Database Management Systems

18CSC303J

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CSE_SWE L2

Exp 3 - Basic SELECT Commands

Aim:
To understand the concept of implementing Basic Select Commands.

1. **DELETE :** It is used to remove one or more row from a table. Syntax: DELETE FROM table_name WHERE condition; Ex : delete from emp where job = 'lecturer';

2. **ORDER BY:** The ORDER BY keyword is used to sort the result-set in ascending or descending order. Ascending Syntax: SELECT * FROM table_name ORDER BY column_name; Ex: SELECT * FROM emp ORDER BY salary; Descending Syntax: SELECT * FROM table_name ORDER BY column_name DESC; Ex: SELECT * FROM emp ORDER BY salary DESC;

3. **DISTINCT:** The SELECT DISTINCT statement is used to return only distinct (different) values. Syntax: SELECT DISTINCT column1, column2 FROM table_name; Ex: SELECT DISTINCT dept FROM emp;

4. **WHERE:** The WHERE clause is used to filter records. Syntax: SELECT column1, column2 FROM table_name WHERE condition; Particular value Ex: SELECT ename,deptno FROM emp WHERE deptno=30; Within range Ex: SELECT * FROM store_info WHERE sales<500 and sales>275;

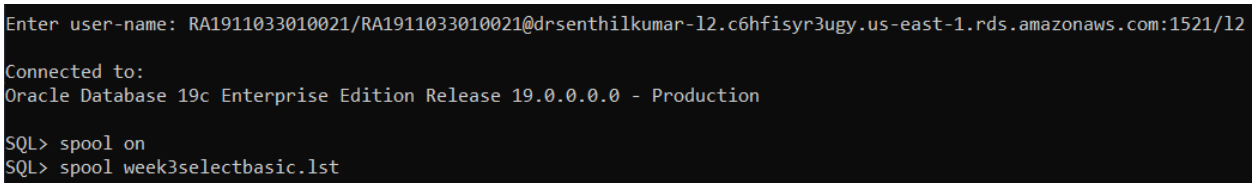
5. **BETWEEN:** The BETWEEN operator selects values within a given range. The values can be numbers, text, or dates. Syntax: SELECT column_name(s) FROM table_name WHERE column_name BETWEEN value1 AND value2; Ex: select * from store_info where tax_date between '10-jan-01' and '10-feb-31';

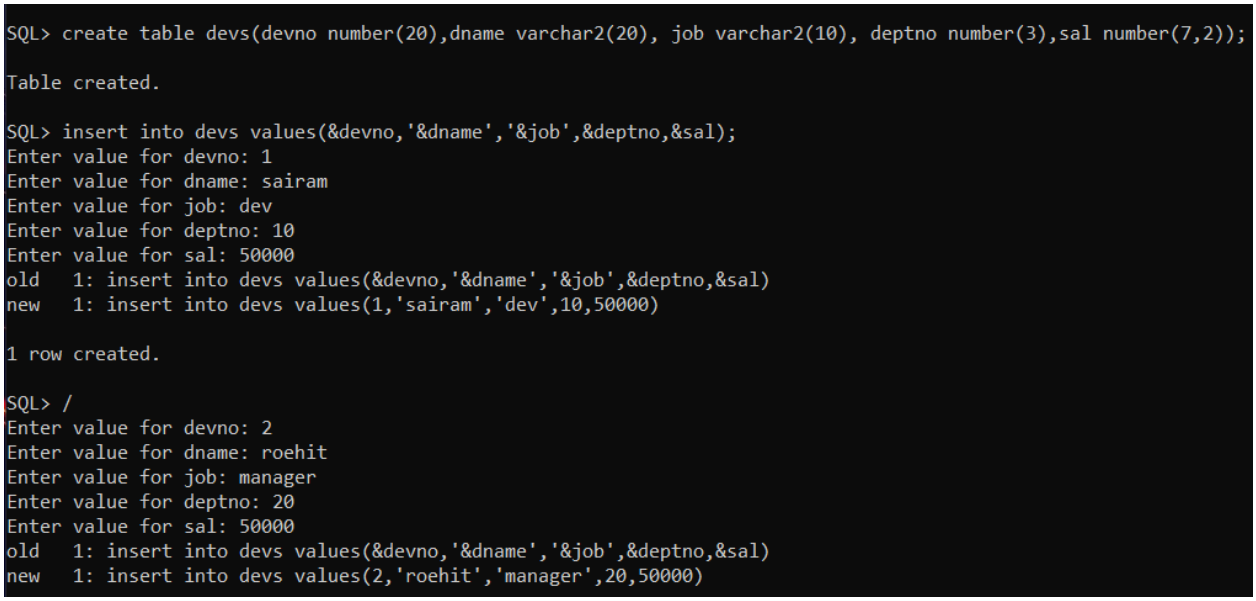
6. **IN:** The IN operator allows you to specify multiple values in a WHERE clause. Syntax: SELECT column_name(s) FROM table_name WHERE column_name IN (value1, value2, ...); Ex: SELECT * FROM store_info WHERE store IN ('los angels', 'san diego');

7. **LIKE:** The LIKE operator is used in a WHERE clause to search for a specified pattern in a column.

- The percent sign (%) represents zero, one, or multiple characters
- The underscore sign (_) represents one, single character Syntax: SELECT column1, column2 FROM table_name WHERE columnN LIKE pattern; Ex: select * from store_info where store like '%an%';

Screenshots:





```
SQL> /
Enter value for devno: 3
Enter value for dname: dushyant
Enter value for job: mentor
Enter value for deptno: 40
Enter value for sal: 50000
old   1: insert into devs values(&devno,'&dname','&job',&deptno,&sal)
new   1: insert into devs values(3,'dushyant','mentor',40,50000)

1 row created.

SQL> /
Enter value for devno: 4
Enter value for dname: abhi
Enter value for job: support
Enter value for deptno: 50
Enter value for sal: 40000
old   1: insert into devs values(&devno,'&dname','&job',&deptno,&sal)
new   1: insert into devs values(4,'abhi','support',50,40000)
```

```
SQL> /
Enter value for devno: 5
Enter value for dname: lavan
Enter value for job: designer
Enter value for deptno: 60
Enter value for sal: 60000
old   1: insert into devs values(&devno,'&dname','&job',&deptno,&sal)
new   1: insert into devs values(5,'lavan','designer',60,60000)

1 row created.

SQL> /
Enter value for devno: 6
Enter value for dname: seshu
Enter value for job: analyst
Enter value for deptno: 70
Enter value for sal: 60000
old   1: insert into devs values(&devno,'&dname','&job',&deptno,&sal)
new   1: insert into devs values(6,'seshu','analyst',70,60000)

1 row created.

SQL> select * from devs;

     DEVNO DNAME                JOB            DEPTNO        SAL
---------- -------------------- ---------- ---------- ----------
         1 sairam               dev                10      50000
         2 roehit               manager            20      50000
         3 dushyant             mentor             40      50000
         4 abhi                 support            50      40000
         5 lavan                designer           60      60000
         6 seshu                analyst            70      60000

6 rows selected.

SQL> desc devs;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEVNO                                              NUMBER(20)
 DNAME                                              VARCHAR2(20)
 JOB                                                VARCHAR2(10)
 DEPTNO                                             NUMBER(3)
 SAL                                                NUMBER(7,2)

SQL> delete from devs where job='designer';

1 row deleted.
```

```
SQL> select * from devs;

     DEVNO DNAME                JOB            DEPTNO        SAL
---------- -------------------- ---------- ---------- ----------
         1 sairam               dev                10      50000
         2 roehit               manager            20      50000
         3 dushyant             mentor             40      50000
         4 abhi                 support            50      40000
         6 seshu                analyst            70      60000

SQL> select sal from devs order by sal;

       SAL
----------
     40000
     50000
     50000
     50000
     60000

SQL> select sal from devs order by sal desc;

       SAL
----------
     60000
     50000
     50000
     50000
     40000

SQL> select deptno from devs where deptno=10;

    DEPTNO
----------
        10

SQL> select dname,deptno from devs where deptno=10;

DNAME                    DEPTNO
-------------------- ----------
sairam                       10
```

```
SQL> select distinct deptno from devs;

    DEPTNO
----------
        50
        40
        70
        10
        20

SQL> create table store_info ( store varchar2(15), sales number(6), tax_date number(9));

Table created.

SQL> insert into store_info values ('&store',&sales,&tax_number);
Enter value for store: khammam
Enter value for sales: 2000
Enter value for tax_number: 14-04-2021
old   1: insert into store_info values ('&store',&sales,&tax_number)
new   1: insert into store_info values ('khammam',2000,14-04-2021)

1 row created.

SQL> /
Enter value for store: hyderabad
Enter value for sales: 8000
Enter value for tax_number: 02-02-2021
old   1: insert into store_info values ('&store',&sales,&tax_number)
new   1: insert into store_info values ('hyderabad',8000,02-02-2021)

1 row created.

SQL> /
Enter value for store: chennai
Enter value for sales: 9000
Enter value for tax_number: 21-08-2021
old   1: insert into store_info values ('&store',&sales,&tax_number)
new   1: insert into store_info values ('chennai',9000,21-08-2021)

1 row created.
```

```
SQL> /
Enter value for store: bilaspur
Enter value for sales: 999
Enter value for tax_number: 29-01-2021
old   1: insert into store_info values ('&store',&sales,&tax_number)
new   1: insert into store_info values ('bilaspur',999,29-01-2021)

1 row created.

SQL> /
Enter value for store: antarvedhi
Enter value for sales: 555
Enter value for tax_number: 02-02-2022
old   1: insert into store_info values ('&store',&sales,&tax_number)
new   1: insert into store_info values ('antarvedhi',555,02-02-2022)

1 row created.

SQL> select 2 from store_info;

         2
----------
         2
         2
         2
         2
         2

SQL> select * from store_info;

STORE                SALES   TAX_DATE
--------------- ---------- ----------
khammam                2000      -2011
hyderabad              8000      -2021
chennai                9000      -2008
bilaspur                999      -1993
antarvedhi              555      -2022
```

```
SQL> create table store_info ( store varchar2(15), sales number(6), tax_date date);

Table created.

SQL> insert into store_info values ( 'los angeles', 1500, TO_DATE('2020-12-5','yyyy-mm-dd'));

1 row created.

SQL> select * from store_info;

STORE                SALES TAX_DATE
--------------- ---------- ---------
los angeles           1500 05-DEC-20

SQL> drop table store_info;

Table dropped.

SQL> create table store_info ( store varchar2(15), sales number(6), tax_date date);

Table created.

SQL> insert into store_info values ( 'khammam', 2000, TO_DATE('2020-04-14','yyyy-mm-dd'));

1 row created.

SQL> select * from store_info;

STORE                SALES TAX_DATE
--------------- ---------- ---------
khammam               2000 14-APR-20

SQL> insert into store_info values ( 'bilaspur', 888, TO_DATE('2010-1-29','yyyy-mm-dd'));

1 row created.

SQL> insert into store_info values ( 'chennai', 5000, TO_DATE('2010-8-21','yyyy-mm-dd'));

1 row created.

SQL> insert into store_info values ( 'hyderabad', 8000, TO_DATE('2018-2-02','yyyy-mm-dd'));

1 row created.
```

```
SQL> select * from store_info;

STORE                SALES TAX_DATE
--------------- ---------- ---------
khammam               2000 14-APR-20
bilaspur               888 29-JAN-10
chennai               5000 21-AUG-10
hyderabad             8000 02-FEB-18

SQL> select * from store_info where sales=4000;

no rows selected

SQL> select * from store_info where sales>1000;

STORE                SALES TAX_DATE
--------------- ---------- ---------
khammam               2000 14-APR-20
chennai               5000 21-AUG-10
hyderabad             8000 02-FEB-18

SQL> select * from store_info where sales<500 and sales>275;

no rows selected

SQL> select * from store_info where sales<1000 and sales>275;

STORE                SALES TAX_DATE
--------------- ---------- ---------
bilaspur               888 29-JAN-10

SQL> select * from store_info where tax_date between '10-jan-01' and '10-jan-31';

STORE                SALES TAX_DATE
--------------- ---------- ---------
khammam               2000 14-APR-20
bilaspur               888 29-JAN-10
chennai               5000 21-AUG-10
hyderabad             8000 02-FEB-18

SQL> select * from store_info where store like '%an%';

no rows selected
```

```
SQL> select * from store_info order by sales desc;

STORE                SALES TAX_DATE
--------------- ---------- ---------
hyderabad             8000 02-FEB-18
chennai               5000 21-AUG-10
khammam               2000 14-APR-20
bilaspur               888 29-JAN-10

SQL> select * from store_info where tax_date between '10-jan-01' and '10-feb-31';

STORE                SALES TAX_DATE
--------------- ---------- ---------
khammam               2000 14-APR-20
bilaspur               888 29-JAN-10
chennai               5000 21-AUG-10
hyderabad             8000 02-FEB-18
```

Result: Thus the Basic select commands have been executed successfully.