Software Engineering Mini Project Airline Reservation System (ARS)

Team Members:

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1: Problem Definition & Scope of the system:

1.1) Problem Definition:

The current reservation system is manual which is very slow time consuming and very difficult each person to book tickets through office agents. Users enquire about the flight schedules through phones or in person depending upon the user and it is very difficult to follow through and remember all those things. Moreover passengers are not having much options to pay for the reservation Either it can be done by cash or by card transactions which are not flexible because they cant be done remotely at users convenience.

So we tried to find an efficient method to overcome some of the above mentioned problems and tried to convert the existing manual airline reservation system into an automated one which is very efficient easier to use than the previous one and convenient for both the users and workers

1.2) Scope of the proposed system :

The purpose of the airline reservation system is to ease the flight management and to create a convenient and easy-to-use application for passengers trying to buy airline tickets.

This project will provide a lot of to the client as almost all the processes are automated which results in less consumption of resources and manpower. The number of functionalities it will provide are many and if the client wants to add more of functions they will be added in least amount of time and more importantly the cost in developing the software will be as least as possible.

2: Requirements Specifications:

Purpose of the system:

The main purpose is to develop a software which will reduce the tedious task of booking airline tickets by providing it online in a user-friendly environment. It also aims at increasing the efficiency and reducing the drawbacks of manual airline reservation system giving the user the freedom of booking flights whenever required.

Users:

ARS(Airline Reservation System) will be most helpful for the people who travel a lot on daily basis.

Functional Requirements:

- Mostly two types of actors that will be interacting with the system are A User/Passenger and second will An Admin/Employee.
- Users should be able to view scheduled-flights at any time.
- The users should be able to make reservation and pay for it in convenient and secure way.
- Users can search flight's view vacancies and create their own itinerary.
- All the employees/admins will be able to add/modify flights easily and change their status accordingly.
- They can maintain passenger records and get different insights.
- Even Employees can create itineraries and most important instances of flights.

Assumptions:

The main actors of the system i.e. Passengers & Admins/Employees are assumed to be familiar with computers and how to use it. They should also be familiar with the windows operating system and Internet.

Hardware Requirements:

Operating System: Microsoft Windows 7 Or above.

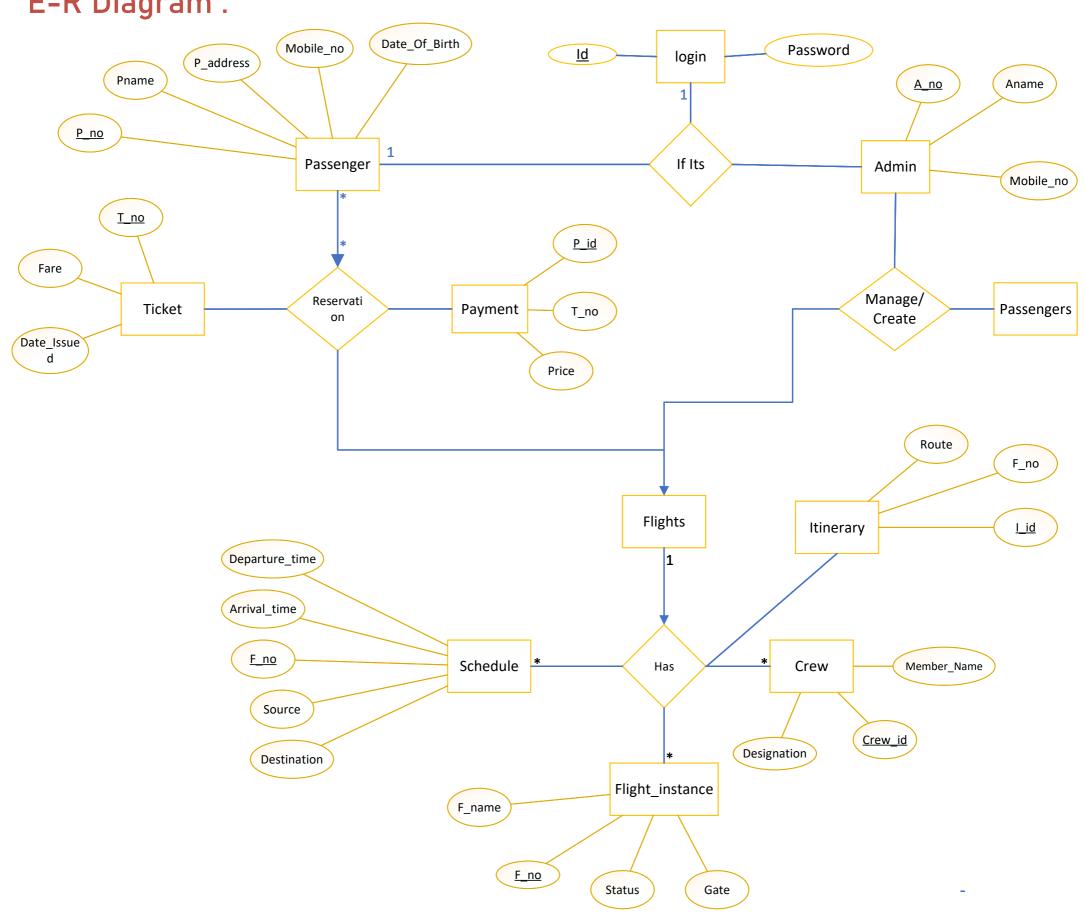
RAM: 2GB memory

Processor: Intel Core 2 or AMD Athlon X2 (Both at 2.5 GHz)

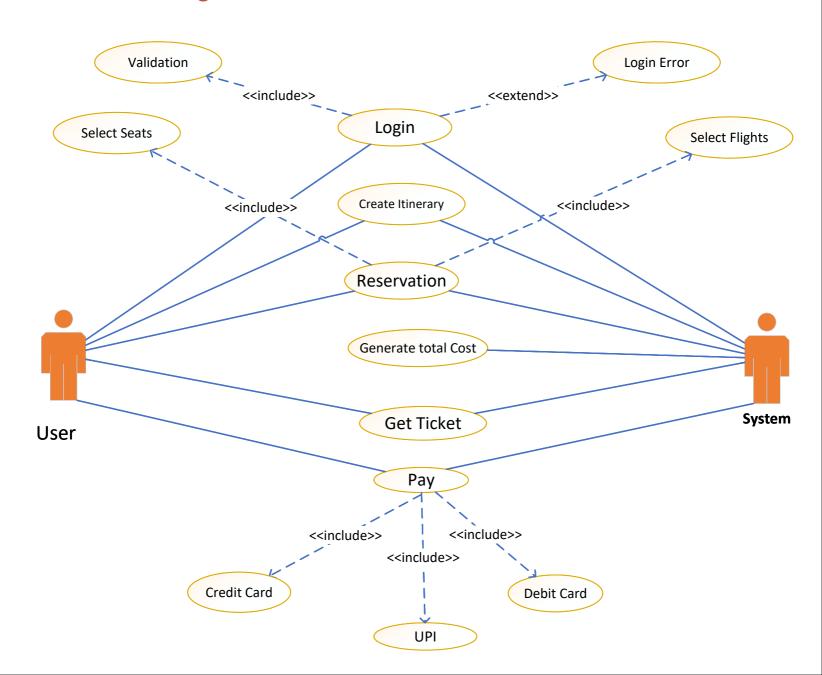
Coding Language: Java/Python

Internet: Compulsory.

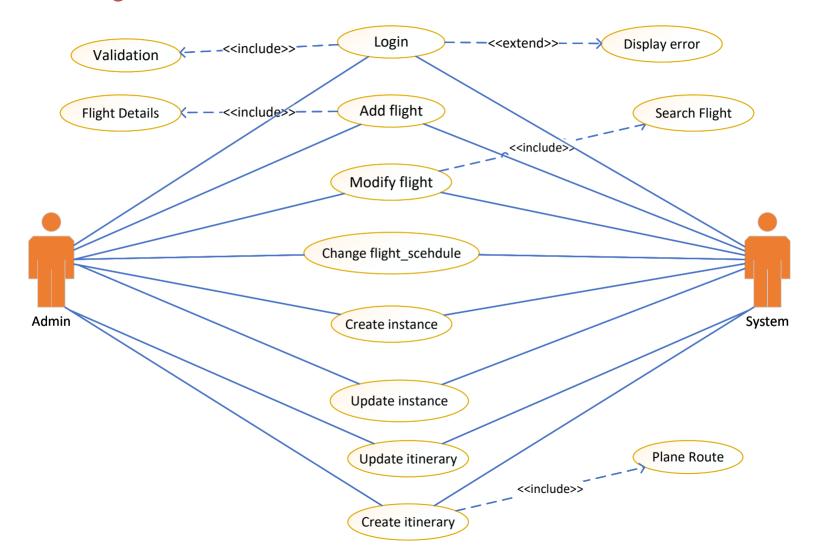
E-R Diagram:



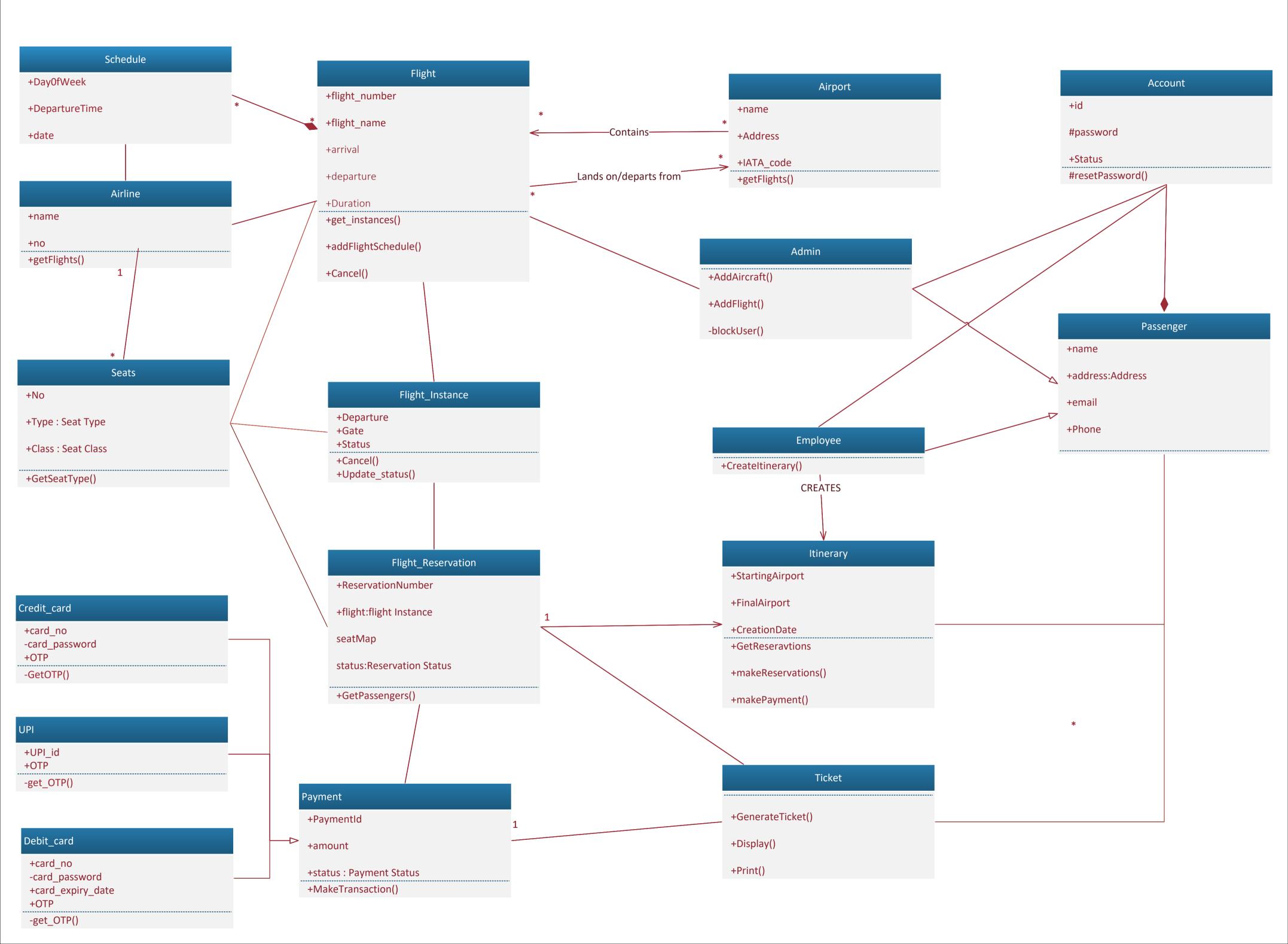
Use Case diagram - User:



E-R Diagram - Admin:



Class Diagram:



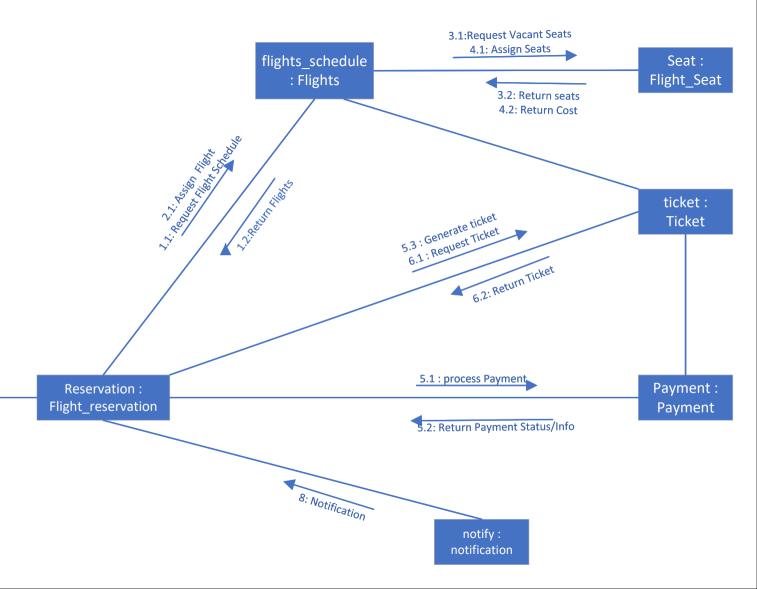
Sequence Diagram: System **ARS** -Verify -Loginalt Verify [Valid] Give Access--Give Access [Else] -Display Error – – -Display Error--Make reservation--Get FLight Schedule-Return Schedule Display Schedule Select Flight Request seats_ If Exists 'Return Seats' Displlay Seats Select Seats alt -Generate Cost-[User Selects seats] -Generate Cost--Display Cost-[Else] Return Schedule--Display Schedule--Pay -Process Payment-<----Return Payment Status--Display Payment Statusalt Generate Ticket [Paid] -Return Ticket— -Display Ticket-[Else] -Return Error-----Display Error – – Download Ticket--Logout--Logout--Block Access- - -- - - Block Access -

Collaboration Diagram:

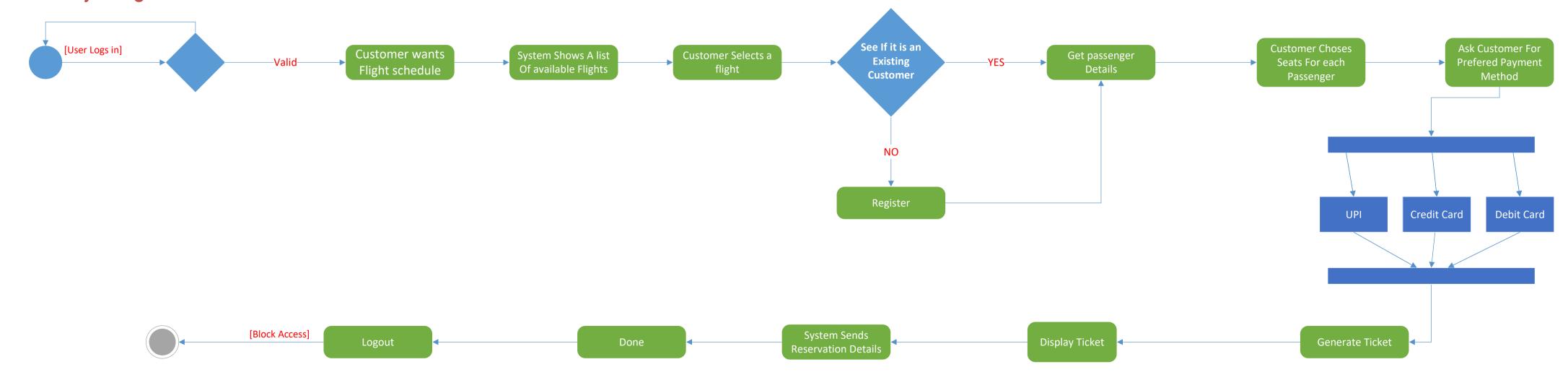
USER

1: Make Reservation
2:Select Flight
3:Get Seats
4:select Seats
5:Pay
6:Get Ticket
7:Download/Email/Print

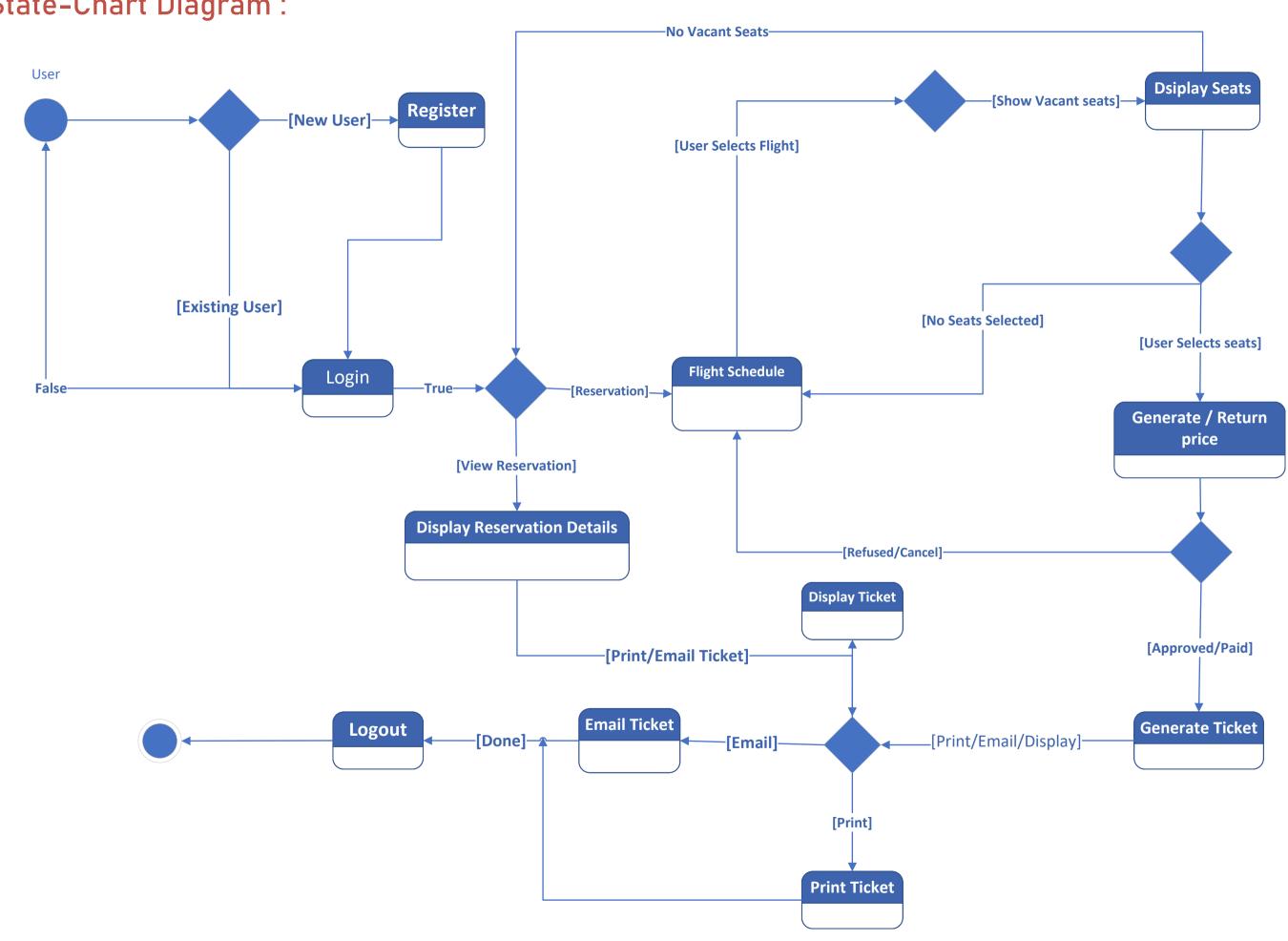
1.2: Display Flights_schedule
3.2:Display Seats
6.2:Display Ticket
5.2:Display Payment Status/Info
8.1: Notification



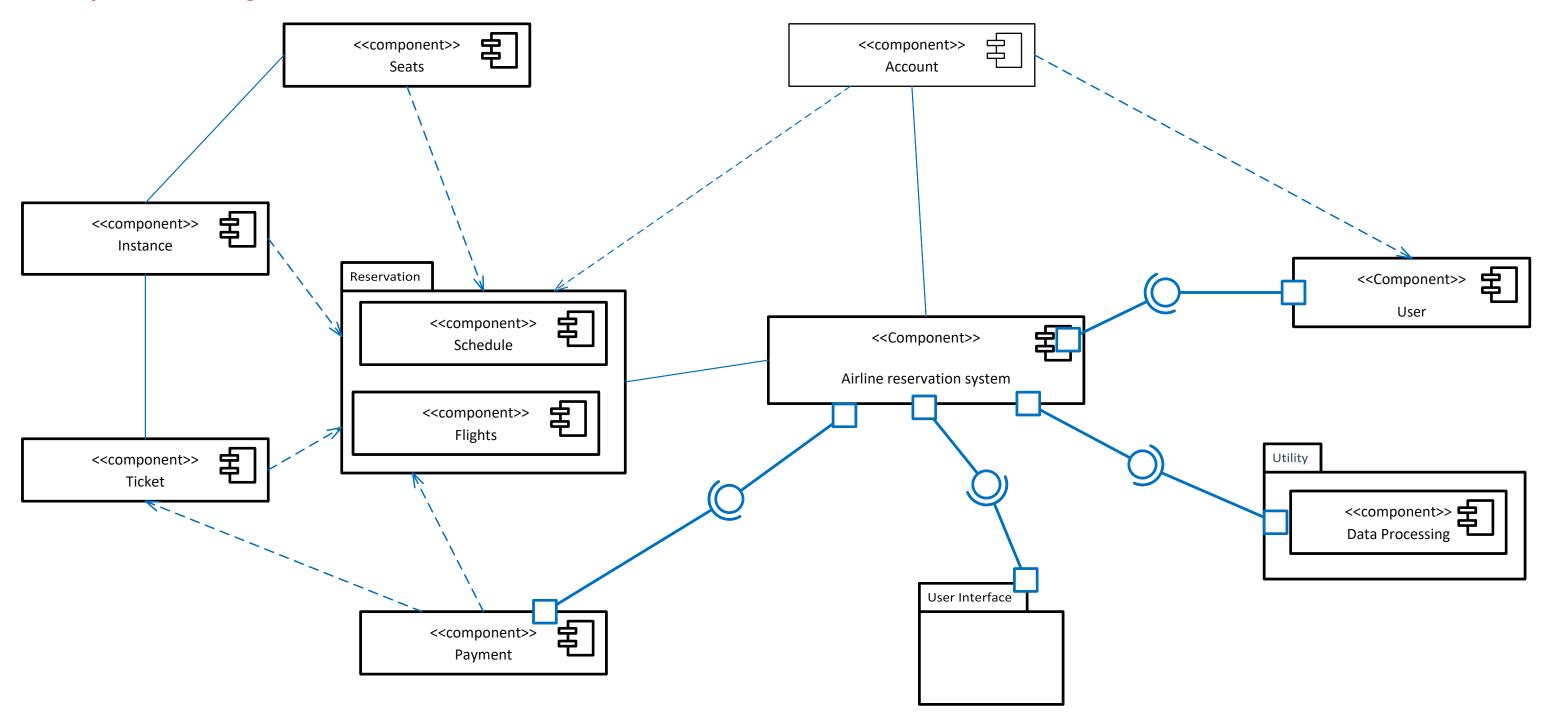
Activity Diagram:

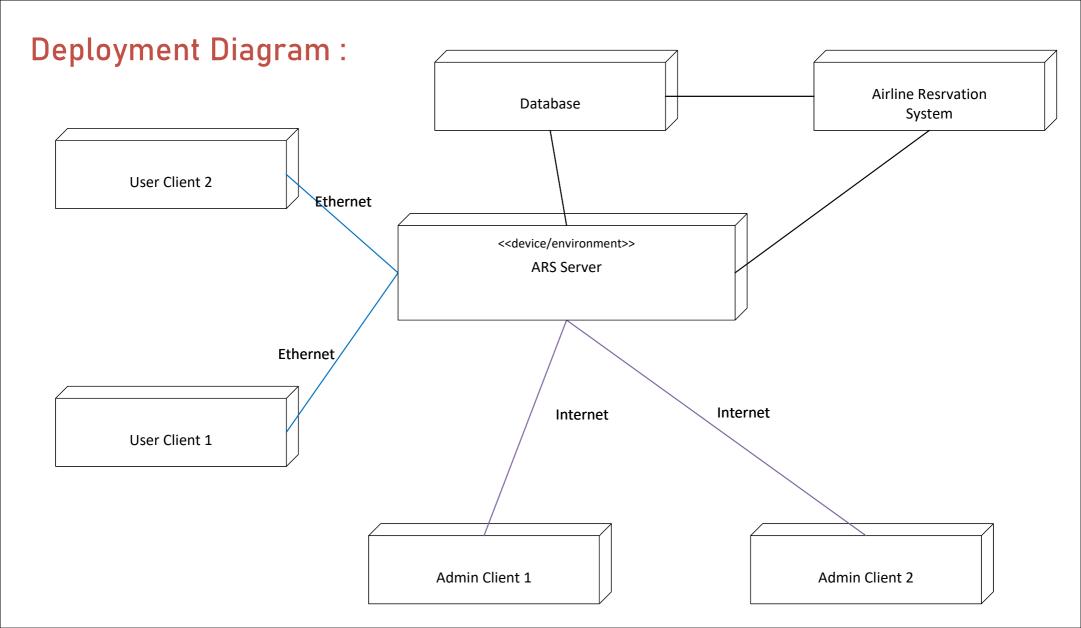


State-Chart Diagram:



Component Diagram:





Package Diagram:

