Experiment 7 **Set Operators and Views**

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CSE A2

AIM – The aim of the experiment is to execute the following queries:

1. Write the query to demonstrate the various set operators (UNION, UNION ALL, MINUS, INTERSECT)

Test Table

Roll_No	Name	Status
12	Nick	Pass
13	Paul	Pass
11	Ricky	Fail
14	Smith	Fail
15	Tim	Pass

Retest table

Roll_No	Name
11	Ricky
15	Smith

2. Write a query using **INTERSECT** set operator to list the student id and residence location of the students.

Student table

Student_id	Student_name	City	Age
1	Raj	Chennai	25
2	Aditya	Vizag	24
3	Ram	Pune	26
4	Sam	Delhi	28

Student personal table

Student_id	Department	College	City	Rank
1	Science	DCE	Chennai	4
2	Arts	ABC	Vizag	1
3	Commerce	KEC	Delhi	2
4	Science	SIT	Pune	3
5	Electronics	KLN	Pune	5

3. Write a query using **UNION & UNION ALL** set operators to list the student id and residence location of the students using the student and student personal table given above.

4. Write a query using **MINUS** set operators to list the student id and residence location of the students using the student and student personal table given above.

5. Employee(Business_Id, login_Id, Organization_Name, Organizational_level, Job_title, Gender, Martial_status, BirthDate); (Minimum 10 records need to be created)

   - Write a query for SQL view (view name: Employee_Records) to fetch columns of the table and filter the results using where clause with the martial_status 'M'.

   - Write a query to update, delete and insert from SQL view (view name: Employee_Records) table.

6. Store_Contacts(Business_Id, Store_Name, Contact type, First_Name, Last_Name);

```
SQL> select * from employee;

BUSINESS_ID   LOGIN_ID ORGAN ORGANISATIONAL_LEVEL JOB_TITLE          G M
----------- ---------- ----- -------------------- -------------------- - -
BIRTHDATE
---------
      101        1 abcd               2 manager           M Y
30-JAN-99

      102        2 abce               3 branch manager      F N
20-JAN-89

      103        3 abde               1 staff             M N
10-JAN-87


BUSINESS_ID   LOGIN_ID ORGAN ORGANISATIONAL_LEVEL JOB_TITLE          G M
----------- ---------- ----- -------------------- -------------------- - -
BIRTHDATE
---------
      104        4 acde               1 staff             F Y
15-JAN-83

      105        5 bcde               2 manager           M Y
25-JAN-73


SQL> select * from employee_records;

BUSINESS_ID   LOGIN_ID ORGAN ORGANISATIONAL_LEVEL JOB_TITLE          G M
----------- ---------- ----- -------------------- -------------------- - -
BIRTHDATE
---------
      101        1 abcd               2 manager           M Y
30-JAN-99

      104        4 acde               1 staff             F Y
15-JAN-83

      105        5 bcde               2 manager           M Y
25-JAN-73


SQL> create or replace view employee_records as select * from employee where job_title='manager';

View created.

SQL> select * from employee_records;

BUSINESS_ID   LOGIN_ID ORGAN ORGANISATIONAL_LEVEL JOB_TITLE          G M
```

```
----------- ---------- ----- -------------------- -------------------- - -
BIRTHDATE
---------
       101         1 abcd               2 manager            M Y
30-JAN-99

       105         5 bcde               2 manager            M Y
25-JAN-73


SQL> update employee_records set organisational_level=5 where job_title='manager';

2 rows updated.

SQL> select * from employee_records;

BUSINESS_ID   LOGIN_ID ORGAN ORGANISATIONAL_LEVEL JOB_TITLE          G M
----------- ---------- ----- -------------------- -------------------- - -
BIRTHDATE
---------
       101         1 abcd               5 manager            M Y
30-JAN-99

       105         5 bcde               5 manager            M Y
25-JAN-73


SQL> drop view employee_records;

View dropped.

SQL> create table store_contacts(biz_id int, store_name varchar(5), contact int, f_name varchar(5),
l_name varchar(5));

Table created.

SQL> create view store as select * from store_contacts;

View created.

SQL> select * from test;

   ROLL_NO NAME   STATUS
---------- ------ ------
        12 Nick   Pass
        13 Paul   Pass
        11 Ricky  Fail
        14 Smith  Fail
        15 Tim    Pass

SQL> select * from retest;
```

```
  ROLL_NO NAME
---------- ------
        11 Ricky
        15 Smith
        16 Sam

SQL> select * from student;

STUDENT_ID STUDEN CITY           AGE
---------- ------ -------- ----------
         1 Raj    Chennai         25
         2 Aditya Vizag           24
         3 Ram    Pune            26
         4 Sam    Delhi           28

SQL> select * from student_personal;

STUDENT_ID DEPARTMENT      COL CITY          RANK
---------- --------------- --- -------- ----------
         1 Science         DCE Chennai          4
         2 Arts            ABC Vizag            1
         3 Commerce        KEC Delhi            2
         4 Science         SIT Pune             3
         5 Electronics     KLN Pune             5

SQL> select name from test union select name from retest;

NAME
------
Nick
Paul
Ricky
Sam
Smith
Tim

6 rows selected.

SQL> select name from test union all select name from retest;

NAME
------
Nick
Paul
Ricky
Smith
Tim
Ricky
Smith
Sam
```

8 rows selected.

SQL> select name from test minus select name from retest;

NAME

Nick
Paul
Tim

SQL> select name from test intersect select name from retest;

NAME

Ricky
Smith

SQL> select student_id,city from student union select student_id,city from student_personal;

STUDENT_ID CITY
---------- --------
1 Chennai
2 Vizag
3 Delhi
3 Pune
4 Delhi
4 Pune
5 Pune

7 rows selected.

SQL> select student_id,city from student union all select student_id,city from student_personal;

STUDENT_ID CITY
---------- --------
1 Chennai
2 Vizag
3 Pune
4 Delhi
1 Chennai
2 Vizag
3 Delhi
4 Pune
5 Pune

9 rows selected.

SQL> select student_id,city from student minus select student_id,city from student_personal;

STUDENT_ID CITY

---------- --------
3 Pune
4 Delhi

SQL> select student_id,city from student intersect select student_id,city from student_personal;

STUDENT_ID CITY
---------- --------
1 Chennai
2 Vizag