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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

1. **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
* Reservations
* Flight

1. **Functional Requirements Implemented**
   * Create a new Customer
   * Delete an existing Customer
   * Create a new reservation
   * Cancel an existing reservation
   * Issue a flight ticket
   * Payment options
   * List all customers known by the system
   * List all reservation known by the system
   * List all flights known by the system
   * Change an employee/ customer information (name, address, etc.) ability to change ALL attributes.
   * Change a flights information (time, source, destination etc.) change ALL attributes.

* Search for a flight based on attributes.
* Display information about a traveler.
* Display information about a flight.

1. **Database creation Scripts**

mysql> create database airlines;

Query OK, 1 row affected (0.02 sec)

mysql> use airlines;

Database changed

mysql> create table login(username varchar(20) PRIMARY KEY, password varchar(20));

Query OK, 0 rows affected (0.02 sec)

mysql> create table flight(f\_code varchar(10) PRIMARY KEY, f\_name varchar(20), src varchar(30), dst varchar(30));

Query OK, 0 rows affected (0.02 sec)

mysql> create table reservation (pnr\_no varchar(10) PRIMARY KEY, f\_code varchar(10), jny\_date DATE, jny\_time varchar(10), src varchar(20), dst varchar(20), FOREIGN KEY (f\_code) references flight (f\_code));

Query OK, 0 rows affected (0.02 sec)

mysql> create table passenger (p\_id varchar(10) PRIMARY KEY, pnr\_no varchar(10), nationality varchar(15), name varchar(20), gender varchar(10), age int, ph\_no varchar(15), passport\_no varchar(20), f\_code varchar(10), FOREIGN KEY (f\_code) references flight (f\_code), FOREIGN KEY (pnr\_no) references reservation (pnr\_no));

Query OK, 0 rows affected (0.02 sec)

mysql> create table cancellation (pnr\_no varchar(10), cancellation\_no varchar(10), cancellation\_date datetime, fli\_code varchar(15), PRIMARY KEY (cancellation\_no), FOREIGN KEY (pnr\_no) REFERENCES reservation (pnr\_no));

Query OK, 0 rows affected (0.03 sec)

mysql> create table payment(p\_id varchar(10), pnr\_no varchar(10), ph\_no varchar(15), cheque\_no varchar(15), card\_no varchar(20), paid\_amt varchar(10), pay\_date datetime, FOREIGN KEY (p\_id) REFERENCES passenger (p\_id), FOREIGN KEY (pnr\_no) REFERENCES reservation (pnr\_no));

Query OK, 0 rows affected (0.02 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9011', 'Jet Airways', 'Mumbai', 'Delhi');

Query OK, 1 row affected (0.01 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9012', 'Jet Airways', 'Mumbai', 'Jaipur');

Query OK, 1 row affected (0.01 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9013', 'Jet Airways', 'Mumbai', 'Lucknow');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9014', 'Jet Airways', 'Delhi', 'Mumbai');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9015', 'Jet Airways', 'Delhi', 'Lucknow');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9016', 'Jet Airways', 'Delhi', 'Jaipur');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9017', 'Jet Airways', 'Jaipur', 'Delhi');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9018', 'Jet Airways', 'Jaipur', 'Mumbai');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9019', 'Jet Airways', 'Jaipur', 'Lucknow');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9020', 'Jet Airways', 'Lucknow', 'Mumbai');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9021', 'Jet Airways', 'Lucknow', 'Delhi');

Query OK, 1 row affected (0.00 sec)

mysql> insert into flight (f\_code, f\_name, src, dst) values ('JA9022', 'Jet Airways', 'Lucknow', 'Jaipur');

Query OK, 1 row affected (0.00 sec)

1. **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.

1. **Group Members**

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