Ex. No:2
Date:18/7/2019

## Ex. No. 2A – Data Manipulation Language

### Aim:

To demonstrate the usage of Data Manipulation commands.

### Description

Data Manipulation language is used to manipulate the data which is stored in the tables.

### Queries(DML Commands)

1. Create a table deposit with the following specifications

| Column name | Data type |
|---|---|
| actno | Varchar2(5) |
| cname | Varchar(18) |
| bname | Varchar2(18) |
| amount | Number(8,2) |
| adate | Date |

Create a table branch with the following specifications

| Column name | Data type |
|---|---|
| Bname | Varchar2(5) |
| City | Varchar(18) |

Create a table customer with the following specifications

| Column name | Data type |
|---|---|
| Cname | Varchar2(5) |
| City | Varchar(18) |

Create a table borrow with the following specifications

| Column name | Data type |
|---|---|
| Loanno | Varchar2(5) |
| Cname | Varchar(18) |
| Bname | Varchar2(18) |
| Amount | Number(8,2) |

```
SQL> create table deposit_cs076 (actno varchar2(5),cname varchar(18),bname varch
ar2(18),amount number(8,2),adate date);

Table created.

SQL> create table branch_cs076 (bname varchar2(15),city varchar(18));

Table created.

SQL> create table customer_cs076 (cname varchar2(15),city varchar(18));

Table created.

SQL> create table borrow_cs076 (loanno varchar2(5),cname varchar(18),bname varch
ar2(18),amount number(8,2) );

Table created.
```

2. Insert the following data as shown in the tables

Deposit table:

| actno | Cname | Bname | amount | adate | |
|---|---|---|---|---|---|
| 101 | Anil | VRCE | 1000 | 1-MAR-95 | |
| 101 | Sunil | AJNI | 5000 | 4-JAN-96 | |
| 102 | Mehul | Karolbagh | 3500 | 17-NOV-95 | |
| 104 | Madhuri | Chandni | 1200 | 17-DEC-95 | |
| 105 | Pramod | M.G.Road | 3000 | 27-MAR-96 | |

```
SQL> insert into deposit_cs076 values(&actno,'&cname','&bname',&amount,'&date');

Enter value for actno: 101
Enter value for cname: anil
Enter value for bname: vrce
Enter value for amount: 1000
Enter value for date: 1-mar-95
old   1: insert into deposit_cs076 values(&actno,'&cname','&bname',&amount,'&dat
e')
new   1: insert into deposit_cs076 values(101,'anil','vrce',1000,'1-mar-95')

1 row created.
```

Branch Table

| Bname | city |
|---|---|
| VRCE | Nagpur |
| AJNI | Nagpur |
| Karolbagh | Delhi |
| Chandni | Delhi |
| Andheri | Bombay |
| Virar | Bombay |

```
SQL> insert into branch_cs076 values('&bname','&city');
Enter value for bname: vrce
Enter value for city: nagpur
old   1: insert into branch_cs076 values('&bname','&city')
new   1: insert into branch_cs076 values('vrce','nagpur')

1 row created.
```

Customer Table

| Cname | City |
|---|---|
| Anil | Calcutta |
| Sunil | Delhi |
| Mehul | Baroda |
| Mandar | Patna |
| Madhuri | Nagpur |

```
SQL> insert into customer_cs076 values('&cname','&city');
Enter value for cname: anil
Enter value for city: calcutta
old   1: insert into customer_cs076 values('&cname','&city')
new   1: insert into customer_cs076 values('anil','calcutta')

1 row created.
```

Borrow Table

| Loanno | Cname | Bname | Amount |
|---|---|---|---|
| 201 | Anil | VRCE | 1000 |
| 206 | Mehul | Agni | 5000 |
| 311 | Sunil | Dharampeth | 3000 |

3. List all the data from table deposit.

```
SQL> select * from deposit_cs076;

ACTNO CNAME                BNAME                     AMOUNT ADATE
----- -------------------- -------------------- ---------- ---------
101   anil                 vrce                       1000 01-MAR-95
101   sunil                ajni                       5000 04-JAN-96
102   mehul                karolbagh                  3500 17-NOV-95
104   madhuri              chandni                    1200 17-DEC-95
105   pramod               m.g.road                   3000 27-MAR-96
```

4. List all the data from table borrow.

```
SQL> select * from borrow_cs076;

LOANN CNAME                BNAME                     AMOUNT
----- -------------------- -------------------- ----------
201   anil                 vrce                       1000
206   mehul                agni                       5000
311   sunil                dharampeth                 3000
```

5. Give account number and amount of depositors.

```
SQL> select actno,amount from deposit_cs076;

ACTNO      AMOUNT
----- ----------
101          1000
101          5000
102          3500
104          1200
105          3000
```

6. Use select statement to display the names of customers.

```
SQL> select cname from deposit_cs076;

CNAME
------------------
anil
sunil
mehul
madhuri
pramod
```

7. List the names of branches.

```
SQL> select bname from deposit_cs076;

BNAME
------------------
vrce
ajni
karolbagh
chandni
m.g.road
```

8. Display the names of the customer living in city Nagpur.

```
SQL> select cname from customer_cs076 where city='nagpur';

CNAME
---------------
madhuri
```

9. Display the names of customers having amount > 4000.

```
SQL> select cname from deposit_cs076 where amount>4000 ;

CNAME
------------------
sunil
```

10. Display the account date of customer Anil.

```
SQL> select adate from deposit_cs076 where cname='anil';

ADATE
---------
01-MAR-95
```

11. Give the names of all branches located in city Bombay.

```
SQL> select bname from branch_cs076 where city='bombay';

BNAME
---------------
andheri
virar
```

12. Give the names of depositors having account at VRCE.

```
SQL> select cname from borrow_cs076 where bname='vrce';

CNAME
------------------
anil
```

13. Display the names of all branches located in city Delhi.

```
SQL>  select bname from branch_cs076 where city='delhi';

BNAME
---------------
karolbagh
chandni
```

14. Display the names of customers who opened account after 1-12-95.

```
SQL> select cname from  deposit_cs076 where adate> '1-dec-95';

CNAME
--------------------
sunil
madhuri
pramod
```

15. Display the account number and deposit amount of customer having account opened between dates 1-12-95 and 1-6-96.

```
SQL> select actno,amount from deposit_cs076 where adate between '1-dec-95'and '1
-june-96';

ACTNO     AMOUNT
----- ----------
101         5000
104         1200
105         3000
```

16. Give 10% interest to all depositors.

```
SQL> update deposit_cs076 set amount=amount*0.1+amount;

5 rows updated.
```

17. Give 10% interest to all depositors having branch VRCE.

```
SQL> update borrow_cs076 set amount=amount*0.1+amount where bname='vrce';

1 row updated.
```

18. Change the deposit of VRCE branch to 1000 and change the branch as VRCE_AMBAZARI.

```
SQL> update deposit_cs076 set bname='vrce_ambazari',amount=2000 where bname='vrc
e';

1 row updated.
```

19. Delete customers from Bombay city.

```
SQL> delete from customer_cs076 where city='bombay';

0 rows deleted.
```

20. Display the customer details whose name ends with the letter l.

```
SQL> select * from customer_cs076 where cname like '%l';

CNAME           CITY
--------------- ------------------
anil            calcutta
sunil           delhi
mehul           baroda
```

Ex. No. 2B Transaction Control Language(TCL)

AIM:
To demonstrate the usage of Transaction Control Language commands.

DESCRIPTION:
Transaction Control Language(TCL) commands are used to manage transactions in the database. These are used to manage the changes made to the data in a table by DML statements.
Queries:

1. Insert the following tuples into branch table
   <Dharampeth, Nagpur>
   <M.G.Road, Bangalore>

```
SQL> insert into branch_cs076 values('dharampeth','nagpur');

1 row created.

SQL> insert into branch_cs076 values('m.g.road','bangalore');

1 row created.
```

2. Create a savepoint A.

```
SQL> savepoint a;

Savepoint created.
```

3. Insert the following tuples into branch table

```
SQL> insert into branch_cs076 values('andheri','bombay');

1 row created.

SQL> insert into branch_cs076 values('virar','bombay');

1 row created.
```

3. Rollback to already created savepoint A.

```
SQL> rollback to a;

Rollback complete.
```

4. Insert the following tuples into branch table

```
SQL> insert into branch_cs076 values('nehruplace','delhi');

1 row created.

SQL> insert into branch_cs076 values('powai','bombay');

1 row created.
```

5. Commit the transactions.

```
SQL> commit;

Commit complete.
```

7. Perform rollback to A.

```
SQL> rollback to a;
rollback to a
*
ERROR at line 1:
ORA-01086: savepoint 'A' never established in this session or is invalid
```