

DBMS (LAB – 7) UNION, INTERSECTION, MINUS

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

```
C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.24-MariaDB mariadb.org binary distribution

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use cs634_rrs
Database changed
MariaDB [cs634_rrs]> INSERT INTO ticket (PNR, Train_No, Travel_date, Passenger_id,arrival_time, departure_time, Train_Type, compartment_type,compartment_No,arrival, departure) VALUES ('PNR021', 62621, '2021-10-22', 'USR_008', '20:30:00', '16:00:00', 'Superfast', 'I Class', 'F01', 'Chennai',
-> 'Bengaluru' );
Query OK, 1 row affected (0.062 sec)

MariaDB [cs634_rrs]>
MariaDB [cs634_rrs]> update train set source = trim(source), destination =
-> trim(destination);
Query OK, 2 rows affected (0.015 sec)
Rows matched: 6  Changed: 2  Warnings: 0
```

```
MariaDB [cs634_rrs]> SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as t WHERE tu.
user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2021-10-1' and t.travel
_date<='2021-10-31' UNION ALL SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as t
WHERE tu.user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2022-8-1' an
d t.travel_date<='2022-8-31';
+-----+-----+-----+-----+
| user_id | user_type | firstname | lastname |
+-----+-----+-----+-----+
| USR_008 | PSGR      | Ajit      | Sethi    |
| ADM_001 | ADMIN     | Narendra  | Modi     |
+-----+-----+-----+-----+
2 rows in set (0.017 sec)
```

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

```

MariaDB [cs634_rrs]> SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as t WHERE tu.
user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2021-10-1' and t.travel
_date<='2021-10-31' and exists(SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as t
WHERE tu.user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2022-8-1' and
t.travel_date<='2022-8-31');
+-----+-----+-----+-----+
| user_id | user_type | firstname | lastname |
+-----+-----+-----+-----+
| USR_008 | PSGR     | Ajit      | Sethi    |
+-----+-----+-----+-----+
1 row in set (0.001 sec)

```

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

```

MariaDB [cs634_rrs]> SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as t WHERE tu.
user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2022-8-1' and t.travel
_date<='2022-8-31' and not exists(SELECT tu.user_id,tu.user_type,tu.firstname,tu.lastname FROM train_user as tu,ticket as
t WHERE tu.user_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and t.travel_date>='2021-10-1'
and t.travel_date<='2021-1-31');
+-----+-----+-----+-----+
| user_id | user_type | firstname | lastname |
+-----+-----+-----+-----+
| ADM_001 | ADMIN     | Narendra  | Modi     |
+-----+-----+-----+-----+
1 row in set (0.001 sec)

```

4. Find the list of passengers (user_id, user_type, First name andlast name) who have traveled from Bengaluru to Chennai andreturned to Bengaluru within a week.

```

MariaDB [cs634_rrs]> select tu.user_id,p.user_type,tu.firstname,tu.lastname from train_user tu,ticket as t WHERE tu.user
_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and exists(select * from ticket as t_new where
t.passenger_id = t_new.passenger_id and t_new.Departure = 'Chennai' and t_new.Arrival = 'Bengaluru' AND (DATEDIFF(t_new.
travel date,t.travel date) BETWEEN 0 and 7));

```

5. Find the list of passengers (user_id, user_type, First name andlast name) who have traveled from Bengaluru to Chennai and didnot return to Bengaluru (in other words, only one way travelfrom Bengaluru to Chennai).

```

MariaDB [cs634_rrs]> select tu.user_id,tu.user_type,tu.firstname,tu.lastname from train_user tu,ticket as t WHERE tu.use
r_id = t.passenger_id and t.departure='Bengaluru' and t.arrival='Chennai' and not exists(select * from ticket as t_new w
here t_new.passenger_id=t.passenger_id and t_new.departure='Chennai' and t_new.arrival='Bengaluru');
+-----+-----+-----+-----+
| user_id | user_type | firstname | lastname |
+-----+-----+-----+-----+
| USR_008 | PSGR     | Ajit      | Sethi    |
+-----+-----+-----+-----+
1 row in set (0.001 sec)

MariaDB [cs634_rrs]>

```