



Database Management System  
Project on  
**Airport Management System**

Submitted By-

Adarsh Kumar Jain (2015UCP1547)  
Saksham Aggarwal (2015UCP1533)  
Mohit Sharma (2015UCP1511)

Submitted To-

Dr. Namita Mittal

**ABSTRACTION**

The object of this project is to design and implement Airport Management with user interface and administrator interface using PHP . It includes details on such as passenger with fields such as name, address , phone number and passport details which will be stored in database for verification. Reservation details help in reserving seats for the passenger with other details such as date, flight no, code and other details. If the user needs to cancel the reservation he can do cancellation providing details to the administrator. Flight details have to be maintained including flight no, code, source and destination etc which is to be considered during reservation. Airport Management System is developed using PHP and MySQLServer.

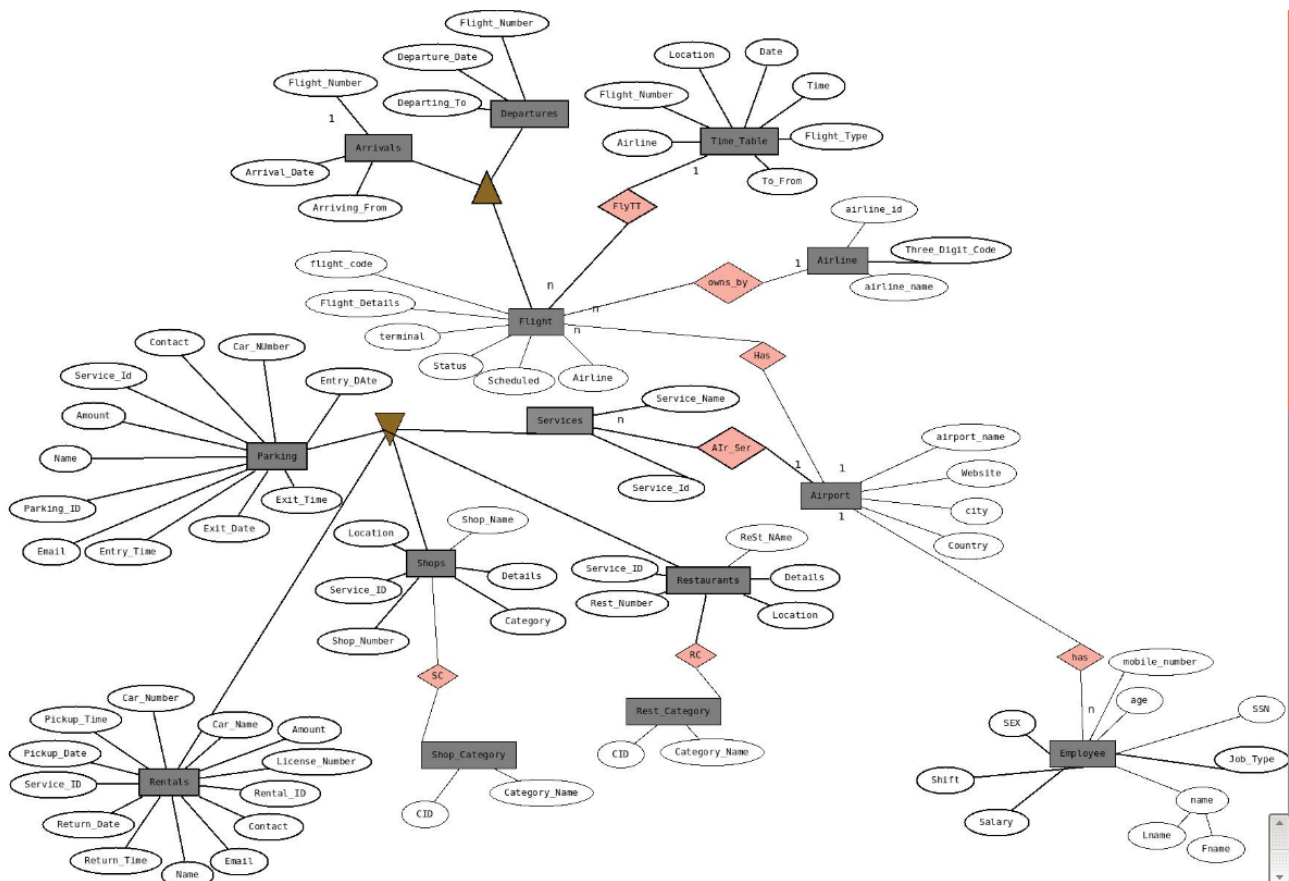
## **REQUIREMENTS OF THE SYSTEM**

- The airport management system primarily deals with management of airport , airlines and flights. The system provides a broad overview of the factorrs that affect an airport managemnt system.
- The database system has the data of the commercial airports.
- An airport is located in a city.
- All international and national airlines have their offices in all major cities and aiports. So we assume that every airport has an airline office in it.
- Airline companies serve flights.
- Every flight has a code associated with it and this code is unique to it.
- Flight serves passengers as it carries a passenger from source to destination.
- Flight can be of two types, arrivals and departures , each having their specific arrival date , arrival time , terminal and deprture date , departure time , terminal associated with it respectively. .
- Airport provides services such as car parking , car rentals , various categories of shops and restaurants for the comfort and pleasure of passengers. .
- Parking Space has fixed maximum number of cars it can hold and the website provides a way for passengers to pre book the parking space by paying the appropriate fee.
- Airport provides for tourists the option of renting various kinds of cars for their ease of motion throughout the stay duration in the city of Jaipur.
- The website also should have an admin through which the data on the website can be adjusted , including adding , removing flights from the time table , adding shops or restaurants on any terminal or adding or removing information about the employees working on the airport , and also managing the parking space .

## **ENTITIES**

1. Airline (Airline\_ID, Airline\_Name ,Three Digit Code )
2. Airport (Name , City\_Name , Country , Website)
3. Employee (SSN , M , Fname , Lname , Address , Phone , Age , Sex ,Job\_Type , Astype , Etype , Shift , Position , Ap\_Name,Salary)
4. Time\_Table (Flight Number , To\_From , Flight\_Type , Time , Date ,Airline , Location)
5. Flight (Flight Code , Flight\_Details , Terminal , Status , Scheduled ,Airline)
6. Arrivals (Flight Number , Arrival\_Date , Arriving\_From)
7. Departures (Flight Number , Departure\_date , Departing\_To)
8. Services (Service\_ID , Service\_Name)
9. Parking (Service\_ID , Parking\_ID , Name , Email , Contact ,Exit\_Date ,Exit\_Time , Entry\_Time , Entry\_Date ,Car\_Number , Amount)
10. Rentals (Service\_ID , Rental\_ID , Name , Email , Contact ,License\_Number , Pickup\_Date , Pickup\_Time ,Return\_Date ,Return\_Time , Car\_Name , Amount)
11. Shops (Service\_ID , Shop Number , Category , Details , Location)
12. Restaurants (Service\_ID, Rest Number , Category , Location ,Details )
13. Shop\_Category (Category\_ID, Category\_Name)
14. Restaurant\_Category (Category\_ID , Category\_Name)

### E-R DIAGRAM



## **RELATIONS**

<b><u>Relation Name</u></b>	<b><u>Entity1</u></b>	<b><u>Entity2</u></b>	<b><u>Cardinality</u></b>
Has	Airport	Flight	1:n
Owns_By	Airline	Flight	1:n
FlyTT	Flight	Time_Table	n:1
Air_Ser	Airport	Service	1:n
HasE	Airport	Employee	1:n
SC	Shops	Shop_Category	1:1
RC	Restaurants	Rest_Category	1:1

## **Assumptions :**

- There are a lot of jobs at an airport but for simplicity we only consider a few of them.
- We assume that there is only one exclusive airport for every city.
- For connecting flights, the airline and