

**GROUP 10**

**PROJECT PROPOSAL**

- **Group Members**

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## • Problem Definition

As days go by, more and more people are using airplanes for transportation. This increase demands for more planes, airports and employees, as the capacity of the current resources start to not suffice the needs. All this growth and increased complexity becomes a huge problem for the passengers, employees, managers and companies.

For the airline companies and airports to be able to keep up with the increase of demand, they need to boost the productivity of their personnel and managers. High productivity can be achieved by making every available operation easy to access. Some of the operations that airports have to offer include:

- Coordinating the airplanes to help them take off and land safely.
- Providing resources for airline companies to manage flight related operations such as ticket sales and check-ins.
- Implementing a display for available tickets, and the details of flights.
- Giving flight information for the passengers who already have tickets, when requested.
- Providing restaurants, banks, stores etc. to meet the needs of the passengers.
- Employing managers and personnel to organize all the resources.

Making these operations easy to access can be a problem if they are not organized and managed professionally, especially when millions of passengers are flying from a single airport each year. Thus, this problem requires a sophisticated, easy-to-use management system.

- **Users of the System**

Users of this system are, customers, administrators of airline companies and airport, flight managers and check-in/ check-out personnel of airline companies, stores managers and company managers of the airport.

Customers can choose one of 'the customer with ticket' and a 'customer without a ticket' options to enter the system.

#### **Airport Users**

- **Airport Administrator** can add and remove Airline Company Manager and Store Manager.
- **Airline Company Manager** can add and remove Airline Company.
- **Store Manager** can add and remove Store.
- **Airport Traffic Tower** can check the flight information and manage the landing places.

#### **Airline Company Users**

- **Airline Administrator** can add & remove Flight Manager and Airline Personnel.
- **Flight Manager** can check flight information.
- **Airline Personnel** can manage check-in processes.

#### **Customer Users**

- **Ticketed Passenger** can check-in, access flight information and display all stores.
- **Guest** can access flight information on the system.

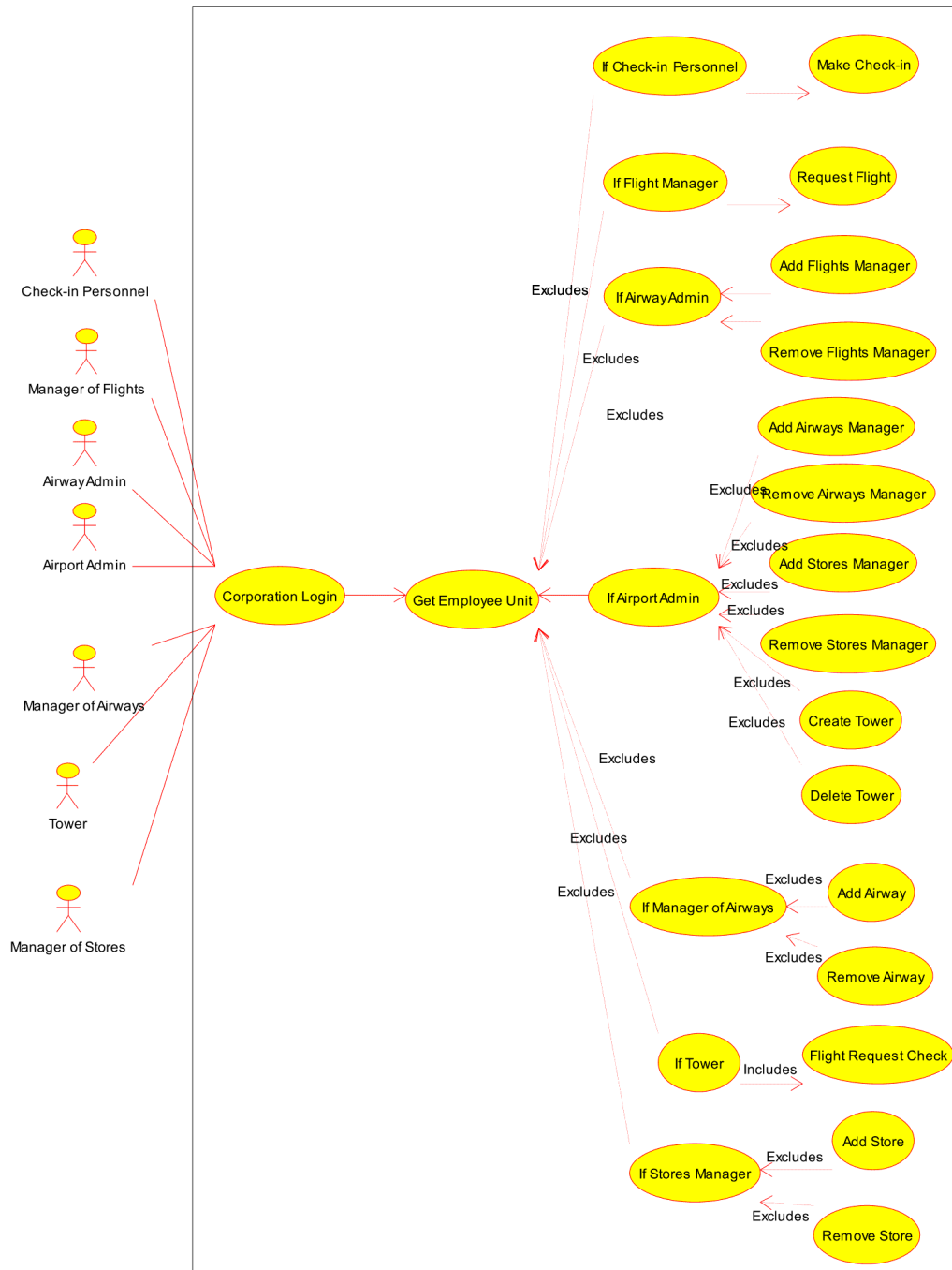
## • Requirements (detailed)

- The system will have separate menus for each user type, including administrators, managers, employees and customers. The menus will have a clear, understandable user interface for the system to be user-friendly.
- The menus for registered users will be accessed only if the correct password is entered. Unless the correct password is entered, a warning will be shown to the user, stating that the password is incorrect.
- The users will only be able to access the operations related to themselves. In other words, no user will be able to make operations that do not belong to them. Also, no private data should be accessed other than the related user.
- The system will provide an interface for both airports and airlines, as these closely work together for the passengers to be able to fly.
- Administrators will be able to add managers and employees, employees will add customers, airline companies' manager will add airline companies and store managers will add stores to the system.
- Aggregation should be used efficiently across the system where new managers, employees, customers etc. are created for better code reusability.
- All possible exceptions should be handled, and an error message should be shown to the user for each exception.
- Customers (passengers) will be able to browse available tickets and see their flight information. They will be able to buy tickets and register to the system to see their flight information from the system.
- Flight managers will be able to access the flight information of the passengers and present it to them.
- Check-in personnel, as the name explains itself, help the passengers to check-in. They can also access to the flight information.
- The airport traffic tower will be able to check flight information and coordinate the flights to determine where they will be landing.

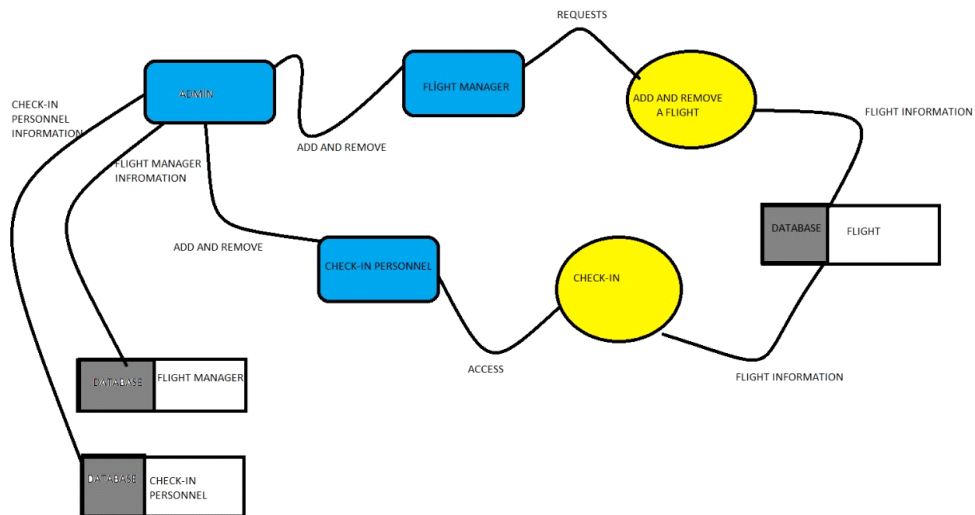
- Use-case diagrams



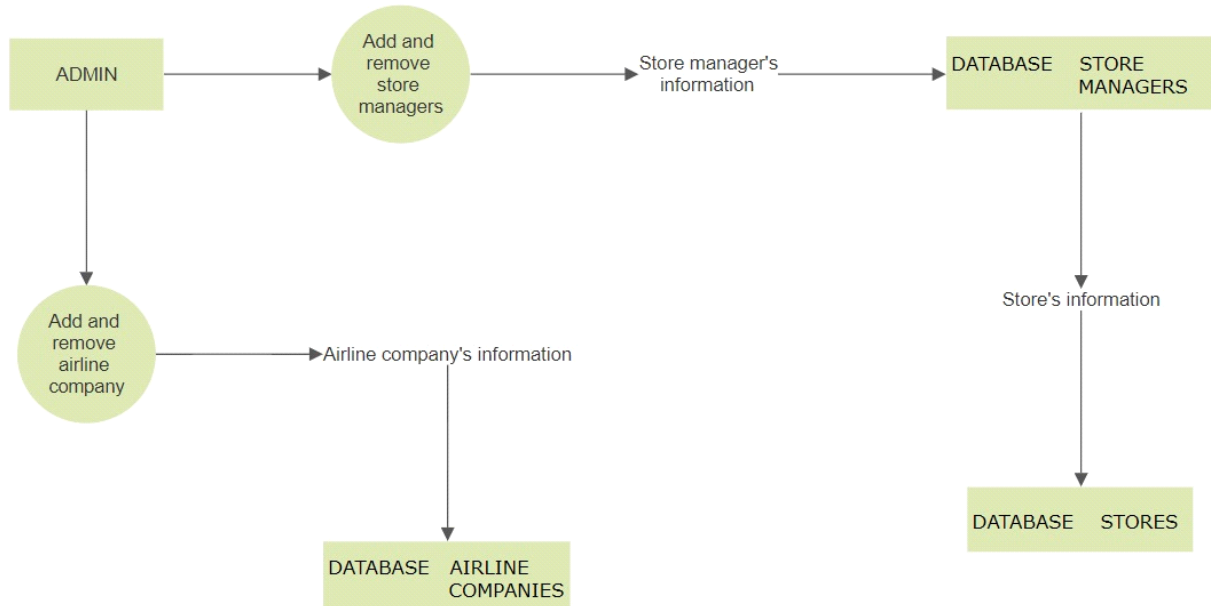
# Employee Login Screen



- **Module diagram (including system modules and their interactions)**



Airport Module Diagram





## Customer Module Diagram

