

MySQL Assignment

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Create the following tables for FMS(Flight Management System):

The Passenger table contains information about passengers in the flight.

Passenger(passenger_id,passenger_name,passenger_email,passenger_dob)

| Column Name | Data type & Data size | Description |
|-----------------|-----------------------|--|
| passenger_id | Varchar2(15) | passenger id must be unique and not null |
| passenger_name | Varchar2(15) | passenger name should be not null |
| passenger_email | Varchar2(15) | passenger email should be not null |
| Passenger_dob | date | passenger dob should be not null |

```
mysql> use fms ;
Database changed
mysql> create table Passenger( passenger_id varchar(15) NOT NULL UNIQUE , passenger_name varchar(15) NOT NULL ,
-> passenger_email varchar(15) NOT NULL , passenger_dob DATE NOT NULL);
Query OK, 0 rows affected (0.27 sec)

mysql> desc Passenger ;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| passenger_id   | varchar(15)   | NO   | PRI | NULL    |       |
| passenger_name | varchar(15)   | NO   |     | NULL    |       |
| passenger_email| varchar(15)   | NO   |     | NULL    |       |
| passenger_dob  | date          | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.06 sec)

mysql> _
```

Sample Data:

| passenger_id | passenger_name | Passenger_email | Passenger_dob |
|--------------|----------------|------------------|---------------|
| P0001 | Ram | Ram@gmail.com | 01-dec-80 |
| P0002 | Rajan | Rajan@gmail.com | 11-nov-39 |
| P0003 | Smita | Smita@gmail.com | 06-feb-88 |
| P0004 | Bhavan | Bhavan@gmail.com | 18-sep-73 |
| P0005 | Sheela | Sheela@gmail.com | 09-may-76 |
| P0006 | Nethra | Nethra@gmail.com | 08-oct-55 |

```
mysql> select * from passenger ;
+-----+-----+-----+-----+
| passenger_id | passenger_name | passenger_email | passenger_dob |
+-----+-----+-----+-----+
| P0001        | Ram            | Ram@gmail.com   | 1980-12-01    |
| P0002        | Rajan          | Rajan@gmail.com | 2039-11-11    |
| P0003        | Smita          | Smita@gmail.com | 1988-02-06    |
| P0004        | Bhavan         | Bhavn@gmail.com | 1973-09-18    |
| P0005        | Sheela         | Shela@gmail.com | 1976-05-09    |
| P0006        | Nethra         | Netha@gmail.com | 2008-10-08    |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

The Flight table contains information about flight.

Flight(flightid, flightsource, status)

| Column Name | Data type & Data size | Description |
|--------------|-----------------------|--------------------------------------|
| flightid | Varchar2(15) | flightid must be unique and not null |
| flightsource | Varchar2(15) | flightsource should be not null |
| flightdest | Varchar2(15) | flightdest should be not null |
| flightdate | Varchar2(15) | Flightdate should be not null |
| flightseat | Varchar2(15) | Flightseat should be not null |
| ticketcost | Varchar2(15) | Ticketcost should be not null |

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use n
mysql> create table flight( flightid varchar(15) unique not null , flighsource varchar(20) not null ,
-> flightdest varchar(20) not null , flightdate date not null , flightseat varchar(15) not null ,
-> ticketcost varchar(15) not null ) ;
Query OK, 0 rows affected (1.03 sec)

mysql> desc flight;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| flightid | varchar(15) | NO | PRI | NULL | |
| flighsource | varchar(20) | NO | | NULL | |
| flightdest | varchar(20) | NO | | NULL | |
| flightdate | date | NO | | NULL | |
| flightseat | varchar(15) | NO | | NULL | |
| ticketcost | varchar(15) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.11 sec)

mysql>
```

Sample Data:

| | | | | | |
|----------|--------------|------------|------------|------------|------------|
| flightid | flightsource | flightdest | flightdate | flightseat | ticketcost |
|----------|--------------|------------|------------|------------|------------|

| | | | | | |
|-------|-----------|-----------|-----------|-----|------|
| F0001 | Kolkatta | Hyderabad | 01-dec-12 | 100 | 2000 |
| F0002 | Chennai | Hyderabad | 02-dec-12 | 100 | 3000 |
| F0003 | Pune | Kolkatta | 02-dec-12 | 100 | 2500 |
| F0004 | Bangalore | Pune | 18-nov-12 | 100 | 2300 |
| F0005 | Hyderabad | Bangalore | 09-apr-12 | 100 | 2600 |
| F0006 | Pune | Hyderabad | 08-aug-12 | 100 | 3500 |
| F0007 | Pune | Kolkatta | 04-dec-12 | 100 | 2900 |
| F0008 | Kolkatta | Hyderabad | 06-dec-12 | 100 | 3500 |

```
mysql> insert into flight(flightid , flighsource , flightdest , flightdate , flightseat , ticketcost)
-> values('F0008' , 'Kolkata' , 'Hyderabad' , '12-12-06' , '100' , '3500') ;
Query OK, 1 row affected (0.46 sec)

mysql> select * from flight ;
+-----+-----+-----+-----+-----+-----+
| flightid | flighsource | flightdest | flightdate | flightseat | ticketcost |
+-----+-----+-----+-----+-----+-----+
| F0001   | Kolkata    | Hyderabad | 2012-12-01 | 100        | 2000       |
| F0002   | Chennai   | Hyderabad | 2012-12-02 | 100        | 3000       |
| F0003   | Banglore  | Pune      | 2012-12-01 | 100        | 2500       |
| F0004   | Pune      | Kolkata   | 2012-11-18 | 100        | 2300       |
| F0005   | Hyderabad | Banglore  | 2012-04-09 | 100        | 2600       |
| F0006   | Pune      | Kolkata   | 2012-12-04 | 100        | 2900       |
| F0007   | Pune      | Hyderabad | 2012-12-04 | 100        | 2900       |
| F0008   | Kolkata    | Hyderabad | 2012-12-06 | 100        | 3500       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

The Booking table contains booking information of the flight.

Booking (booking_id, flight_id,bookdate)

| Column Name | Data type & Data size | Description |
|-------------|-----------------------|--|
| booking_id | Varchar(15) | booking_id must be unique and not null |
| flight_id | Varchar2(15) | Must be an existing flights |

| | | |
|----------|------------|-----------------------------|
| bookdate | number(15) | bookdate should be not null |
|----------|------------|-----------------------------|

```
mysql> desc booking ;
+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| booking_id | varchar(15) | NO   | PRI | NULL    |       |
| flight_id  | varchar(15) | YES  | MUL | NULL    |       |
| bookdate   | date       | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

Sample Data:

| booking_id | flight_id | bookdate |
|------------|-----------|-----------|
| B0001 | F0001 | 01-dec-12 |
| B0002 | F0004 | 02-dec-12 |
| B0003 | F0005 | 03-dec-12 |
| B0004 | F0003 | 04-dec-12 |
| B0005 | F0001 | 02-dec-12 |
| B0006 | F0004 | 02-dec-12 |
| B0007 | F0003 | 02-dec-16 |

```
mysql> select * from booking ;
+-----+-----+-----+
| booking_id | flight_id | bookdate |
+-----+-----+-----+
| B0001      | F0001     | 2012-12-01 |
| B0002      | F0004     | 2012-12-02 |
| B0003      | F0005     | 2012-12-03 |
| B0004      | F0003     | 2012-12-04 |
| B0005      | F0001     | 2012-12-02 |
| B0006      | F0004     | 2012-12-02 |
| B0007      | F0003     | 2016-12-02 |
+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

The Booking_details table contains booking information of the passenger in the flight.

| Column Name | Data type & Data size | Description |
|---------------|-----------------------|--------------------------------|
| Booking_id | Varchar(15) | Must be an existing booking id |
| passenger _id | Varchar2(15) | Must be an existing passenger |

```
mysql> desc booking_details ;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| booking_id | varchar(15) | YES  | MUL | NULL    |       |
| passenger_id | varchar(15) | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> _
```

Sample Data:

| Booking_id | passenger_id |
|------------|--------------|
| B0001 | P0001 |
| B0001 | P0002 |
| B0001 | P0003 |
| B0002 | P0004 |
| B0002 | P0005 |
| B0003 | P0006 |
| B0003 | P0001 |
| B0004 | P0002 |
| B0005 | P0003 |

```
mysql> select * from booking_details ;
```

| booking_id | passenger_id |
|------------|--------------|
| B0001 | P0001 |
| B0001 | P0002 |
| B0001 | P0003 |
| B0002 | P0004 |
| B0002 | P0005 |
| B0003 | P0006 |
| B0003 | P0001 |
| B0004 | P0002 |
| B0005 | P0003 |

```
9 rows in set (0.00 sec)

mysql> _
```

NOTE:

You are supposed to fill in the given records in Passenger, Flight, Booking and Booking_details tables following these rules:

1. Identify the primary key and foreign key (if applicable) in each table.
2. Take care of the constraints and the relationships among the tables.

QUERIES

Query #1: Display passenger name who has a 'e' as second letter in their name.


```
mysql> select passenger_name from passenger where passenger_name = '%e' ;
Empty set (0.00 sec)
```

Query #2: Display the name of the youngest passenger.

```
mysql> select passenger_name from passenger order by passenger_dob asc ;
+-----+
| passenger_name |
+-----+
| Bhavan         |
| Sheela         |
| Ram            |
| Smita          |
| Nethra         |
| Rajan          |
+-----+
6 rows in set (0.00 sec)
```

Query #3: Display the number of flights leaving Kolkata.

```
mysql> select * from flight where flighsource = 'Kolkata' ;
+-----+-----+-----+-----+-----+-----+
| flightid | flighsource | flightdest | flightdate | flightseat | ticketcost |
+-----+-----+-----+-----+-----+-----+
| F0001    | Kolkata     | Hyderabad | 2012-12-01 | 100        | 2000       |
| F0008    | Kolkata     | Hyderabad | 2012-12-06 | 100        | 3500       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

Query #4: Display the passenger's name having more than 1 booking.

```
mysql> select passenger_name from passenger where passenger_id in (select passenger_id from booking_details group by booking_id having count(booking_id) > 1) ;
+-----+
| passenger_name |
+-----+
| Ram            |
| Bhavan         |
| Nethra         |
+-----+
3 rows in set (0.00 sec)
```

