

DBMS Assignment Lab 7

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PES1UG20CS462

```
mysql> use pes1ug20cs462;  
Database changed  
mysql> _
```

1) Find the list of passengers (user_id, user_type First name and last name) who have travelled from Bengaluru to Chennai during the month of Oct 2021 and Aug 2022.

```
mysql> SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE user_id = passenger_id AND (travel_date >= "2021-10-01" AND travel_date <= "2021-10-31") AND (departure = "Bengaluru" AND arrival = "Chennai") UNION SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE user_id = passenger_id AND (travel_date >= "2022-08-01" AND travel_date <= "2022-08-31") AND (departure = "Bengaluru" AND arrival = "Chennai");  
+-----+-----+-----+-----+  
| user_id | user_type | firstname | lastname |  
+-----+-----+-----+-----+  
| USR_008 | PSGR      | Ajit      | Sethi    |  
| ADM_001 | ADMIN     | Narendra  | Modi     |  
+-----+-----+-----+-----+  
2 rows in set (0.00 sec)
```

2) Find the list of passengers (user_id, user_type First name and last name) who have travelled from Bengaluru to Chennai during the month of Oct 2021 and also during Aug 2022.

```
mysql> SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE user_id = passenger_id AND (travel_date >= "2021-10-01" AND travel_date <= "2021-10-31") AND (departure = "Bengaluru" AND arrival = "Chennai") INTERSECT SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE user_id = passenger_id AND (travel_date >= "2022-08-01" AND travel_date <= "2022-08-31") AND (departure = "Bengaluru" AND arrival = "Chennai");  
Empty set (0.00 sec)
```

3) Find the list of passengers (user_id, user_type First name and last name) who have travelled from Bengaluru to Chennai during the month of Aug 2022 and not in Oct 2021.

```
mysql> SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE (user_id = passenger_id AND (travel_date >= "2022-08-01" AND travel_date <= "2022-08-31") AND (departure = "Bengaluru" AND arrival = "Chennai")) UNION (SELECT user_id, user_type, firstname, lastname FROM train_user, ticket WHERE user_id = passenger_id AND (travel_date NOT BETWEEN "2021-10-01" AND "2021-10-31") AND (departure = "Bengaluru" AND arrival = "Chennai"));
```

user_id	user_type	firstname	lastname
ADM_001	ADMIN	Narendra	Modi

1 row in set (0.01 sec)

4) Find the list of passengers (user_id, user_type, First name and last name) who have travelled from Bengaluru to Chennai and returned to Bengaluru within a week.

```
mysql> SELECT U.user_id, U.user_type, U.firstname, U.lastname FROM train_user AS U, ticket AS T WHERE U.user_id = T.passenger_id AND (T.departure = "Bengaluru" AND T.arrival = "Chennai") AND EXISTS (SELECT U1.user_id, U1.user_type, U1.firstname, U1.lastname FROM train_user AS U1, ticket AS T1 WHERE U1.user_id = T1.passenger_id AND (T1.departure = "Chennai" AND T1.arrival = "Bengaluru") AND (T1.travel_date BETWEEN T.travel_date AND DATE_ADD(T.travel_date, INTERVAL 7 DAY)));
```

user_id	user_type	firstname	lastname
ADM_001	ADMIN	Narendra	Modi

1 row in set (0.01 sec)

5) Find the list of passengers (user_id, user_type, First name and last name) who have travelled from Bengaluru to Chennai and did not return to Bengaluru (in other words, only one way travel from Bengaluru to Chennai).

```
mysql> SELECT U.user_id, U.user_type, U.firstname, U.lastname FROM ticket as T, train_user as U WHERE T.passenger_id = U.user_id AND T.departure = 'Bengaluru' AND T.Arrival = 'Chennai' AND NOT EXISTS (SELECT pnr FROM ticket AS T1 WHERE (T.passenger_id = T1.passenger_id AND T1.arrival = 'Bengaluru' AND T1.departure = 'Chennai'));
```

user_id	user_type	firstname	lastname
USR_008	PSGR	Ajit	Sethi