

21-11-2020

Airlines Management System

1. Introduction

The project “Airline Management System” comprises of a large number of flights which belong to a particular airline. The system we have implemented manages different objects viz.

- Airline
- Customers/Traveller
- Ticket

2. Database schema and database creation

- My SQL is used for designing our database.
The following tables are created in the database airline
 - Login
 - Cancellation
 - Passenger
 - Booking
 - Flight

3. Functional Requirements Implemented

- Create a new Customer
- Delete an existing Customer
- Create a new reservation
- Cancel an existing reservation
- Issue a flight ticket
- List all customers known by the system
- List all reservation known by the system
- List all flights known by the system
- Search for a flight based on attributes.
- Display information about a traveler.
- Display information about a flight.

4. Database creation Scripts

```
drop database airline_database;
```

```
create database airline_database;
```

```
use airline_database;
```

```
create table login(username varchar(20) primary key , password varchar(20) );  
create table flight(f_code varchar(10) primary key , f_name varchar(20), src varchar(30), dst  
varchar(30) , cap int);
```

```
create table passenger(p_code int auto_increment , nationality varchar(15), name varchar(20),  
age varchar(3) , gender varchar(10), ph_no varchar(15), passport_no varchar(20), primary key  
(p_code));
```

```
create table booking(pnr_no int auto_increment primary key , f_code varchar(10) , p_code int ,  
foreign key (f_code) references flight (f_code) , foreign key (p_code) references passenger  
(p_code));
```

```
create table cancel (pnr_no int , cancellation_no int auto_increment primary key);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9011', 'Jet Airways', 'Mumbai', 'Delhi'  
, 900);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9012', 'Jet Airways', 'Mumbai',  
'Jaipur' , 600);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9013', 'Jet Airways', 'Mumbai',  
'Lucknow' , 200);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9014', 'Jet Airways', 'Delhi', 'Mumbai'  
, 900);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9015', 'Jet Airways', 'Delhi',  
'Lucknow' , 950);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9016', 'Jet Airways', 'Delhi', 'Jaipur' ,  
550);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9017', 'Jet Airways', 'Jaipur', 'Delhi' ,  
500);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9018', 'Jet Airways', 'Jaipur',  
'Mumbai' , 100);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9019', 'Jet Airways', 'Jaipur',  
'Lucknow' , 800);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9020', 'Jet Airways', 'Lucknow',  
'Mumbai' , 550);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9021', 'Jet Airways', 'Lucknow',  
'Delhi' , 900);
```

```
insert into flight (f_code, f_name, src, dst, cap) values ('JA9022', 'Jet Airways', 'Lucknow',  
'Jaipur' , 660);
```

```
insert into login (username , password) values ('admin' , 'hello');
```

5. Classes Used

- **Login**
- **MainScreen**
- **Add_Customer**
- **All_Flights**
- **All_Passenger**
- **E_Ticket**
- **Flight_Info**
- **Printing**
- **Connect_to_MySql**
- **Cancel**

6. Observations and lessons learned

- It is important to finalize the database design well in advance. Though we managed to discuss the design, we ended up making changes in the way of adding or deleting fields and figuring out referential integrity issues which consumed quite a lot of time.

7. Group Members

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