Orange Air Airport Management System
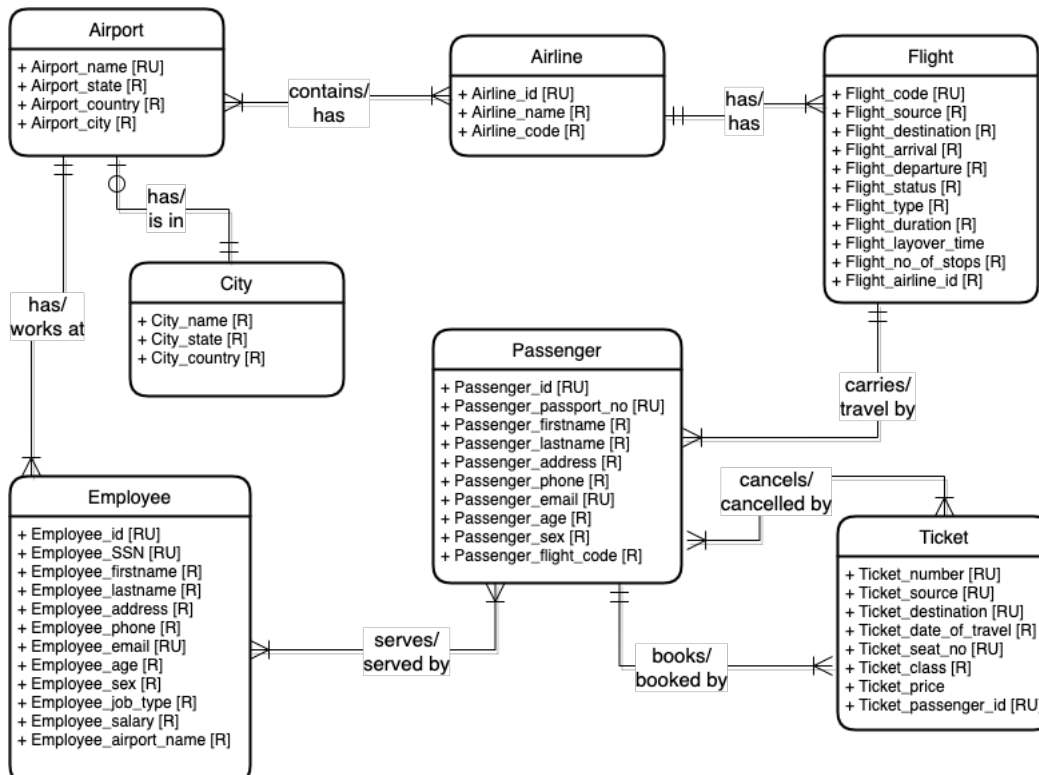
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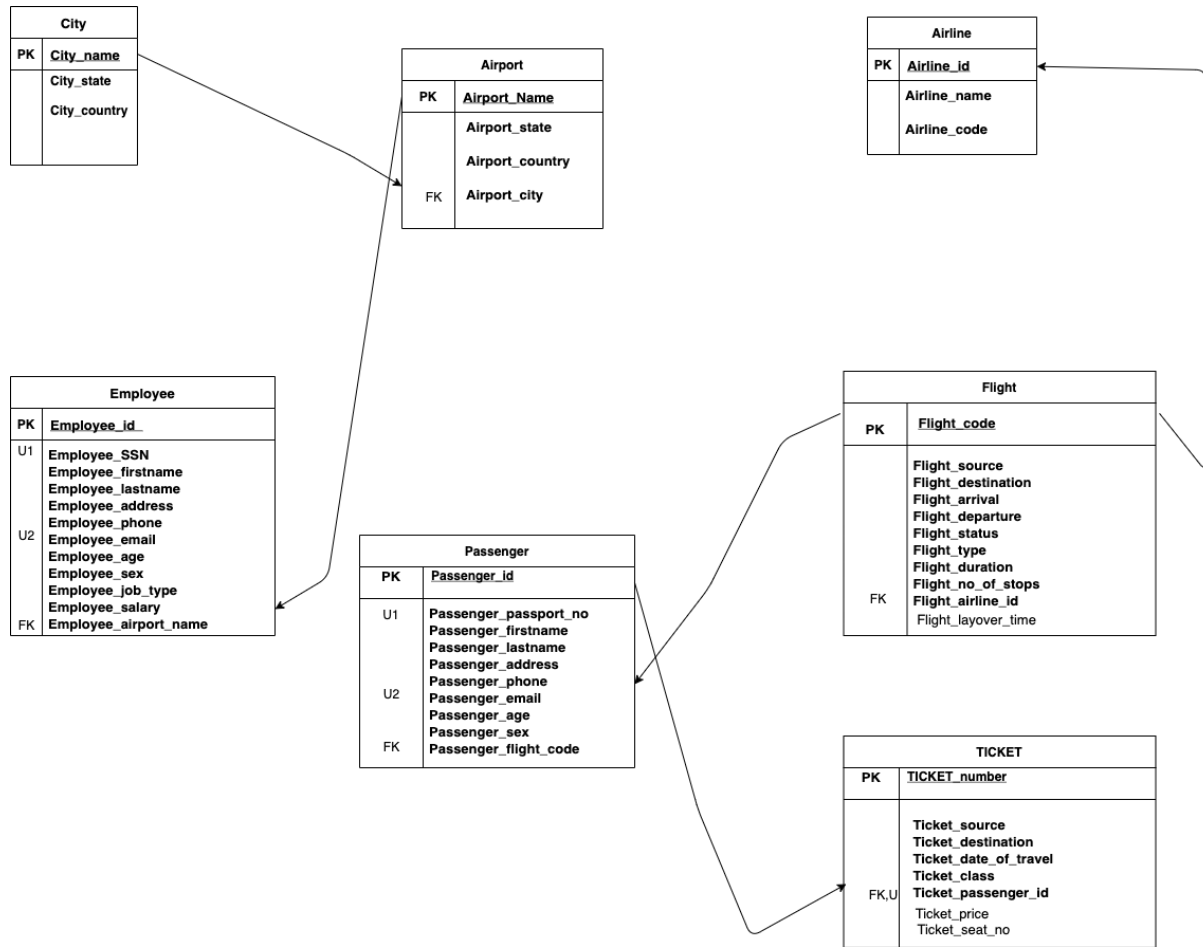
1. Business Problem:

Given the day-to-day travel plans of people across the globe, the data generated each day is unique and maintaining organized records becomes a hassle. If the airport management staff have a proper system to view, update information of passengers, flights, employees at such airports, tickets, etc. it would make their life easier. Hence, to facilitate smooth working of airports and easier management, we built an application for admins working at Orange Air airports.

2. Conceptual Data Model:

In the conceptual model, we have shown the relationship between different tables and how each attribute in the table is defined.

3. Logical Data Model:

City

PK	City_name
	City_state
	City_country

Airport

PK	Airport_Name
	Airport_state
	Airport_country
FK	Airport_city

Airline

PK	Airline_id
	Airline_name
	Airline_code

Employee

PK	Employee_id
U1	Employee_SSN
	Employee_firstname
	Employee_lastname
	Employee_address
	Employee_phone
U2	Employee_email
	Employee_age
	Employee_sex
	Employee_job_type
	Employee_salary
FK	Employee_airport_name

Passenger

PK	Passenger_id
U1	Passenger_passport_no
	Passenger_firstname
	Passenger_lastname
	Passenger_address
	Passenger_phone
U2	Passenger_email
	Passenger_age
	Passenger_sex
FK	Passenger_flight_code

Flight

PK	Flight_code
	Flight_source
	Flight_destination
	Flight_arrival
	Flight_departure
	Flight_status
	Flight_type
	Flight_duration
	Flight_no_of_stops
FK	Flight_airline_id
	Flight_layover_time

TICKET

PK	TICKET_number
	Ticket_source
	Ticket_destination
	Ticket_date_of_travel
	Ticket_class
FK,U	Ticket_passenger_id
	Ticket_price
	Ticket_seat_no

In logical model, we have defined which entity is connected to which other entity and defined all the constraints of each entity.
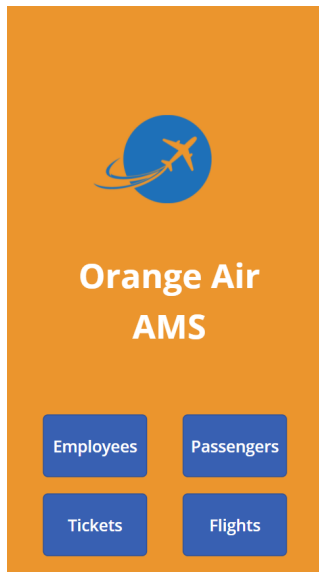
4. Identification of Data Logic:

We have implemented data logic on the following as:
- Passenger: To find passenger flight and ticket information and also update flight related information.
- Employee: To lookup employees job details and also update them who areworking at Orange Air
- Ticket: Letting an admin view the cancelled and confirmed tickets.
- Flight: To lookup flight details like status, departure, layover time, etc.

5. Layout of Application Screens:

Intro Page : To navigate across different screens from the home page.

Employee: An admin can view employee name, job type, work location etc. from the below screens

Passengers: An admin can view passenger's personal and flight details from the below screens.

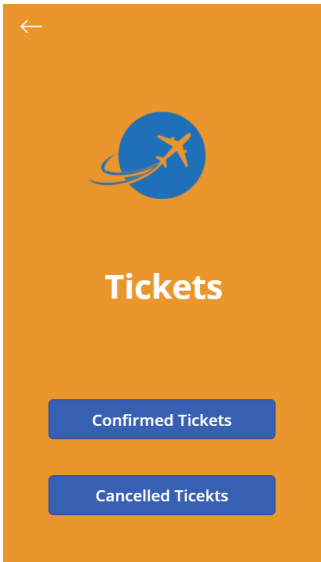**Tickets:** Ticket's intro page navigates to confirmed and cancelled tickets which further navigate to details of the respective ticket selected from the below screens.

Confirmed

KHYATI MISHRA BA1689	12/25/2021 12:00 AM	>
LAKSHMI SHARMA 9W2334	2/12/2022 12:00 AM	>
KARAN MOTANI BA3056	12/30/2021 12:00 AM	>
ROM SOLANKI AA4367	12/15/2021 12:00 AM	>
John GATES LH9876	12/31/2021 12:00 AM	>
SARA GOMES EY1234	1/12/2022 12:00 AM	>
RIA GUPTA QR1902	12/22/2021 12:00 AM	>

Confirmed Passenger Info

Passenger Name
KHYATI MISHRA

Ticket Number
99702

Flight Code
BA1689

Email
kmishra@ams.com

From
IAH

To
DEL

Date of Journey
12/25/2021 12:00 AM

Cancelled

ALEN SMITH QR1902	asmith@ams.com	>
ANKITA AHIR EK3456	aahir@ams.com	>
ANKITA PATIL AI2014	apatil@ams.com	>
TEJASHREE PANDIT EY1234	tpandit@ams.com	>
AKHILESH JOSHI QR2305	ajoshi@ams.com	>
MANAN LAKHANI LH9876	mlakhani@ams.com	>
ALIA BHAT BA3056	abhat@ams.com	>
JOHN SMITH 9W2334	jsmith@ams.com	>

Cancelleded Passenger Info

Passenger Name
ALEN SMITH

Ticket Number
99700

Flight Code
QR1902

Email
asmith@ams.com

From
BOM

To
DFW

Date of Cancellation
5/12/2021 12:00 AM

Flight: An admin can view flight details like source, destination, status, etc. from the below screens.

Flights		
Search items		
SFO - FRA AA4367	21.15 hrs On-time	>
JFK - BOM LH9876	18.5 hrs On-time	>
JFK - TPA EY1234	16.75 hrs On-time	>
IXC - IAH QR1902	28.75 hrs Delayed	>
IAH - DEL 9W2334	13.25 hrs On-time	>
FRA - DEL BA1689	14 hrs On-time	>
BOM - QR2305	21 hrs Delayed	>
BOM - EK3456	15.5 hrs On-time	>
BOM - BA3056	29 hrs On-time	>
BOM -	24.25 hrs	

Flight Info

Flight
9W2334

From
IAH

Departs at
1/1/1900 1:45 PM

To
DEL

Arrives at
1/1/1900 11:00 PM

Duration
13.25

Stops
0

Layover Time
0

6. SQL UP/DOWN Scripts:

DOWN

```
1   if not exists(select * from sys.databases where name='orange_ams')
2       create database orange_ams
3   GO
4
5   use orange_ams
6   GO
7
8
9   --DOWN
10  DROP PROCEDURE if EXISTS change_passenger_passport_no
11  DROP PROCEDURE if EXISTS change_employee_dept
12  DROP PROCEDURE if EXISTS pass_fl
13  DROP PROCEDURE if EXISTS emp_air_data_new
14  DROP PROCEDURE if EXISTS flight_data_new
15  if exists(select * from INFORMATION_SCHEMA.VIEWS
16      WHERE TABLE_NAME='view_ontime_connecting_flights')
17      DROP VIEW view_ontime_connecting_flights
18  if exists(select * from INFORMATION_SCHEMA.VIEWS
19      WHERE TABLE_NAME='view_ontime_flights')
20      DROP VIEW view_ontime_flights
21  if exists(select * from INFORMATION_SCHEMA.VIEWS
22      WHERE TABLE_NAME='view_delayed_flights')
23      DROP VIEW view_delayed_flights
24  if exists(select * from INFORMATION_SCHEMA.VIEWS
25      WHERE TABLE_NAME='view_ticket_confirmed')
26      DROP VIEW view_ticket_confirmed
27  if exists(select * from INFORMATION_SCHEMA.VIEWS
28      WHERE TABLE_NAME='view_ticket_cancelled')
29      DROP VIEW view_ticket_cancelled
30  if exists(select * from INFORMATION_SCHEMA.TABLE_CONSTRAINTS
31      WHERE CONSTRAINT_NAME='fk_ticket_passenger_id')
32      ALTER TABLE ticket DROP CONSTRAINT fk_ticket_passenger_id
33  DROP TABLE if EXISTS ticket
34  if exists(select * from INFORMATION_SCHEMA.TABLE_CONSTRAINTS
35      WHERE CONSTRAINT_NAME='fk_employee_airport_name')
36      ALTER TABLE employee DROP CONSTRAINT fk_employee_airport_name
37  DROP TABLE if EXISTS employee
38  if exists(select * from INFORMATION_SCHEMA.TABLE_CONSTRAINTS
39      WHERE CONSTRAINT_NAME='fk_passenger_flight_code')
40      ALTER TABLE passenger DROP CONSTRAINT fk_passenger_flight_code
41  DROP TABLE if EXISTS passenger
42  if exists(select * from INFORMATION_SCHEMA.TABLE_CONSTRAINTS
43      WHERE CONSTRAINT_NAME='fk_flight_airline_id')
44      ALTER TABLE flight DROP CONSTRAINT fk_flight_airline_id
45  DROP TABLE if EXISTS flight
46  if exists(select * from INFORMATION_SCHEMA.TABLE_CONSTRAINTS
47      WHERE CONSTRAINT_NAME='fk_airport_city')
48      ALTER TABLE airport DROP CONSTRAINT fk_airport_city
49  DROP TABLE if EXISTS airport
50  DROP TABLE if EXISTS airline
51  DROP TABLE if EXISTS city
```

UP Metadata

```sql
54   GO
55   --UP Metadata
56   CREATE TABLE city
57   (
58   City_name VARCHAR(25) not null,
59   City_state VARCHAR(25) not null,
60   City_country VARCHAR(10) not null,
61   constraint pk_city_city_name PRIMARY KEY(City_name)
62   )
63
64   ALTER table city alter COLUMN City_country VARCHAR(25) not null
65
66   CREATE table airline(
67   airline_id INT IDENTITY not null,
68   airline_name varchar (20) not null,
69   airline_code varchar (10) not null,
70   constraint pk_airline_airline_id PRIMARY KEY (airline_id)
71   )
72
73   create table airport(
74       airport_name varchar (50) unique not null,
75       airport_city varchar(25) not null,
76       airport_state varchar (25) not null,
77       airport_country varchar (25) not null,
78       airport_airline_id int not null,
79       constraint pk_airport_airport_name PRIMARY KEY (airport_name),
80       CONSTRAINT fk_airport_city foreign Key (airport_city)
81        | REFERENCES city(City_name)
82   )
83
84   ALTER table airport
85   DROP COLUMN airport_airline_id
86
87   CREATE TABLE flight(
88       flight_code VARCHAR(10) unique not null,
89       flight_source VARCHAR(20) not null,
90       flight_destination VARCHAR(20) not null,
91       flight_arrival DATETIME not null,
92       flight_departure DATETIME not null,
93       flight_status VARCHAR(10) not null,
94       flight_type VARCHAR(10) not null,
95       flight_duration float not null,
96       flight_layover_time float,
97       flight_no_of_stops INT not null,
98       flight_airline_id INT not null,
99       constraint pk_flight_flight_code PRIMARY KEY (flight_code),
100      CONSTRAINT fk_flight_airline_id foreign Key (flight_airline_id)
101       | REFERENCES airline(airline_id)
102  )
```

```sql
104   create table passenger(
105       passenger_id int UNIQUE IDENTITY not null,
106       passenger_passport_no varchar(15) UNIQUE not null,
107       passenger_firstname varchar(25) not null,
108       passenger_lastname varchar(25) not null,
109       passenger_address varchar(50) not null,
110       passenger_phone int not null,
111       passenger_email varchar(25) unique not null,
112       passenger_age int not null,
113       passenger_sex varchar(5) not null,
114       passenger_flight_code varchar (10) not null,
115       constraint pk_passenger_passenger_id PRIMARY KEY(passenger_id),
116       CONSTRAINT fk_passenger_flight_code foreign Key (passenger_flight_code)
117        | REFERENCES flight(flight_code)
118   )
119
120   ALTER table passenger
121   alter COLUMN passenger_phone bigint not null
122
123   create table employee(
124       employee_id int IDENTITY not null,
125       employee_ssn VARCHAR(20) UNIQUE not null,
126       employee_firstname varchar(25) not null,
127       employee_lastname varchar(25) not null,
128       employee_address varchar(50) not null,
129       employee_phone int not null,
130       employee_email varchar(25) unique not null,
131       employee_age int not null,
132       employee_sex varchar(5) not null,
133       employee_job_type VARCHAR(20) not null,
134       employee_salary int not null,
135       employee_airport_name varchar(50) not null,
136       constraint pk_employee_employee_id PRIMARY KEY(employee_id),
137       CONSTRAINT fk_employee_airport_name foreign key(employee_airport_name)
138        | references airport(airport_name)
139   )
140
141   ALTER table employee
142   alter COLUMN employee_phone bigint not null
143   ALTER table employee alter COLUMN employee_job_type varchar(50) not null
144
```

```sql
create table ticket(
    ticket_number INT IDENTITY (99700,1) not null,
    ticket_source VARCHAR(20) not null,
    ticket_destination VARCHAR(20) not null,
    ticket_date_of_travel DATETIME not NULL,
    ticket_seat_no VARCHAR(5),
    ticket_class varchar(10) not null,
    ticket_price money,
    ticket_passenger_id int UNIQUE not null,
    constraint pk_ticket_ticket_number PRIMARY KEY(ticket_number),
    CONSTRAINT fk_ticket_passenger_id foreign Key (ticket_passenger_id)
    REFERENCES passenger(passenger_id)
)

alter table ticket add ticket_date_of_booking datetime not null
alter table ticket add ticket_date_of_cancellation datetime
ALTER table ticket alter COLUMN ticket_class VARCHAR(25) not null

GO
-- Info to display on cancelled page
CREATE VIEW view_ticket_cancelled as
    select passenger_firstname + ' ' + passenger_lastname as passenger_name, passenger_email, passenger_flight_code,
        ticket_number, ticket_source, ticket_destination, ticket_date_of_travel, ticket_date_of_cancellation
        from passenger
            right join ticket on passenger_id = ticket_passenger_id
        where ticket_date_of_cancellation > 1900-01-01
GO


-- Info to display on confirmed page
CREATE VIEW view_ticket_confirmed as
select passenger_firstname + ' ' + passenger_lastname as passenger_name, passenger_email, passenger_flight_code,
    ticket_number, ticket_source, ticket_destination, ticket_date_of_travel, ticket_date_of_booking
    from passenger
        right join ticket on passenger_id = ticket_passenger_id
    where ticket_date_of_cancellation < 1901-01-01
GO

-- Delayed Flights
CREATE VIEW view_delayed_flights as
select flight_status, flight_code, flight_source, flight_destination,flight_departure
from flight
where flight_status='Delayed'
GO

-- On-time Flights
CREATE VIEW view_ontime_flights as
select flight_status, flight_code, flight_source, flight_destination,flight_departure
from flight
where flight_status='On-time'
GO
```

```sql
-- On-time and Connecting Flights
CREATE VIEW view_ontime_connecting_flights as
select flight_status, flight_code, flight_source, flight_destination,flight_departure
from flight
where flight_status='On-time' and flight_type='Connecting'
GO

-- Finding out source and destination of a flight
CREATE PROCEDURE flight_data_new (
    @fc varchar(10)
) as begin
    declare @fsc varchar(20)
    declare @fds varchar(20)
        select
            @fsc = flight_source,
            @fds = flight_destination
        from flight
        where @fc = flight_code
    print 'Flight ' + @fc + ' departs from ' + @fsc +
            ' and arrives at ' + @fds
end

exec flight_data_new
    @fc = 'AI2014'
GO

-- Which airport does an employee work in?
CREATE PROCEDURE emp_air_data_new (
    @e_id int
)   as BEGIN
        declare @e_fn varchar(25)
        declare @e_ln varchar(25)
        declare @e_ap varchar(50)
            select
                @e_fn = employee_firstname,
                @e_ln = employee_lastname,
                @e_ap = employee_airport_name
            from employee
            where @e_id = employee_id
        print @e_fn + ' ' + @e_ln + ' works at ' + @e_ap
    end

exec emp_air_data_new
    @e_id = 8
GO
```

8

UP Data

```sql
293    -- UP Data
294    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Louisville','Kentucky','United States');
295    INSERT INTO CITY (City_name, City_state, City_country) VALUES ('Chandigarh','Chandigarh','India');
296    INSERT INTO CITY (City_name, City_state, City_country) VALUES ('Fort Worth','Texas','United States');
297    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Delhi','Delhi','India');
298    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Mumbai','Maharashtra','India');
299    INSERT INTO CITY (City_name, City_state, City_country) VALUES('San Francisco', 'California', 'United States');
300    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Frankfurt','Hesse','Germany');
301    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Houston','Texas','United States');
302    INSERT INTO CITY (City_name, City_state, City_country) VALUES('New York City','New York','United States');
303    INSERT INTO CITY (City_name, City_state, City_country) VALUES('Tampa', 'Florida', 'United States');
304
305    INSERT INTO AIRLINE (airline_name, airline_code) VALUES('American Airlines','AA');
306    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('AI','Air India Limited');
307    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('LH','Lufthansa');
308    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('BA','British Airways');
309    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('QR','Qatar Airways');
310    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('9W','Jet Airways');
311    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('EK','Emirates');
312    INSERT INTO AIRLINE (airline_code, airline_name) VALUES('EY','Ethiad Airways');
313
314    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Louisville International Airport','Kentucky','United States','Louisville');
315    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Chandigarh International Airport','Chandigarh','India','Chandigarh');
316    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Dallas/Fort Worth International Airport','Texas','United States','Fort Worth');
317    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Indira GandhiInternational Airport','Delhi','India','Delhi');
318    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Chhatrapati Shivaji International Airport','Maharashtra','India','Mumbai');
319    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('San Francisco International Airport','California', 'United States','San Francisco');
320    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Frankfurt Airport','Hesse','Germany','Frankfurt');
321    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('George Bush Intercontinental Airport','Texas','United States','Houston');
322    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('John F. Kennedy International Airport','New York','United States','New York City');
323    INSERT INTO AIRPORT (airport_name, airport_state, airport_country, airport_city) VALUES('Tampa International Airport','Florida', 'United States','Tampa');
324
325    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
326    VALUES('AI2014','BOM','DFW','02:10','03:15','On-time',24.25,'Connecting',3,1,2);
327    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
328    VALUES('QR2305','BOM','DFW','13:00','13:55','Delayed',21.0,'Non-stop',0,0,5);
329    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
330    VALUES('EY1234','JFK','TPA','19:20','20:05','On-time',16.75,'Connecting',5,2,8);
331    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
332    VALUES('LH9876','JFK','BOM','05:50','06:35','On-time',18.50,'Non-stop',0,0,3);
333    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
334    VALUES('BA1689','FRA','DEL','10:20','10:55','On-time',14.0,'Non-stop',0,0,4);
335    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
336    VALUES('AA4367','SFO','FRA','18:10','18:55','On-time',21.15,'Non-stop',0,0,1);
337    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
338    VALUES('QR1902','IXC','IAH','22:00','22:50','Delayed',28.75,'Non-stop',5,1,5);
339    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
340    VALUES('BA3056','BOM','DFW','02:15','02:55','On-time',29.0,'Connecting',3,1,4);
341    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)
342    VALUES('EK3456','BOM','SFO','18:50','19:40','On-time',15.5,'Non-stop',0,0,7);
343    INSERT INTO FLIGHT(flight_code, flight_source, flight_destination, flight_arrival, flight_departure, flight_status, flight_duration, flight_type, flight_layover_time, flight_no_of_stops, flight_airline_id)


346    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
347    VALUES('A1234568','ALEN','SMITH','2230 NORTHSIDE, APT 11, ALBANY, NY',8080367290,30,'M','asmith@ams.com','QR1902');
348    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
349    VALUES('B9876541','ANKITA','AHIR','3456 VIKAS APTS, APT 102,DOMBIVLI, INDIA',8080367280,26,'F','aahir@ams.com','EK3456');
350    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
351    VALUES('C2345698','KHYATI','MISHRA','7820 MCCALLUM COURTS, APT 234, AKRON, OH',8082267280,30,'F','kmishra@ams.com','BA1689');
352    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
353    VALUES('D1002004','ANKITA','PATIL','7720 MCCALLUM BLVD, APT 1082, DALLAS, TX',9080367266,23,'F','apatil@ams.com','AI2014');
354    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
355    VALUES('X9324666','TEJASHREE','PANDIT','9082 ESTAES OF RICHARDSON, RICHARDSON, TX',9004360125,28,'F','tpandit@ams.com','EY1234');
356    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
357    VALUES('B8765430','LAKSHMI','SHARMA','1110 FIR HILLS, APT 903, AKRON, OH',7666190505,30,'F','lsharma@ams.com','9W2334');
358    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
359    VALUES('J9801235','AKHILESH','JOSHI','345 CHATHAM COURTS, APT 678, MUMBAI, INDIA',9080369290,29,'M','ajoshi@ams.com','QR2305');
360    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
361    VALUES('A1122334','MANAN','LAKHANI','5589 CHTHAM REFLECTIONS, APT 349 HOUSTON, TX',9004335126,25,'F','mlakhani@ams.com','LH9876');
362    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
363    VALUES('Q1243567','KARAN','MOTANI','4444 FRANKFORD VILLA, APT 77, GUILDERLAND, NY',9727626643,22,'M','kmotani@ams.com','BA3056');
364    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
365    VALUES('S1243269','ROM','SOLANKI','7720 MCCALLUM BLVD, APT 2087, DALLAS, TX',9004568903,60,'M','rsolanki@ams.com','AA4367');
366    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
367    VALUES('E3277889','John','GATES','1234 BAKER APTS, APT 59, HESSE, GERMANY',9724569986,10,'M','jgates@ams.com','LH9876');
368    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
369    VALUES('K3212322','SARA','GOMES','6785 SPLITSVILLA, APT 34, MIAMI, FL',9024569226,15,'F','sgomes@ams.com','EY1234');
370    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
371    VALUES('P3452390','ALIA','BHAT','548 MARKET PLACE, SAN Francisco, CA',9734567800,10,'F','abhat@ams.com','BA3056');
372    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
373    VALUES('W7543336','JOHN','SMITH','6666 ROCK HILL, APT 2902, TAMPA, FL',4624569986,55,'M','jsmith@ams.com','9W2334');
374    INSERT INTO PASSENGER(passenger_passport_no, passenger_firstname, passenger_lastname, passenger_address, passenger_phone, passenger_age, passenger_sex, passenger_email, passenger_flight_code)
375    VALUES('R8990566','RIA','GUPTA','3355 PALENCIA, APT 2065, MUMBAI, INDIA',4724512343,10,'M','agupta@ams.com','QR1902');
376
377    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
378    VALUES(123456789,'LINDA','GOODMAN','731 Fondren, Houston, TX',4356789345, 35,'lgoodman@ams.com', 'F','ADMINISTRATIVE SUPPORT','Louisville International Airport',50000);
379    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
380    VALUES(333445555,'JOHNY','PAUL','638 Voss, Houston, TX',9834561995, 40,'jpaul@ams.com', 'M','ADMINISTRATIVE SUPPORT','Louisville International Airport',50000);
381    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
382    VALUES(999887777,'JAMES','BOND','3321 Castle, Spring, TX',9834666995, 50,'jbond@ams.com', 'M','ENGINEER','Louisville International Airport',70000);
383    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
384    VALUES(987654321,'SHERLOCK','HOLMES','123 TOP HILL, SAN Francisco,CA',8089654321, 47,'sholmes@ams.com', 'M','TRAFFIC MONITOR','San Francisco International Airport',80000);
385    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
386    VALUES(666884444,'SHELDON','COOPER','345 CHERRY PARK, HESSE,GERMANY',1254678903, 55,'scooper@ams.com', 'M','TRAFFIC MONITOR','Frankfurt Airport',80000);
387    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
388    VALUES(453453453,'RAJ','SHARMA','345 FLOYDS, MUMBAI,INDIA',4326789031, 35,'rsharma@ams.com', 'M','AIRPORT AUTHORITY','Chhatrapati Shivaji International Airport',90000);
389    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
390    VALUES(987987987,'NIKITA','PAUL','110 SYNERGY PARK, DALLAS,TX',5678904325, 33,'npaul@ams.com', 'F','ENGINEER','Dallas/Fort Worth International Airport',70000);
391    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
392    VALUES(888665555,'SHUBHAM','GUPTA','567 CHANDANI CHOWK, DELHI, INDIA',8566778890, 39,'sgupta@ams.com', 'M','ADMINISTRATIVE SUPPORT','Indira GandhiInternational Airport',50000);
393    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
394    VALUES(125478989,'PRATIK','GOMES','334 VITRUVIAN PARK, ALBANY, NY',4444678903, 56,'pgomes@ams.com', 'M','TRAFFIC MONITOR','John F. Kennedy International Airport',80000);
395    INSERT INTO EMPLOYEE(employee_ssn, employee_firstname, employee_lastname, employee_address, employee_phone, employee_age,employee_email, employee_sex, employee_job_type, employee_airport_name,employee_salary)
396    VALUES(324567897,'ADIT','DESAI','987 SOMNATH, CHANDIGARH, INDIA',2244658909, 36,'adesai@ams.com', 'M','TRAFFIC MONITOR','Chandigarh International Airport',80000);
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398  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
399  VALUES('BOM','DFW','11-MAY-21','12-MAY-21','15-DEC-21','32A','ECONOMY',1000,1);
400  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
401  VALUES('JFK','BOM','11-JUN-21','10-DEC-21','20-DEC-16','45D','ECONOMY',1200,2);
402  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
403  VALUES('IAH','DEL','21-AUG-21','','25-DEC-21','1A','BUSINESS',900,3);
404  INSERT INTO TICKET( TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
405  VALUES('IXC','IAH','10-AUG-21','30-SEP-21','12-JAN-22','20C','FIRST-CLASS',1150,4);
406  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
407  VALUES('JFK','TPA','13-JUN-21','9-DEC-21','10-DEC-21','54E','ECONOMY',850,5);
408  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
409  VALUES('BOM','DFW','11-NOV-21','','12-FEB-22','43B','ECONOMY',975,6);
410  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
411  VALUES('IAH','DEL','15-NOV-21','1-DEC-21','25-DEC-21','27B','FIRST-CLASS',780,7);
412  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
413  VALUES('SFO','FRA','15-OCT-21','10-NOV-21','18-DEC-21','34E','ECONOMY',800,8);
414  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
415  VALUES('IXC','IAH','12-NOV-21','','30-DEC-21','54C','ECONOMY',1175,9);
416  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
417  VALUES('BOM','SFO','22-JAN-21','','15-DEC-21','38A','ECONOMY',1250,10);
418  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
419  VALUES('FRA','DEL','19-OCT-21','','31-DEC-21','57F','ECONOMY',650,11);
420  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
421  VALUES('IXC','IAH','20-NOV-21','','12-JAN-22','45D','ECONOMY',1000,12);
422  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
423  VALUES('BOM','DFW','13-MAY-21','25-MAY-21','15-DEC-21','37C','ECONOMY',1300,13);
424  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
425  VALUES('FRA','DEL','26-JUN-21','30-NOV-21','23-DEC-21','55C','ECONOMY',790,14);
426  INSERT INTO TICKET(TICKET_SOURCE, TICKET_DESTINATION, TICKET_DATE_OF_BOOKING, TICKET_DATE_OF_CANCELLATION, TICKET_DATE_OF_TRAVEL, TICKET_SEAT_NO, TICKET_CLASS, TICKET_PRICE,ticket_passenger_id)
427  VALUES('BOM','DFW','11-AUG-21','','22-DEC-21','33F','ECONOMY',999,15);
428
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VERIFICATION

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429  GO
430  -- Verify
431  select * from city
432  select * from airline
433  select * from airport
434  select * from flight
435  select * from passenger
436  select * from employee
437  select * from ticket
438
```

7. Links for working application:

Video demo

PowerApps Link

8. Team Log:

- Conceptual Diagram: Kirat
- Logical: Vinit
- Creating and Updating Tables: Vinit, Kirat, Pranav
- UP/DOWN Scripts: Vinit, Kirat
- Inserting Data: Vinit
- PowerApps: Pranav
- Stored Procedure and Views: Pranav
- PowerPoint Presentation: Pranav
- Report: Kirat, Pranav, Vinit

9. Acknowledgements:

We would like to thank Professor Stephen Rieks for guiding us through the implementation of the project.

10. References:

- Textbook and lecture slides by Professor Michael Fudge
- Geeksforgeeks.com
- Stackoverflow.com