

Database Project

Project Title: Airline Reservation Database

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INTRODUCTION

This project on Airline Database Management System is the online of registration process of airline system. The system is able to provide information like Flight detail, passenger's information, fair detail, and flight path detail. The system also allows us to add records when a passenger reserves a ticket. For data storage and retrieval we are using PostgreSQL server. It enables us to add any number of records in our database.

Objective of the project:

- To provide information about reservation in airlines management.
- To help airlines system in making their business more efficient.
- An added attraction for their potential customers.
- It will be more user friendly and accurate and optimal database.

Data Requirement:

For this we have created different entities.

- **Company**

It has attributes i.e. c_id (Primary key) it is unique, c_name (company name), head_quarter, company_url.

- **Flight_status**

It has attributes i.e flight_status_id (Primary key), it is unique flight_status_name like international or domestic

- **Flight_detail**

It has attributes i.e flight_no (Primary key), flight_name ,c_id, flight_type_id

We are assuming that all flight_no are unique for all companies.

- **Route**

It has attributes i.e. route_id (Primary key), Source, Destination.

We assuming this entities cover airports.

Here will be all possible route detail.

Example.

{A -> B->C->D}

For this

{A->B,

A->C,

A->D,

B->C,

B->D,

C->D }

- **Days**

It has attributes i.e. day_id(Primary key) ,day_name all week days.

- **All_path**

It has attributes i.e. flight_no (primary key), rout_id.

This is a particular flight all path details.

If flight_no 1111 (A->B->C->D)

For this

{A->B,

A->C,

A->D,

B->C,

B->D,

C->D }

- **Flight_route**

It has attributes i.e. flight_no, flight_route_id, rout_id, dept_day, depart_time, arrival_time.

This entities help for the particular flight path in orderwise.

If flight_no 1111 (A->B->C->D)

{

1111, 1 , A->B,

1111, 2 , B->C,

1111, 3 , C->D}

- **Users**

It has attributes i.e. user_id (primary key) , { fname , lname } (composite attribute) , gender , dob , emailid , contact_no , address , country.

- **Class**

It has attributes class_id (Primary key), class_name.

This is two type class in this database system one is business and other is general.

- **Ticket**

It has attributes i.e pnr_no (primary key) this will be unique in our database, user_id, flight_no, class_id , route_id , booking_date , journey_date.

- **Passenger_status**

It has attributes i.e passenger_status_id (primary_key), passenger_status_name. In this entity three type of status below 3 year age and more than this and pwd.

- **Passenger**

It has attributes i.e. { pnr_no , seat_no (weak entity) } (primary key) , { fname , lname } (composite attribute) , gender , age.

This is weak entity dependent on ticket entity.

- **fare_detail**

It has attributes i.e primarykey (flight_no, route_id, class_id, passenger_status_id) fare. This entity has all foreing key

Queries for Database:

1. Given company name find out all flight details?
2. Given the flight number find out route (source, destination)?
3. Given a day find out all airports and flight details?
4. Given a route find out all type of fare?
5. Given a source and destination find out flight details?
6. Find out Max fare with flight Detail?
7. Given PNR find out all details?
8. Find out how many ticket book for particular date for Mumbai?
9. Find out how many ticket book for particular date from Delhi to Mumbai?
10. Find out how many ticket book for particular date?
11. Number of flight a particular company?
12. Find Out User detail those have maximum booking?
13. How many seat book of a particular flight?
14. Update user profile?
15. Find out flight detail who going Monday and from Delhi to Mumbai?
16. Find out PNR No which have Booked maximum number of sheets?
17. Find out the total no ticket of a particular journey date?
18. Find out the route-id which have maximum flight?

SQL Query

Q1. Given company name find out all flight details?

Company Name: Indigo

SQL: select flight_no, flight_name from company natural join flight_detail where c_name='Indigo';

Output:

	flight_no character(5)	flight_name character varying(30)
1	10101	6E-187
2	10102	6E-134
3	10103	6E-343
4	10104	6E-278
5	10105	6E-236

Q2. Given the flight number find out route (source, destination)?

Flight No: 10101

SQL: select flight_name, source, destination from (select * from flight_detail natural join all_path where flight_no='10101') as r1 natural join route;

Output:

	flight_name character varying(30)	source character varying(20)	destination character varying(20)
1	6E-187	Delhi	Mumbai
2	6E-187	Delhi	Goa
3	6E-187	Delhi	Jaipur
4	6E-187	Mumbai	Goa
5	6E-187	Mumbai	Jaipur
6	6E-187	Goa	Jaipur

Q3. Given a day find out all airports and flight details?

Day: Monday

SQL: select flight_no, flight_name, depart_time, arrival_time, source, destination from (select * from (select * from flight_detail natural join flight_route) as r1 natural join days where day_name='Monday') as r2 natural join route;

Output:

	flight_no character(5)	flight_name character varying(30)	depart_time time without time zone	arrival_time time without time zone	source character varying(20)	destination character varying(20)
1	10101	6E-187	01:10:00	02:10:00	Delhi	Mumbai
2	10101	6E-187	02:40:00	04:10:00	Mumbai	Goa
3	10101	6E-187	04:10:00	06:20:00	Goa	Jaipur

Q4 Given a route find out all type of fare?.

Route: Ahmedabad to Channai

SQL: select flight_no,fare,passenger_status_name from(select * from fare_detail natural join route)as r1 natural join passenger_status where source='Ahmedabad' and destination='Channai';

Output:

	flight_no character(5)	fare integer	passenger_status_name character varying(15)	class_name character varying(20)
1	10205	2000	Adult	Genral
2	10205	1600	Child	Genral
3	10205	1400	PWD	Genral
4	10205	12000	Adult	Business
5	10205	11000	Child	Business
6	10205	10000	PWD	Business
7	10201	10000	PWD	Business

Q5.Given a source and destination find out flight details?

Route: Delhi to Mumbai

SQL: select flight_no,flight_name,source,destination from (select * from flight_detail natural join all_path)as r1 natural join route where source='Delhi' and destination='Mumbai';

Output:

	flight_no character(5)	flight_name character varying(30)	source character varying(20)	destination character varying(20)
1	10101	6E-187	Delhi	Mumbai

Q6.Find out Max fare with flight Detail?

SQL: select class_id,flight_no,passenger_status_id,route_id,fare from fare_detail where 7

Output:

	class_id integer	flight_no character(5)	passenger_status_id character(3)	route_id character(4)	fare integer
1	1	10205	AAA	I008	15000

Q7. Given PNR find out all details?

--PNR No: AAAAA00001

SQL: select
pnr_no, fname, lname, gender, age, flight_no, flight_name, source, destination, ticket_date, journey_date, fare from (select * from ((select * from ticket natural join passenger where pnr_no='AAAAA00001') as r1 natural join (select * from flight_detail natural join route) as r2)) as r3 natural join fare_detail;

Output:

	pnr_no character(10)	fname character varying(15)	lname character varying(15)	gender character varying(10)	age integer	flight_no character(5)	flight_name character varying(10)	source character varying(10)	destination character varying(10)	ticket_date date	journey_date date	fare integer
1	AAAAA00001	Arti	Bhadoriya	F	20	10101	6E-187	Delhi	Mumbai	2016-02-23	2016-03-12	2000
2	AAAAA00001	Abhishek	khatra	M	20	10101	6E-187	Delhi	Mumbai	2016-02-23	2016-03-12	2000
3	AAAAA00001	Pankaj	Bhadoriya	M	20	10101	6E-187	Delhi	Mumbai	2016-02-23	2016-03-12	2000
4	AAAAA00001	Vishal	Chandel	M	20	10101	6E-187	Delhi	Mumbai	2016-02-23	2016-03-12	2000

Q8. Find out how many ticket book for particular date for Mumbai?

SQL: select count(seat_no) as No_of_Ticket from (select * from passenger natural join ticket) as r1 natural join route where ticket_date='2016-02-23' and destination='Mumbai';

Output:

	no_of_ticket bigint
1	4

Q9. Find out how many ticket book for particular date from Delhi to Mumbai?

SQL: select count(pnr_no) from (select * from passenger natural join ticket where journey_date='2016-03-12') as r1 natural join route where source='Delhi' and destination='Mumbai';

Output:

	count bigint
1	4

Q10. Find out how many ticket book for particular date?

SQL:

```
select count(pnr_no)as No_of_Ticket from passenger natural join ticket where  
ticket_date='2016-02-23';
```

Output:

	no_of_ticket bigint
1	5

Q11. Number of flight a particular company?

```
SQL: c_id,count(select flight_no),c_name from (company natural join  
flight_detail) group by c_id;
```

Output:

	c_id character(3)	count bigint	c_name character varying(20)
1	104	5	Go Air
2	110	5	Air One
3	101	5	Indigo
4	106	5	Air India
5	107	5	AirIndiaExpress
6	103	5	VistraAirlines
7	108	5	Air Costa
8	105	5	Spice Jet
9	109	5	AirPegasus
10	102	5	Jet Airways

Q12. Find Out User detail those have maximum booking?

```
SQL: select * from users natural join (select user_id,count(pnr_no) from ticket  
group by user_id having count(pnr_no) >= all  
(select count(pnr_no) from ticket group by user_id)) as r;
```

Output:

	user_id character(9)	fname character varying(15)	lname character varying(15)	gender character varying(10)	dob date	emailid character varying(30)	contact_no character(10)	state character varying(15)	country character varying(15)	count bigint
1	201452052	Kshitiz	Khinchi	M	1996-01-15	kshikhug@gmail.com	9783458957	Rajasthan	India	2
2	201451051	Sneha	Bist	F	1997-05-21	snehab@gmail.com	9742556287	MP	India	2

Q13. How many seat book of a particular flight?

SQL: select count(pnr_no) from passenger natural join ticket where journey_date='2016-03-12';
Output:

	flight_no character(5)	count bigint
1	10805	2
2	10302	2
3	10404	1
4	10603	1
5	10101	5
6	10205	2

Q14. Update profile

SQL: update users Set
fname='Sakshi',lname='Dubay',emailid='skdubay998@gmail.com',contact_no='9865423432',
where fname='name';

Q15. Find out flight detail who going Monday and from Delhi to Mumbai?

SQL: select
flight_no,flight_name,source,destination,depart_time,arrival_time,day_name
from((select * from flight_detail natural join flight_route)as r1 natural join
(select * from all_path natural join route)as r2) as r3 natural join days where
day_name='Monday' and source='Delhi' and destination='Mumbai';
Output:

	flight_no character(5)	flight_name character varying(30)	source character varying(20)	destination character varying(20)	depart_time time without time zone	arrival_time time without time zone	day_name character varying(13)
1	10101	6E-187	Delhi	Mumbai	01:10:00	02:10:00	Monday

Q16. Find out PNR No which have Booked maximum number of sheets?

SQL: select pnr_no,count(seat_no) as cc from (select * from flight_route join ticket on(flight_route.route_id=ticket.route_id and flight_route.flight_no=ticket.flight_no)) as r natural join passenger group by pnr_no having count(seat_no) >= all (select count(seat_no) from (select * from flight_route join ticket on(flight_route.route_id=ticket.route_id and flight_route.flight_no=ticket.flight_no)) as r natural join passenger group by pnr_no);

Output:

	pnr_no character(10)	cc bigint
1	AAAAA00001	4

Q17. Find out the total no ticket of a particular journey date?

SQL: select count(pnr_no) from passenger natural join ticket where journey_date='2016-03-12';

Output:

	count bigint
1	4

Q18. Find out the route-id which have maximum flight?

SQL: select route_id,count(*) from flight_route natural join all_path group by route_id having count(*) >= all (select count(*) from flight_route natural join all_path group by route_id);

Output:

	route_id character(4)	count bigint
1	A007	1
2	C008	1
3	D006	1
4	C010	1
5	B007	1
6	A001	1
7	G003	1
8	E006	1
9	A006	1
10	B006	1
11	D008	1
12	I002	1
13	I008	1
14	E008	1
15	C001	1

Functional dependencies of different entities or relation:

Company

<u>c_id</u>	c_name	head_quarter	company_url
-------------	--------	--------------	-------------

FD's

$c_id \rightarrow c_name$

$c_id \rightarrow head_quarter$

$c_id \rightarrow company_url$

BCNF

flight_status

<u>flight_status_id</u>	flight_status_name
-------------------------	--------------------

FD's

$flight_status_id \rightarrow flight_status_name$

BCNF

flight_detail

<u>flight_no</u>	flight_name	c_id	flight_status_id
------------------	-------------	------	------------------

FD's

$flight_no \rightarrow flight_name$

$flight_no \rightarrow c_id$

$flight_no \rightarrow flight_status_id$

BCNF

route

<u>route_id</u>	source	destination
-----------------	--------	-------------

FD's

route_id \rightarrow source

route_id \rightarrow destination

BCNF

days

<u>day_id</u>	day_name
---------------	----------

FD's

day_id \rightarrow day_name

BCNF

all_path

flight_no	route_id
-----------	----------

FD's

Not exist

flight_route

<u>flight_no</u>	<u>flight_route_id</u>	route-id	dept_day	depart_time	arrival_time
-------------------------	-------------------------------	----------	----------	-------------	--------------

FD's

{ flight_no, flight_route_id } → route-id

{ flight_no, flight_route_id } → dept_day

{ flight_no, flight_route_id } → depart_time

{ flight_no, flight_route_id } → arrival_time

BCNF

user

<u>user_id</u>	fname	lname	gender	dob	emailid	contact_no	address	country
-----------------------	-------	-------	--------	-----	---------	------------	---------	---------

FD's

user_id → fname

user_id → lname

user_id → gender

user_id → dob

user_id → emailid

user_id → contact_no

user_id → country

BCNF

class

<u>class_id</u>	class_name
-----------------	------------

FD's

class_id \rightarrow class_name

BCNF

ticket

<u>pnr_no</u>	user_id	flight_no	class_id	route_id	booking_date	journey_date
---------------	---------	-----------	----------	----------	--------------	--------------

FD's

pnr_no \rightarrow user_id

pnr_no \rightarrow flight_no

pnr_no \rightarrow class

pnr_no \rightarrow route-id

pnr_no \rightarrow booking_date

pnr_no \rightarrow journey_date

BCNF

passenger_status

<u>passenger status id</u>	passenger_status_name
----------------------------	-----------------------

FD's

passenger_status_id \rightarrow passenger_status_name

BCNF

passenger

<u>pnr_no</u>	<u>seat_no</u>	fname	lname	gender	passenger_status_id
---------------	----------------	-------	-------	--------	---------------------

FD's

{pnr_no, seat_no} → fname

{pnr_no, seat_no} → lname

{pnr_no, seat_no} → gender

{pnr_no, seat_no} → passenger_status_id

BCNF

fare_detail

<u>class_id</u>	<u>flight_id</u>	<u>passenger_status</u>	fare
-----------------	------------------	-------------------------	------

FD's

{ class, flight_id, passenger_status } → fare

BCNF

DDL and Insert Files:

```
DROP SCHEMA airline CASCADE;
```

```
CREATE SCHEMA airline;
```

```
SET search_path TO airline;
```

```
CREATE TABLE company
(
  c_id      CHAR(3) PRIMARY KEY NOT NULL,
  c_name    VARCHAR(20) NOT NULL,
  head_quarter VARCHAR(20),
  company_url VARCHAR(30)
);
```

```
CREATE TABLE flight_status
(
  flight_status_id CHAR(1) PRIMARY KEY NOT NULL,
  flight_status_name VARCHAR(20) NOT NULL
);
```

```
CREATE TABLE flight_detail
(
  flight_no  CHAR(5) PRIMARY KEY NOT NULL,
  flight_name VARCHAR(30) NOT NULL,
  c_id       CHAR(3),
  flight_status_id CHAR(1) REFERENCES flight_status(flight_status_id),
  FOREIGN KEY(c_id) REFERENCES company(c_id)
);
```

```
CREATE TABLE route
(
  route_id  CHAR(4) PRIMARY KEY NOT NULL,
  source    VARCHAR(20) NOT NULL,
  destination VARCHAR(20) NOT NULL,
  distance  INT
);
```

```
CREATE TABLE days
(
  day_id  VARCHAR(4) PRIMARY KEY NOT NULL,
  day_name VARCHAR(13) NOT NULL
);
```

);

CREATE TABLE all_path

```
(
  flight_no CHAR(5) REFERENCES flight_detail(flight_no),
  route_id CHAR(4) REFERENCES route(route_id),
  PRIMARY KEY(flight_no, route_id)
);
```

CREATE TABLE flight_route

```
(
  flight_no CHAR(5) REFERENCES flight_detail(flight_no),
  flight_route_id CHAR(6) NOT NULL,
  depart_time TIME NOT NULL,
  arrival_time TIME NOT NULL,
  day_id VARCHAR(4) NOT NULL REFERENCES days(day_id),
  route_id CHAR(4) NOT NULL REFERENCES route(route_id),
  PRIMARY KEY(flight_route_id, flight_no)
);
```

CREATE TABLE users

```
(
  user_id CHAR(9) PRIMARY KEY NOT NULL,
  fname VARCHAR(15) NOT NULL,
  lname VARCHAR(15),
  gender VARCHAR(10) NOT NULL,
  dob DATE NOT NULL,
  emailid VARCHAR(30),
  contact_no CHAR(10),
  state VARCHAR(15),
  country VARCHAR(15)
);
```

```
create table class (
  class_id int primary key NOT NULL,
  class_name varchar(20)
);
```

CREATE TABLE ticket

```
(
```

```

    pnr_no    CHAR(10) NOT NULL,
    user_id   CHAR(9) NOT NULL,
    flight_no CHAR(5) REFERENCES flight_detail(flight_no),
    class_id   int,
    route_id   CHAR(4) REFERENCES route(route_id),
    ticket_date DATE NOT NULL,
    journey_date DATE NOT NULL,
    PRIMARY KEY(pnr_no)
);

```

```

CREATE TABLE passenger_status
(
    passenger_status_id CHAR(3) PRIMARY KEY NOT NULL,
    passenger_status_name VARCHAR(15)
);

```

```

CREATE TABLE passenger
(
    pnr_no CHAR(10) REFERENCES ticket(pnr_no),
    seat_no INT NOT NULL,
    fname VARCHAR(15) NOT NULL,
    lname VARCHAR(15),
    gender VARCHAR(10),
    age INT,
    passenger_status_id char(3) NOT NULL REFERENCES
passenger_status(passenger_status_id),
    PRIMARY KEY(pnr_no, seat_no)
);

```

```

CREATE TABLE fare_detail
(
    route_id char(4) NOT NULL references route(route_id),
    class_id int references class(class_id),
    passenger_status_id CHAR(3) NOT NULL REFERENCES
passenger_status(passenger_status_id),
    fare INT NOT NULL,
    flight_no CHAR(5) REFERENCES flight_detail(flight_no),
    primary key (class_id,flight_no,passenger_status_id,route_id)
);

```

Tuples:

set search_path to airline;

Company:

```
insert into company values('101','Indigo','Gurgaon','www.indigo.com' );
insert into company values('102','Jet Airways ','Mumbai','www.jetairway.com');
insert into company
values('103','VistraAirlines','Delhi','www.vistraairlines.com');
insert into company values('104','Go Air','Mumbai','www.goair.com');
insert into company values('105','Spice Jet','Gurgaon','www.spicejet.com');
insert into company values('106','Air India','Delhi','www.airindia.ac.in');
insert into company
values('107','AirIndiaExpress','Kochi','www.airindiaexp.com');
insert into company values('108','Air Costa','Vijay Wada','www.aircosta.com');
insert into company
values('109','AirPegasus','Bengalooru','www.airpegasus.com');
insert into company values('110','Air One','New Delhi','www.airone.com');
```

flight_status :

```
insert into flight_status values('A','Domestic');
insert into flight_status values('B','International');
```

```
insert into flight_detail values('10101','6E-187','101','A');
insert into flight_detail values('10102','6E-134','101','A');
insert into flight_detail values('10103','6E-343','101','A');
insert into flight_detail values('10104','6E-278','101','B');
insert into flight_detail values('10105','6E-236','101','B');
```

```
insert into flight_detail values('10201','9W-K-7079','102','A');
insert into flight_detail values('10202','9W-K-7088','102','A');
insert into flight_detail values('10203','9W-K-7083','102','B');
insert into flight_detail values('10204','9W-K-2878','102','B');
insert into flight_detail values('10205','9W-K-2877','102','A');
```

```
insert into flight_detail values('10301','UK877','103','A');
insert into flight_detail values('10302','UK878','103','A');
insert into flight_detail values('10303','UK969','103','B');
insert into flight_detail values('10304','UK968','103','B');
```

insert into flight_detail values('10305','UK992','103','A');

insert into flight_detail values('10401','G8-242','104','B');
insert into flight_detail values('10402','G8-301','104','A');
insert into flight_detail values('10403','G8-246','104','A');
insert into flight_detail values('10404','G8-753','104','B');
insert into flight_detail values('10405','G8-752','104','A');

insert into flight_detail values('10501','SG-853','105','A');
insert into flight_detail values('10502','SG-1031','105','A');
insert into flight_detail values('10503','SG-324','105','B');
insert into flight_detail values('10504','SG-277','105','A');
insert into flight_detail values('10505','SG-916','105','B');

insert into flight_detail values('10601','AI9730','106','A');
insert into flight_detail values('10602','AI9781','106','B');
insert into flight_detail values('10603','AI274','106','A');
insert into flight_detail values('10604','AI9511','106','B');
insert into flight_detail values('10605','AI9704','106','A');

insert into flight_detail values('10701','IX-435','107','A');
insert into flight_detail values('10702','IX-204','107','B');
insert into flight_detail values('10703','IX-605','107','A');
insert into flight_detail values('10704','IX-341','107','A');
insert into flight_detail values('10705','IX-412','107','B');

insert into flight_detail values('10801','LB693','108','A');
insert into flight_detail values('10802','LB633','108','B');
insert into flight_detail values('10803','LB692','108','A');
insert into flight_detail values('10804','LB671','108','A');
insert into flight_detail values('10805','LB697','108','B');

insert into flight_detail values('10901','OP124','109','A');
insert into flight_detail values('10902','OP221','109','B');
insert into flight_detail values('10903','OP123','109','A');
insert into flight_detail values('10904','OP122','109','B');
insert into flight_detail values('10905','OP121','109','A');

insert into flight_detail values('11001','AN655','110','A');
insert into flight_detail values('11002','AN642','110','A');
insert into flight_detail values('11003','AN241','110','B');
insert into flight_detail values('11004','AN231','110','A');
insert into flight_detail values('11005','AN121','110','B');

route:

```
insert into route values('A001','Delhi','Mumbai','1400');
insert into route values('A002','Pune','Delhi','8400');
insert into route values('A003','Kochi','Kolkata','7400');
insert into route values('A004','Chennai','Mumbai','4023');
insert into route values('A005','Agartala','Mumbai','4001');
insert into route values('A006','Goa','Varansi','3001');
insert into route values('A007','Goa','Pune','4001');
insert into route values('A008','Varansi','Pune','4001');
```

```
insert into route values('B001','Ahmedabad','Chandigarh','1200');
insert into route values('B002','Mumbai','Shrinagar','4070');
insert into route values('B003','Shrinagar','Mumbai','4009');
insert into route values('B004','Silchar','Jorhat','4070');
insert into route values('B005','Jorhat','Silchar','4600');
insert into route values('B006','Kochi','Mumbai','4600');
insert into route values('B007','Mumbai','Visakhapatnam','4600');
insert into route values('B008','Kochi','Visakhapatnam','4600');
```

```
insert into route values('C001','Delhi','Goa','4005');
insert into route values('C002','Goa','Delhi','4040');
insert into route values('C003','Varansi','Ahmedabad','3400');
insert into route values('C004','Ahmedabad','Delhi','4600');
insert into route values('C005','Delhi','Jaipur','6600');
insert into route values('C006','Delhi','Dubai','14600');
insert into route values('C007','Delhi','Landon','24600');
insert into route values('C008','Goa','Dubai','19600');
insert into route values('C009','Goa','Landon','4600');
insert into route values('C010','Dubai','Landon','5600');
```

```
insert into route values('D001','Pune','Bengalooru','4300');
insert into route values('D002','Mumbai','Chennai','4500');
insert into route values('D003','Mumbai','Bengalooru','2400');
insert into route values('D004','Portblair','Mumbai','4300');
insert into route values('D005','Mumbai','Portblair','1200');
insert into route values('D006','Mumbai','Goa','1200');
insert into route values('D007','Mumbai','Jaipur','1200');
insert into route values('D008','Goa','Jaipur','1200');
```

```
insert into route values('E001','Kolkata','Chennai','2200');
```

```
insert into route values('E002','Hyderabad','Bengalooru','2200');
insert into route values('E003','Kolkata','Jaipur','2100');
insert into route values('E004','Chennai','Madurai','3230');
insert into route values('E005','Hyderabad','Pakistan ','530');
insert into route values('E006','Jaipur','Tokyo','530');
insert into route values('E007','Jaipur','Bagdad','530');
insert into route values('E008','Tokyo','Bagdad','530');
```

```
insert into route values('F001','Gowahati','Kolkata','400');
insert into route values('F002','Kolkata','Patna','4210');
insert into route values('F003','Colombo','Chennai','2343');
insert into route values('F004','Kochi','Agatti','4560');
```

```
insert into route values('G001','Kochi','Dubai','4050');
insert into route values('G002','Mumbai','Kochi','4300');
insert into route values('G003','Chennai','Thiru','4050');
insert into route values('G004','Kozhikode','Salalah','4700');
insert into route values('G005','Sharjah','Kochi','3400');
```

```
insert into route values('I001','Bengalooru','Hyderabad','5600');
insert into route values('I002','Ahmedabad','Chennai','4050');
insert into route values('I003','Bengalooru','Visakhapatnam','3400');
insert into route values('I004','Coimbatore','Hyderabad','6400');
insert into route values('I005','Jaipur','Bengalooru','4070');
insert into route values('I006','Ahmedabad','Thiru','4050');
insert into route values('I007','Ahmedabad','Mumbai','4050');
insert into route values('I008','Thiru','Mumbai','4050');
```

days:

```
insert into days values('MON','Monday');
insert into days values('TUE','Tuesday');
insert into days values('WED','Wednesday');
insert into days values('THRU','Thursday');
insert into days values('FRI','Friday');
insert into days values('SAT','Saturday');
insert into days values('SUN','Sunday');
```

all_path:

```
insert into all_path values('10101','A001');
```



```
insert into all_path values('10101','C001');
insert into all_path values('10101','C005');
insert into all_path values('10101','D006');
insert into all_path values('10101','D007');
insert into all_path values('10101','D008');
```

```
insert into all_path values('10205','I002');
insert into all_path values('10205','I006');
insert into all_path values('10205','I007');
insert into all_path values('10205','G003');
insert into all_path values('10205','A004');
insert into all_path values('10205','I008');
```

```
insert into all_path values('10404','C001');
insert into all_path values('10404','C006');
insert into all_path values('10404','C007');
insert into all_path values('10404','C008');
insert into all_path values('10404','C009');
insert into all_path values('10404','C010');
```

```
insert into all_path values('10302','A006');
insert into all_path values('10302','A007');
insert into all_path values('10302','A008');
```

```
insert into all_path values('10603','B006');
insert into all_path values('10603','B007');
insert into all_path values('10603','B008');
```

```
insert into all_path values('10805','E006');
insert into all_path values('10805','E007');
insert into all_path values('10805','E008');
```

flight_route:

```
insert into flight_route values('10101','1','01:10','02:10','MON','A001');
insert into flight_route values('10101','2','02:40','04:10','MON','D006');
insert into flight_route values('10101','3','04:10','06:20','MON','D008');
```

```
insert into flight_route values('10205','1','05:10','06:50','TUE','I002');
insert into flight_route values('10205','2','07:10','08:50','TUE','G003');
insert into flight_route values('10205','3','09:10','10:50','TUE','I008');
```

```

insert into flight_route values('10404','1','02:30','04:45','WED','C001');
insert into flight_route values('10404','2','05:30','07:45','WED','C008');
insert into flight_route values('10404','3','08:30','11:45','WED','C010');

insert into flight_route values('10302','1','12:30','14:45','THRU','A006');
insert into flight_route values('10302','2','15:30','18:45','THRU','A007');

insert into flight_route values('10603','1','14:30','16:45','FRI','B006');
insert into flight_route values('10603','2','17:30','18:45','FRI','B007');

insert into flight_route values('10805','1','17:20','18:45','SAT','E006');
insert into flight_route values('10805','2','19:10','21:45','SAT','E008');

```

users:

```

insert into users values('201452074','Akriti','Bhadoriya','F','1997-06-23','akritib@gmail.com','9783456287','Rajasthan','India');
insert into users values('201451080','Abhisek','Katara','M','1996-08-13','abkatara@gmail.com','9783465387','Rajasthan','India');
insert into users values('201452064','Monika','Singh','F','1997-01-12','monikasingh@gmail.com','9783456786','Bihar','India');
insert into users values('201451051','Sneha','Bist','F','1997-05-21','snehab@gmail.com','9742556287','MP','India');
insert into users values('201452052','Kshitiz','Khinchi','M','1996-01-15','kshikhug@gmail.com','9783458957','Rajasthan','India');

insert into users values('201451014','Himanshu','Singal','M','1995-02-28','himanshub@45gmail.com','7783436287','UP','India');
insert into users values('201452003','Gaurav','Dawer','M','1995-06-21','ghitib@gmail.com','8783456287','MP','India');
insert into users values('201451007','Anil','Kumar','M','1995-01-22','anilib@34gmail.com','9782346287','Rajasthan','India');
insert into users values('201451032','Saurabh','Shrivastav','M','1997-03-11','sunkritib@3gmail.com','9783452387','Bihar','India');
insert into users values('201452012','Shrihansh','Meena','M','1995-08-12','shiyttab@12gmail.com','9798756287','Punjab','India');

```

class :

```

insert into class values(1,'Other');
insert into class values(2,'Genral');

```

ticket:

```
insert into ticket values('AAAAA00001','201452074','10101',2,'A001','2016-02-23','2016-03-12');
insert into ticket values('AAAAA00002','201451080','10404',1,'C009','2016-01-02','2016-04-06');
insert into ticket values('AAAAA00003','201452064','10205',2,'G003','2015-12-23','2016-02-12');
insert into ticket values('AAAAA00004','201451051','10302',2,'A006','2016-02-09','2016-03-25');
insert into ticket values('AAAAA00005','201452052','10603',2,'B007','2016-01-29','2016-03-05');

insert into ticket values('AAAAA00006','201451014','10805',1,'E006','2015-11-23','2016-01-12');
insert into ticket values('AAAAA00007','201452003','10101',2,'D007','2016-02-23','2016-03-12');
insert into ticket values('AAAAA00008','201452007','10205',1,'I006','2016-10-12','2016-12-22');
insert into ticket values('AAAAA00009','201451051','10302',2,'A008','2016-06-22','2016-11-25');
insert into ticket values('AAAAA00010','201452052','10805',2,'E008','2016-01-29','2016-06-05');
```

passenger_status:

```
insert into passenger_status values('AAA','Adult');
insert into passenger_status values('BBB','Child');
insert into passenger_status values('CCC','PWD');
```

fare_detail:

```
insert into fare_detail values('I002',2,'AAA',2000,'10205');
insert into fare_detail values('I002',2,'BBB',1600,'10205');
insert into fare_detail values('I002',2,'CCC',1400,'10205');
insert into fare_detail values('I002',1,'AAA',12000,'10205');
insert into fare_detail values('I002',1,'BBB',11000,'10205');
insert into fare_detail values('I002',1,'CCC',10000,'10205');

insert into fare_detail values('G003',2,'AAA',2020,'10205');
```

```
insert into fare_detail values('G003',2,'BBB',1640,'10205');
insert into fare_detail values('G003',2,'CCC',1410,'10205');
insert into fare_detail values('G003',1,'AAA',12400,'10205');
insert into fare_detail values('G003',1,'BBB',11100,'10205');
insert into fare_detail values('G003',1,'CCC',10500,'10205');
```

```
insert into fare_detail values('I008',2,'AAA',2100,'10205');
insert into fare_detail values('I008',2,'BBB',1500,'10205');
insert into fare_detail values('I008',2,'CCC',1100,'10205');
insert into fare_detail values('I008',1,'AAA',15000,'10205');
insert into fare_detail values('I008',1,'BBB',10000,'10205');
insert into fare_detail values('I008',1,'CCC',8000,'10205');
```

```
insert into fare_detail values('A001',2,'AAA',2000,'10101');
insert into fare_detail values('A001',2,'BBB',1600,'10101');
insert into fare_detail values('A001',2,'CCC',1400,'10101');
insert into fare_detail values('A001',1,'AAA',12000,'10101');
insert into fare_detail values('A001',1,'BBB',11000,'10101');
insert into fare_detail values('I002',1,'CCC',10000,'10201');
```

```
insert into fare_detail values('D006',2,'AAA',2000,'10101');
insert into fare_detail values('D006',2,'BBB',1600,'10101');
insert into fare_detail values('D006',2,'CCC',1400,'10101');
insert into fare_detail values('D006',1,'AAA',12000,'10101');
insert into fare_detail values('D006',1,'BBB',11000,'10101');
insert into fare_detail values('D006',1,'CCC',10000,'10101');
```

```
insert into fare_detail values('D008',2,'AAA',2000,'10101');
insert into fare_detail values('D008',2,'BBB',1600,'10101');
insert into fare_detail values('D008',2,'CCC',1400,'10101');
insert into fare_detail values('D008',1,'AAA',12000,'10101');
insert into fare_detail values('D008',1,'BBB',11000,'10101');
insert into fare_detail values('D008',1,'CCC',10000,'10101');
```

```
insert into fare_detail values('C001',2,'AAA',2000,'10404');
insert into fare_detail values('C001',2,'BBB',1600,'10404');
insert into fare_detail values('C001',2,'CCC',1400,'10404');
insert into fare_detail values('C001',1,'AAA',12000,'10404');
insert into fare_detail values('C001',1,'BBB',11000,'10404');
```

insert into fare_detail values('C001',1,'CCC',10000,'10404');

insert into fare_detail values('C008',2,'AAA',2000,'10404');
insert into fare_detail values('C008',2,'BBB',1600,'10404');
insert into fare_detail values('C008',2,'CCC',1400,'10404');
insert into fare_detail values('C008',1,'AAA',12000,'10404');
insert into fare_detail values('C008',1,'BBB',11000,'10404');
insert into fare_detail values('C008',1,'CCC',10000,'10404');

insert into fare_detail values('C010',2,'AAA',2000,'10404');
insert into fare_detail values('C010',2,'BBB',1600,'10404');
insert into fare_detail values('C010',2,'CCC',1400,'10404');
insert into fare_detail values('C010',1,'AAA',12000,'10404');
insert into fare_detail values('C010',1,'BBB',11000,'10404');
insert into fare_detail values('C010',1,'CCC',10000,'10404');

insert into fare_detail values('A006',2,'AAA',2000,'10302');
insert into fare_detail values('A006',2,'BBB',1600,'10302');
insert into fare_detail values('A006',2,'CCC',1400,'10302');
insert into fare_detail values('A006',1,'AAA',12000,'10302');
insert into fare_detail values('A006',1,'BBB',11000,'10302');
insert into fare_detail values('A006',1,'CCC',10000,'10302');

insert into fare_detail values('A007',2,'AAA',2000,'10302');
insert into fare_detail values('A007',2,'BBB',1600,'10302');
insert into fare_detail values('A007',2,'CCC',1400,'10302');
insert into fare_detail values('A007',1,'AAA',12000,'10302');
insert into fare_detail values('A007',1,'BBB',11000,'10302');
insert into fare_detail values('A007',1,'CCC',10000,'10302');

insert into fare_detail values('D006',2,'AAA',2000,'10603');
insert into fare_detail values('D006',2,'BBB',1600,'10603');
insert into fare_detail values('D006',2,'CCC',1400,'10603');
insert into fare_detail values('D006',1,'AAA',12000,'10603');
insert into fare_detail values('D006',1,'BBB',11000,'10603');
insert into fare_detail values('D006',1,'CCC',10000,'10603');

insert into fare_detail values('D007',2,'AAA',2000,'10603');
insert into fare_detail values('D007',2,'BBB',1600,'10603');
insert into fare_detail values('D007',2,'CCC',1400,'10603');
insert into fare_detail values('D007',1,'AAA',12000,'10603');

```
insert into fare_detail values('D007',1,'BBB',11000,'10603');
insert into fare_detail values('D007',1,'CCC',10000,'10603');
```

```
insert into fare_detail values('E006',2,'AAA',2000,'10805');
insert into fare_detail values('E006',2,'BBB',1600,'10805');
insert into fare_detail values('E006',2,'CCC',1400,'10805');
insert into fare_detail values('E006',1,'AAA',12000,'10805');
insert into fare_detail values('E006',1,'BBB',11000,'10805');
insert into fare_detail values('E006',1,'CCC',10000,'10805');
```

```
insert into fare_detail values('E008',2,'AAA',2000,'10805');
insert into fare_detail values('E008',2,'BBB',1600,'10805');
insert into fare_detail values('E008',2,'CCC',1400,'10805');
insert into fare_detail values('E008',1,'AAA',12000,'10805');
insert into fare_detail values('E008',1,'BBB',11000,'10805');
insert into fare_detail values('E008',1,'CCC',10000,'10805');
```

passenger:

```
insert into passenger
values('AAAAA00001','10','Arti','Bhadoriya','F',20,'AAA');
insert into passenger
values('AAAAA00001','11','Abhishek','khatra','M',20,'AAA');
insert into passenger
values('AAAAA00001','12','Pankaj','Bhadoriya','M',20,'AAA');
insert into passenger
values('AAAAA00001','14','Vishal','Chandel','M',20,'AAA');
insert into passenger
values('AAAAA00002','10','Deepak','Goyal','M',20,'AAA');
```

```
insert into passenger values('AAAAA00003','10','Aditi','Singh','F',20,'AAA');
```

```
insert into passenger values('AAAAA00004','10','Ankit','Gupta','M',20,'AAA');
```

```
insert into passenger
values('AAAAA00005','10','Ashish','Verma','M',20,'AAA');
```

```
insert into passenger values('AAAAA00006','10','Chirag','saini','M',20,'AAA');
```

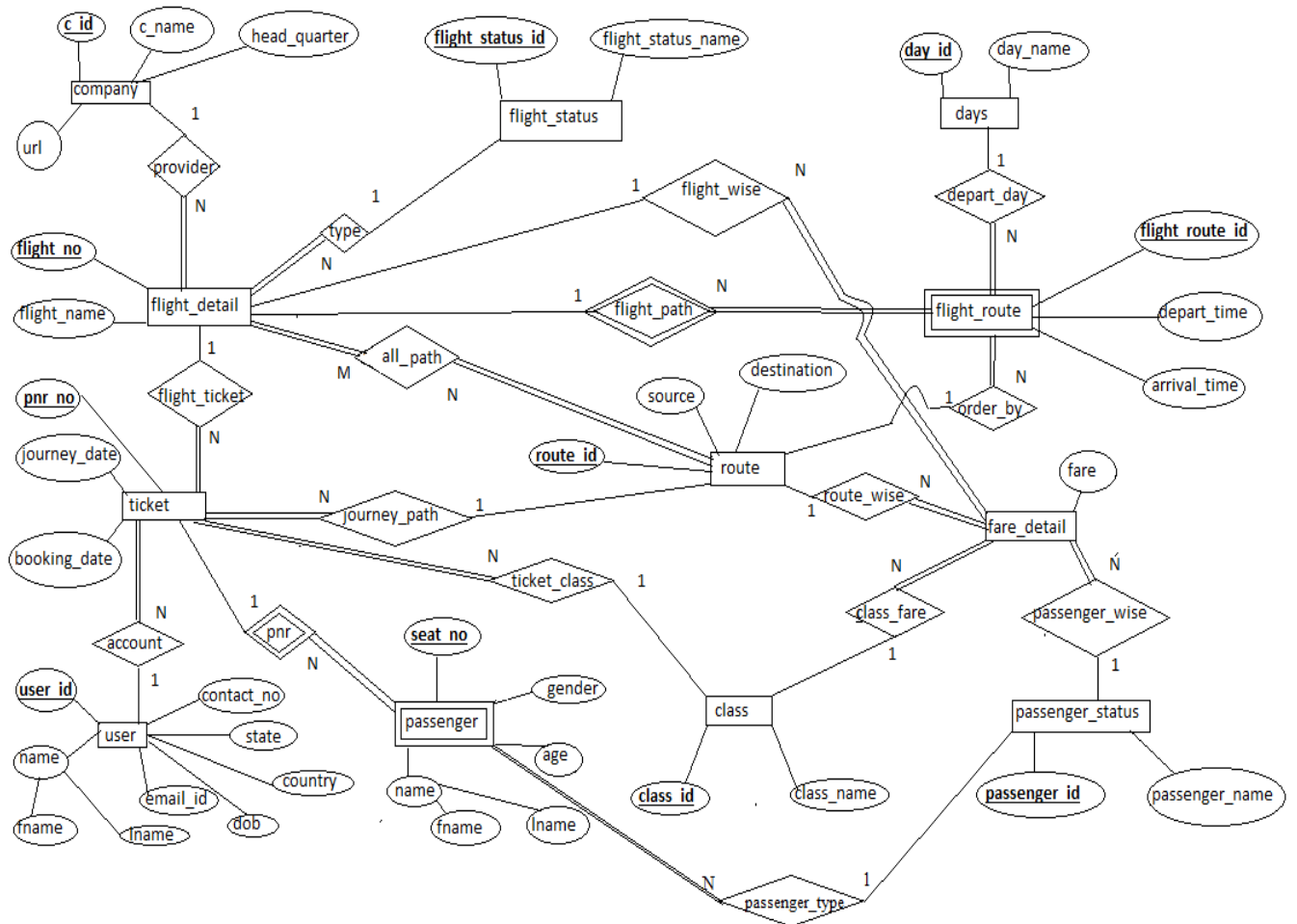
```
insert into passenger
values('AAAAA00007','10','Kouashal','Suman','M',20,'AAA');
```

```
insert into passenger  
values('AAAAA00008','10','Sourbh','Nitinware','M',20,'AAA');
```

```
insert into passenger values('AAAAA00009','10','AJIT','JAIN','M',20,'AAA');
```

```
insert into passenger values('AAAAA00010','10','JITU',  
'Rathore','M',20,'AAA');
```

ER-Diagram : Airline database management



Relation Schema

