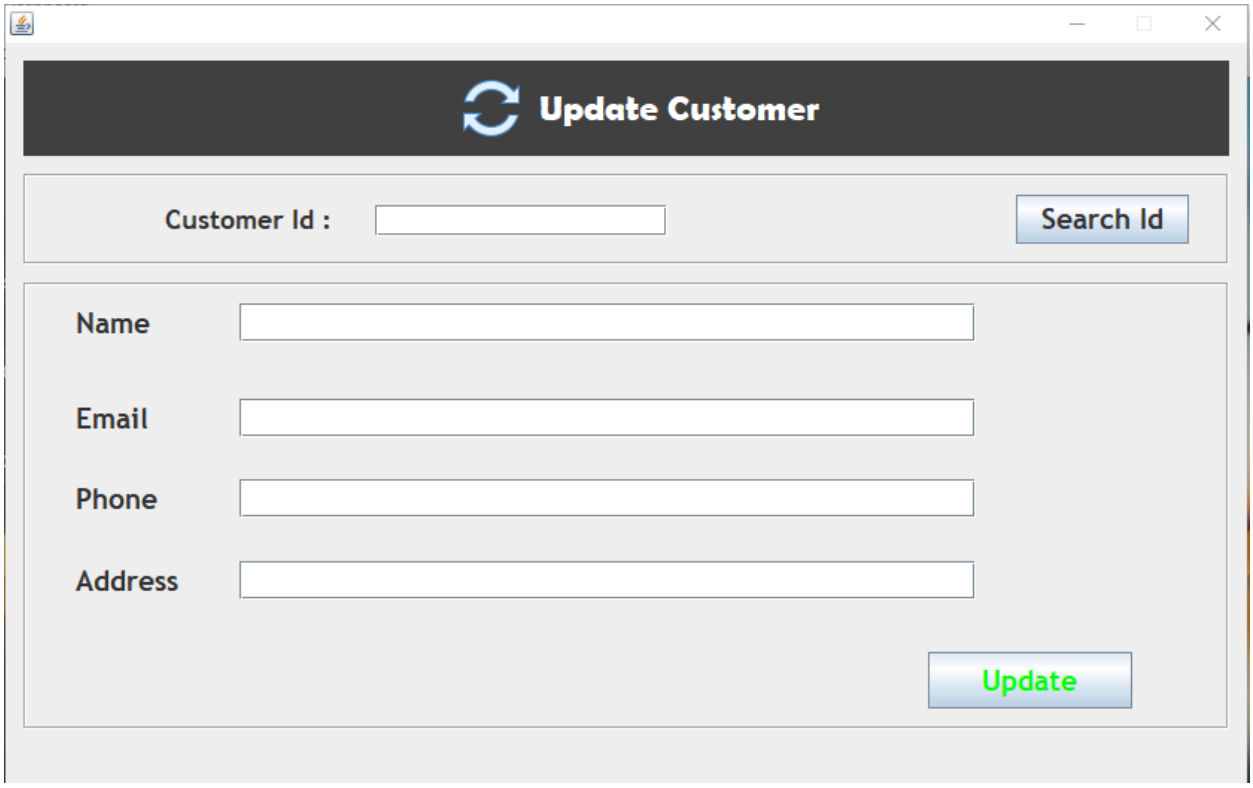
6-After the employee login to the system this form (admin board)will appear that shown Information about the total numbers of customers & flights and tickets , And show the functions that he can access



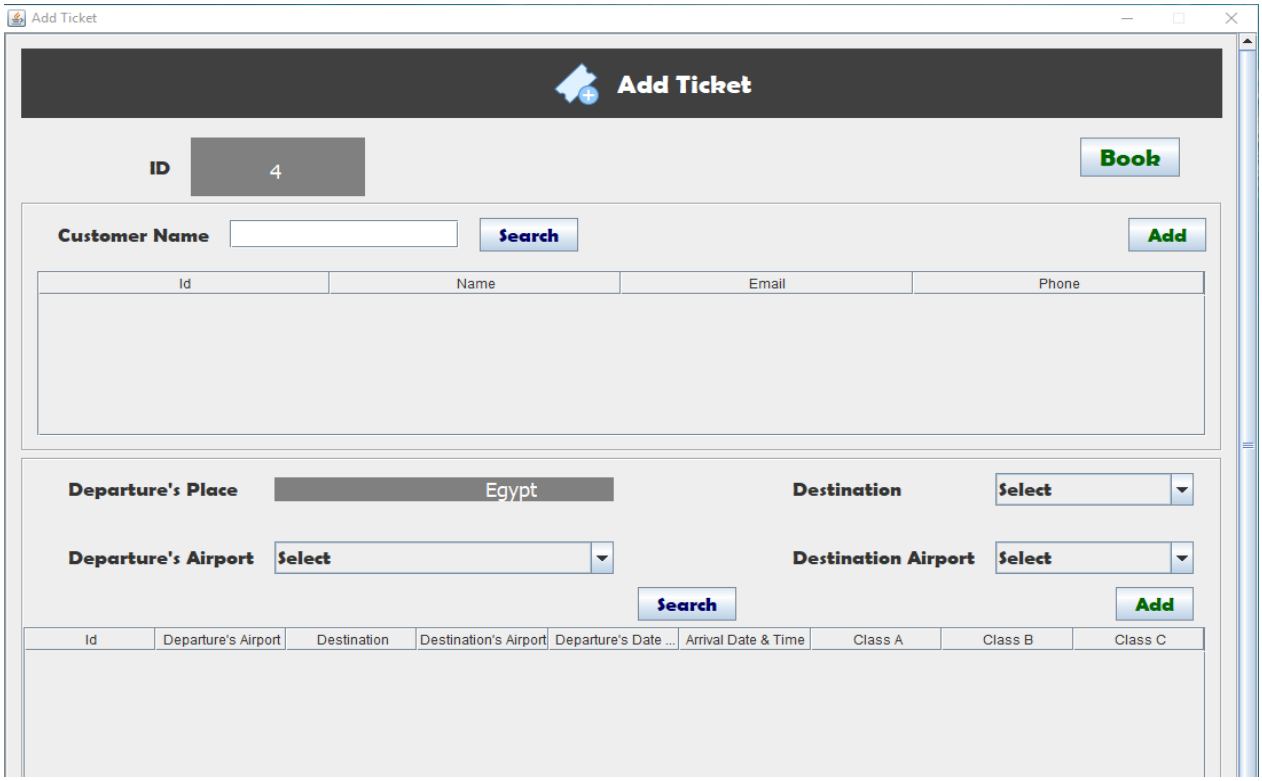
7-The employees only can add new customers from this form



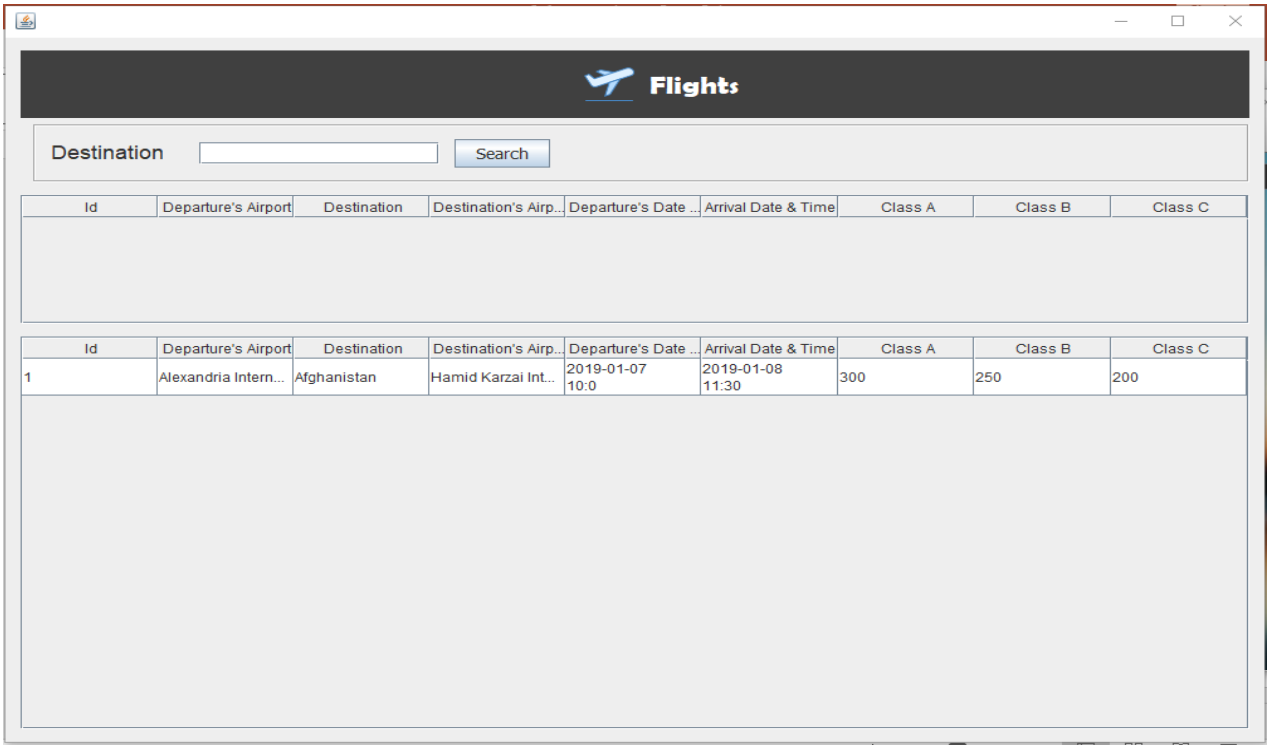
8-The employees can update customers information here



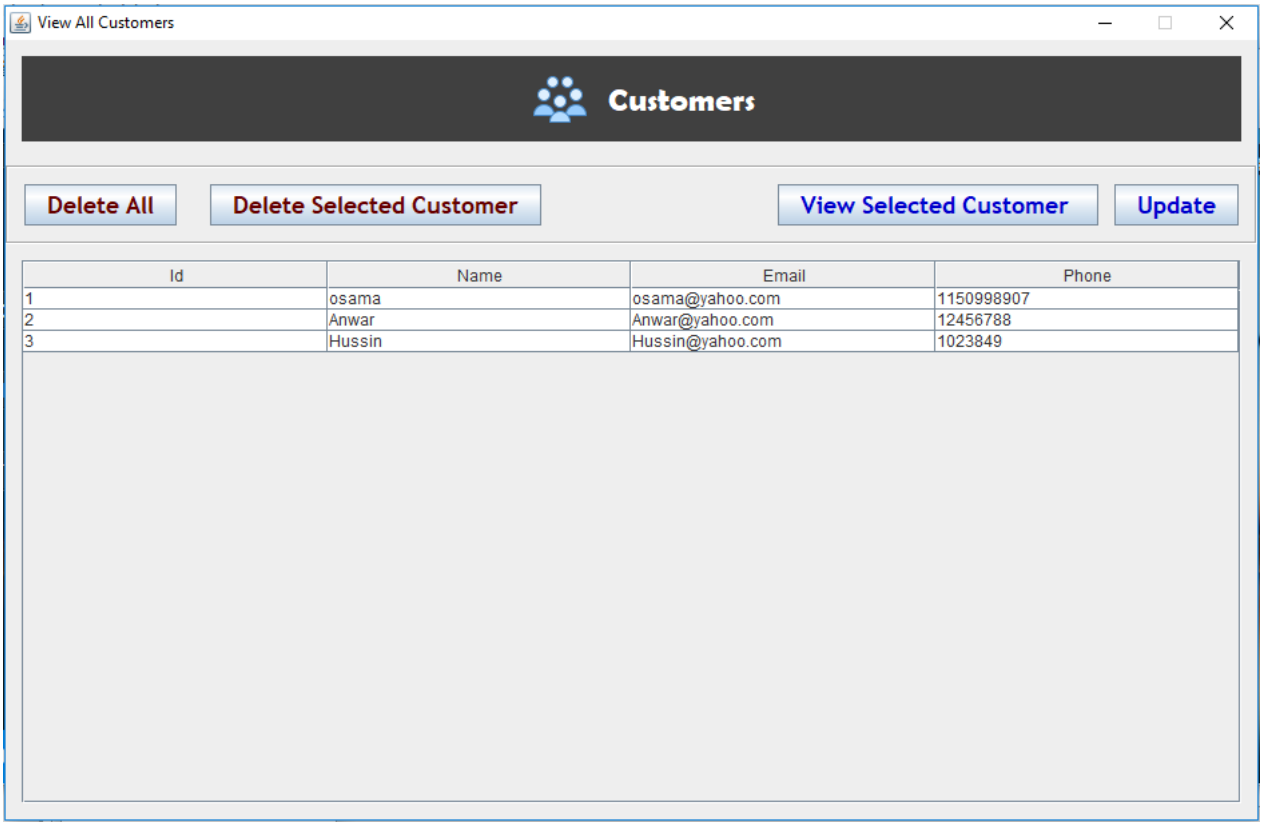
9- Employees can add flights from this form



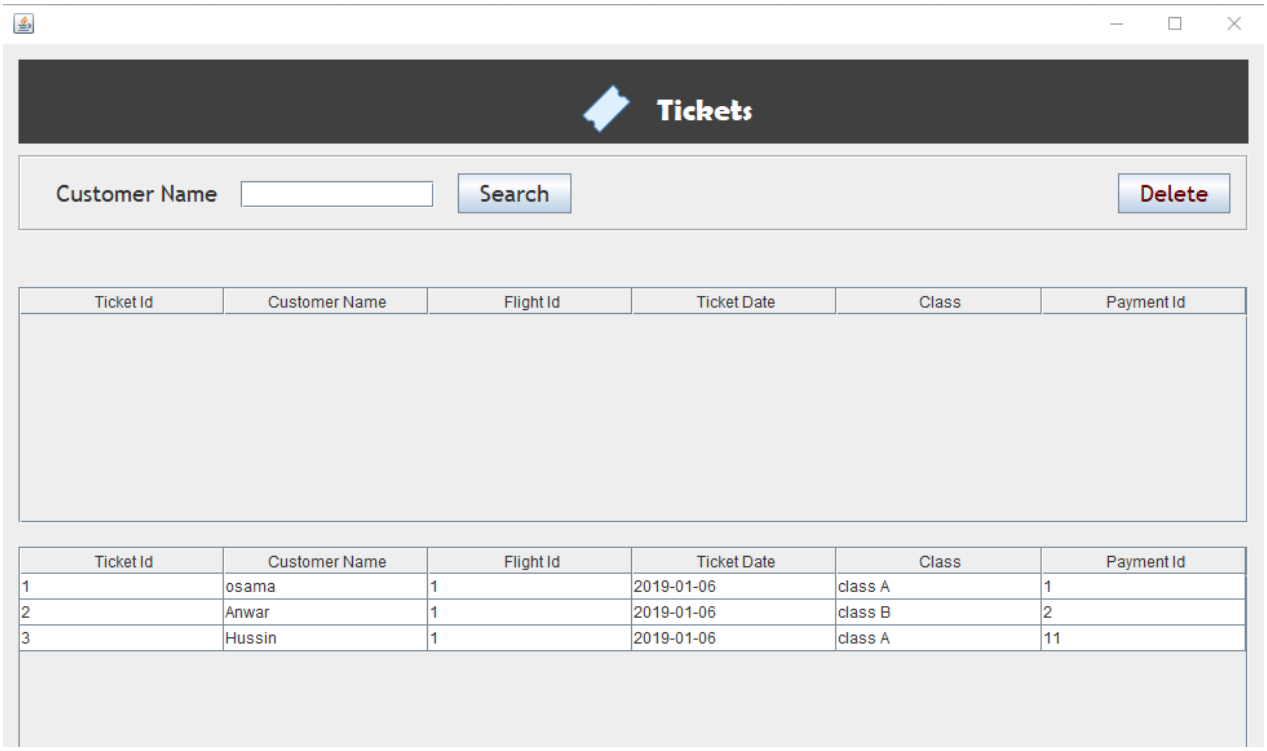
10-Employees can view available flights that can be booked



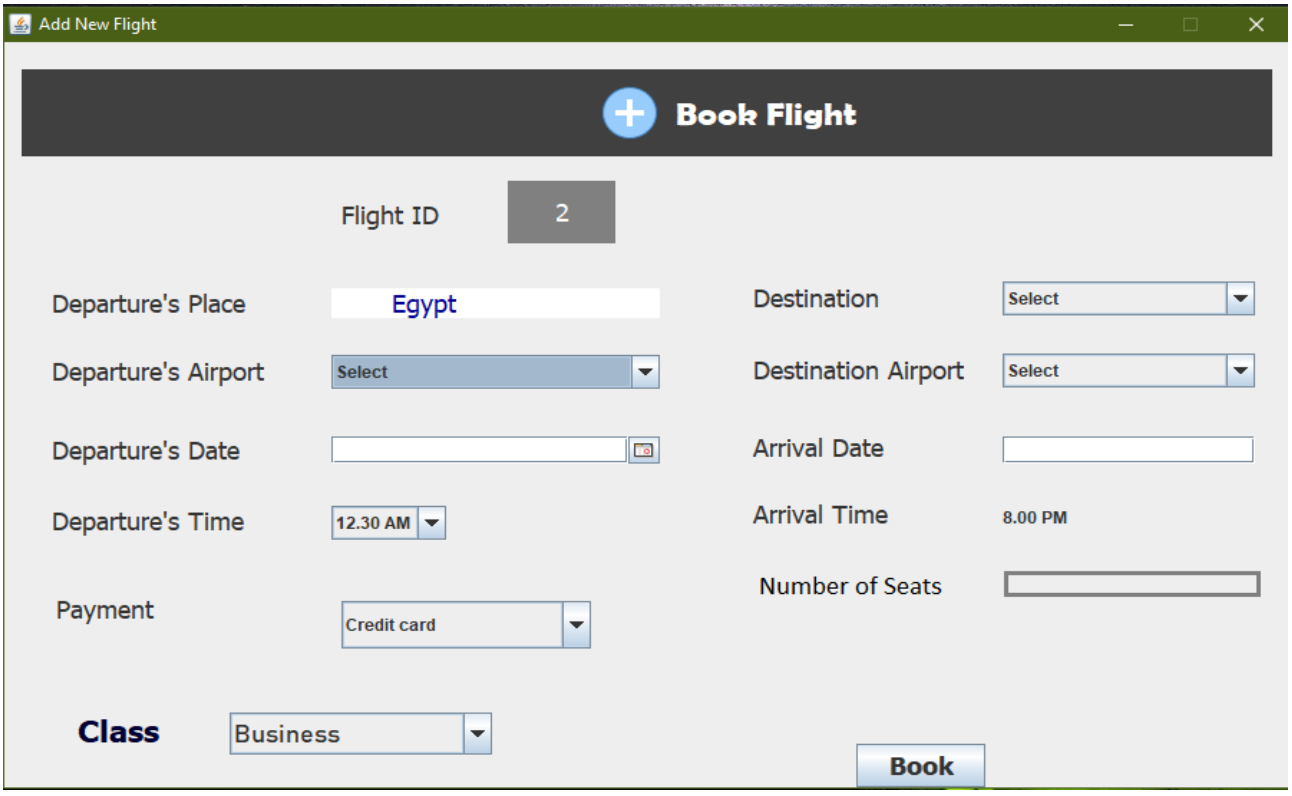
11- On the Customers page Employees can view customers here



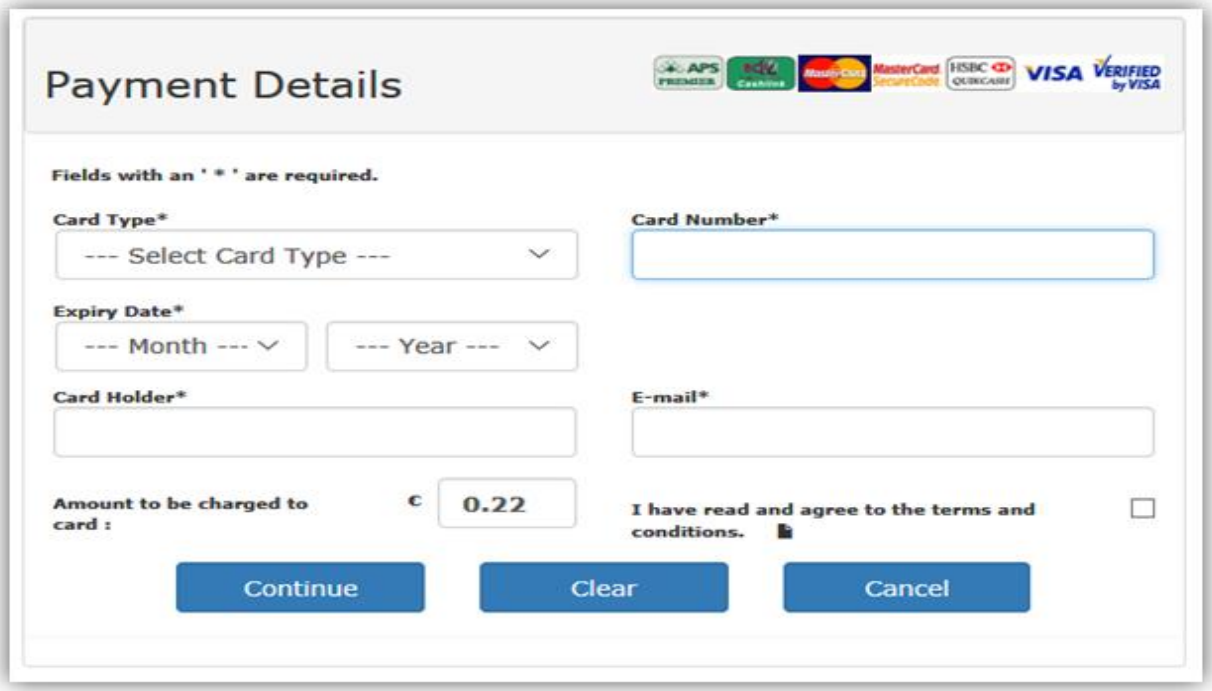
12- - On the Tickets page Employees can view tickets here



13- On the booking page, the client can choose the Flight Destination & Arrival Date and Time & Date of Trarvel Class of Flight and so on..



14-On the payment page client can select the payment method



4.1 Hardware Interfaces

Airline Ticket System is a web-based project. So any smart phone or computer, which has an internet browser, is enough to use this system.
And Desktop application may be on any PC has the required propreties.

4.2 Software Interfaces

Users will use application program via the user interface program. The System must has connection to the database management system.

4.3 Communications Interfaces

Hypertext Transfer Protocol (HTTP) shall be used to provide a communication between system and users. Because, Airline Ticket System is a web-based system which should be reached on World Wide Web by user..It used to transfer information on intranets and the World Wide Web.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The EAC system can capable to accept 500 connections.
This design is to satisfy each user's usability and connection quality.
The system shall update all flight status information every 5 minutes

5.2 Security Requirements

- Passwords must be a minimum of eight characters and must contain one to seven digits.
- Email addresses should be verified before the system grants user access. This verification shall be exercised by sending the prospective user a confirmation email after enrollment, this email must contain information specific to completing the enrollment process.
- All data from client to system involving private data must be high secured

5.3 Software Quality Attributes

Usability

The EAC system design allow deployment on Windows. The design should support Windows Server 2010 or later.

Robustness

The system design shall include recovery scenarios allowing the ability to restore a state no older than one business day old.