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 |

1. 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 |

1. 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.
2. 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.
3. 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.

1. 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

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BIRTHDATE

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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

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BIRTHDATE

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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

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BIRTHDATE

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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

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BIRTHDATE

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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

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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

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12 Nick Pass

13 Paul Pass

11 Ricky Fail

14 Smith Fail

15 Tim Pass

SQL> select \* from retest;

ROLL\_NO NAME

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11 Ricky

15 Smith

16 Sam

SQL> select \* from student;

STUDENT\_ID STUDEN CITY AGE

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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

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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

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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

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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

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3 Pune

4 Delhi

SQL> select student\_id,city from student intersect select student\_id,city from student\_personal;

STUDENT\_ID CITY

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1 Chennai

2 Vizag