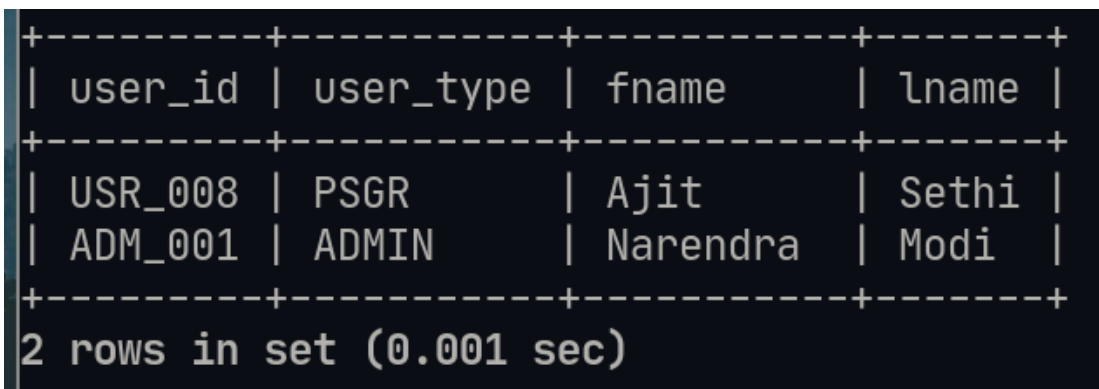# Lab-7 Set Operations:

Details :

- SRN : PES2UG20CS237
- Name : P K Navin Shrinivas
- Section : D

Question 1 :

Command :

```sql
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2021-10-__'))
UNION
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE  ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2022-08-__'));
```

Screenshot :

Question 2 :

Command :

```
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2021-10-__')) AND
EXISTS(
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE  ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2022-08-__')));
```

Screenshot :

```
+--------+-----------+-------+-------+
| user_id | user_type | fname | lname |
+--------+-----------+-------+-------+
| USR_008 | PSGR      | Ajit  | Sethi |
+--------+-----------+-------+-------+
1 row in set (0.001 sec)
```

Question 3 :

Command :

```
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2022-08-__'))
AND NOT EXISTS
(SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")) AND (T.travel_date LIKE '2021-10-__')));
```

Screenshot :

```
Empty set (0.001 sec)
```

Question 4 :

Command :

```sql
SELECT U.user_id, U.user_type, U.fname, U.lname
FROM USER AS U, TICKET AS T
WHERE ((T.user_id=U.user_id AND (T.departure="Bengaluru" AND
T.arrival="Chennai")))
AND EXISTS
(SELECT UA.user_id, UA.user_type, UA.fname, UA.lname
FROM USER AS UA, TICKET AS TA
WHERE ((TA.user_id=UA.user_id AND (TA.departure="Chennai" AND
TA.arrival="Bengaluru"))
AND (TA.travel_date BETWEEN T.travel_date AND
DATE_ADD(T.travel_date, INTERVAL 1 WEEK))));
```

Screenshot :

```
+---------+-----------+-----------+--------+
| user_id | user_type | fname     | lname  |
+---------+-----------+-----------+--------+
| ADM_001 | ADMIN     | Narendra  | Modi   |
+---------+-----------+-----------+--------+
1 row in set (0.001 sec)
```

Question 5 :

```sql
CREATE VIEW view1 AS SELECT U.user_id, U.user_type, U.fname,
U.lname
FROM USER AS U, TICKET AS T
WHERE (T.user_id=U.user_id AND T.departure="Bengaluru" AND
T.arrival="Chennai");

SELECT *
FROM view1
```

```
    WHERE user_id
    NOT IN
    (SELECT UA.user_id
    FROM USER AS UA,TICKET AS TA
    WHERE (TA.user_id=UA.user_id AND TA.departure="Chennai" AND
TA.arrival="Bengaluru"));
```

Screenshot :

```
+---------+-----------+--------+--------+
| user_id | user_type | fname  | lname  |
+---------+-----------+--------+--------+
| USR_008 | PSGR      | Ajit   | Sethi  |
+---------+-----------+--------+--------+
1 row in set (0.001 sec)
```