Exp-3

SQL DCL & TCL COMMANDS

Date- 2/2/2022

Aim: To write SQL queries to execute DCL and TCL commands.

Queries:-

1.) Create atable named customer

Query-   CREATE TABLE Customer (

        customer_id Number,
        sale_date   date,
        sale_amount number,
        salesperson varchar2(255),
        store_state   varchar2(255),
        order_id   number

    );

Output: Table created

2.) Query to insert customers

Query: INSERT INTO Customer VALUES (1001, '23-May-2020, 1200, 'Rajk', 'KA' 1001);

Query: INSERT INTO Customer VALUES (1001,'23-May-2020', 1200, 'MK','NULL' 1002);

Query: INSERT INTO Customer VALUES (1002, '23-May-2020', 1200, 'Malika Rakol' 'MH', 1003);

Query: INSERT INTO Customer VALUES (1004, '22-May 2020', 170, 'MK','NULL', 1003);

Query - INSERT INTO Customer VALUES (1005, '12-Dec-2019', 4200, 'RK Rakesh', 'MH', 1007);

Query - INSERT INTO Customer VALUES (1002, '21-May-2020', 1200, 'Molly Jambey', 'DL', 1001);

3) GRANT SELECT ON Customer to PUBLIC;

Output - Grant succeeded

4) REVOKE SELECT ON Customer to PUBLIC;

Output - Revoke succeeded

5.) INSERT INTO Customer VALUES (1006, '04-Mar-2020', 3200, 'Molly Jambey', 'DL', 1008);

6) COMMIT;

Output :- Commit complete

7.) DELETE FROM Customer
       WHERE store_state = 'MH'
       AND customer_id = '1002';

8.) Rollback;
    Output - Rollback complete

9) Savepoint sp1;
   Output - Savepoint created

10.) DELETE FROM CUSTOMER
        WHERE store_state = 'MH'
        AND customer_id = '1002';

11.) SAVE POINT sp2;
     Output - Savepoint created

12) ROLL BACK to SP1;

output: Rollback Complete

13.) spool off;

Result:- Thus the SQL queries to execute ~~DDL~~ DCL and
TCL commands were successfully executed and verified.

Output Screenshots

```
D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL*Plus: Release 11.2.0.4.0 Production on Tue Feb 8 13:47:07 2022

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Enter user-name: RA1911003010762/RA1911003010762@d2-saminathan.c6hfisyr3ugy.us-east-1.rds.amazonaws.com:1521/d2

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

SQL> create table customer
  2  (
  3  customer_id number,
  4  sale_date date,
  5  sale_amount number,
  6  salesperson varchar(255),
  7  store_state varchar(255),
  8  order_id number
  9  );

Table created.

SQL> insert into customer values(1001, '23-may-2020', 1200, 'Raj K', 'KA', 1001);

1 row created.

SQL> insert into customer values(1001, '22-may-2020', 1200, 'M K', 'NULL', 1002);

1 row created.

SQL> insert into customer values(1002, '23-may-2020', 1200, 'Malika Rakesh', 'MH', 1003);

1 row created.

SQL> insert into customer values(1003, '22-may-2020', 1500, 'Malika Rakesh', 'MH', 1004);

1 row created.

SQL> insert into customer values(1004, '22-may-2020', 1210, 'M K', 'NULL', 1003);

1 row created.

SQL> insert into customer values(1005, '12-dec-2019', 4200, 'R K Rakesh', 'MH', 1007);

1 row created.

SQL> insert into customer values(1002, '21-may-2020', 1200, 'Molly Samberg', 'DL', 1001);

1 row created.
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL> insert into customer values(1002, '21-may-2020', 1200, 'Molly Samberg', 'DL', 1001);

1 row created.

SQL> select * from customer;

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1001 23-MAY-20        1200
Raj K
KA
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1001 22-MAY-20        1200
M K
NULL
      1002


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1002 23-MAY-20        1200
Malika Rakesh
MH
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
```

```
■ Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
SALESPERSON
-----------------------------------------------------------------------------

STORE_STATE
-----------------------------------------------------------------------------
  ORDER_ID
----------
      1003 22-MAY-20       1500
Malika Rakesh
MH
      1004


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-----------------------------------------------------------------------------

STORE_STATE
-----------------------------------------------------------------------------
  ORDER_ID
----------
      1004 22-MAY-20       1210
M K
NULL
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-----------------------------------------------------------------------------

STORE_STATE
-----------------------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19       4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-----------------------------------------------------------------------------

STORE_STATE
-----------------------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20       1200
Molly Samberg
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19        4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20        1200
Molly Samberg
DL
      1001


7 rows selected.

SQL> grant select on customer to public;

Grant succeeded.

SQL> revoke select on customer from public;

Revoke succeeded.

SQL> insert into customer values(1006, '04-mar-2020', 3200, 'Molly Samberg', 'DL', 1008);

1 row created.

SQL> commit;

Commit complete.
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
Commit complete.

SQL> select * from customer;

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
       1001 23-MAY-20        1200
Raj K
KA
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
       1001 22-MAY-20        1200
M K
NULL
      1002


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
       1002 23-MAY-20        1200
Malika Rakesh
MH
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
```

```
MH
      1004


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
---------------------------------------------------------------
STORE_STATE
---------------------------------------------------------------
  ORDER_ID
----------
      1004 22-MAY-20        1210
M K
NULL
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
---------------------------------------------------------------
STORE_STATE
---------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19        4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
---------------------------------------------------------------
STORE_STATE
---------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20        1200
Molly Samberg
DL
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
---------------------------------------------------------------
```

```
DL
      1008


8 rows selected.

SQL> delete from customer
  2  where store_state = 'MH'
  3  and customer_id = '1002';

1 row deleted.

SQL> select * from customer;

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-------------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------------
  ORDER_ID
----------
      1001 23-MAY-20        1200
Raj K
KA
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-------------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------------
  ORDER_ID
----------
      1001 22-MAY-20        1200
M K
NULL
      1002


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-------------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------------
  ORDER_ID
----------
```

```
SALESPERSON
-------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19        4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20        1200
Molly Samberg
DL
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
-------------------------------------------------------------------------
STORE_STATE
-------------------------------------------------------------------------
  ORDER_ID
----------
      1006 04-MAR-20        3200
Molly Samberg
DL
      1008


7 rows selected.

SQL> rollback;

Rollback complete.
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL> select * from customer;

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------
  ORDER_ID
----------
      1001 23-MAY-20        1200
Raj K
KA
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------
  ORDER_ID
----------
      1001 22-MAY-20        1200
M K
NULL
      1002


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------
  ORDER_ID
----------
      1002 23-MAY-20        1200
Malika Rakesh
MH
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------
```

```
  ORDER_ID
----------
      1004 22-MAY-20          1210
M K
NULL
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19          4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20          1200
Molly Samberg
DL
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1006 04-MAR-20          3200
Molly Samberg
DL
      1008
```

```
 Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1006 04-MAR-20         3200
Molly Samberg
DL
      1008


8 rows selected.

SQL> savepoint sp1;

Savepoint created.

SQL> delete from customer
  2  where store_state = 'MH'
  3  and customer_id = '1002';

1 row deleted.

SQL> savepoint sp2;

Savepoint created.

SQL> rollback to sp1;

Rollback complete.

SQL> select * from customer;

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1001 23-MAY-20         1200
Raj K
KA
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE STATE
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1004 22-MAY-20        1210
M K
NULL
      1003


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1005 12-DEC-19        4200
R K Rakesh
MH
      1007


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1002 21-MAY-20        1200
Molly Samberg
DL
      1001


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
```

```
Select D:\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe


CUSTOMER_ID SALE_DATE SALE_AMOUNT
----------- --------- -----------
SALESPERSON
--------------------------------------------------------------------------------
STORE_STATE
--------------------------------------------------------------------------------
  ORDER_ID
----------
      1006 04-MAR-20        3200
Molly Samberg
DL
      1008


8 rows selected.

SQL> spool off;
not spooling currently
SQL>
```