

Creation and Manipulation of database using SQL script and graphical Interfaces.

Aim:

- to implement the creation and manipulation of database using SQL script and graphical interface
- The data definition, table creation, constraints operation using DDL Commands.
 - The Insert, select, update & delete operations using DML Commands.
 - The Commit, rollback, save point operations using TCL Commands.

DDL Commands

- 1) CREATE 2) ALTER 3) RENAME 4) DROP

1) CREATE

Syn: Create table - name (Column_1 datatype (size), Column_2 datatype (size), ... Column_n datatype (size));

Ex:

```
SQL> create table customer001 (custID int, customer name  
varchar2(15), customer street varchar2(20), customer city varchar  
2(10), primary key (customerID));  
table created
```

```
SQL> desc customer;
```

Name	Type
customerID	Number(5)
customer name	Varchar2(15)
customer street	Varchar2(20)
customer city	Varchar2(10)

2) ALTER TABLE;

Syn:

alter table table-name modify (Column_1 datatype (size));

```
SQL> alter table customer001 add (phoneno int);  
table altered
```

```
SQL> desc customer;
```


Name	TYPE
customer ID	number
customer name	varchar(25)
customer street	varchar(20)
customer city	varchar(10)

RENAME change the table name

Syn:

Rename <table name> to <new table name>;

SQL> rename customer to cust001;
table renamed

SQL> desc cust01

Name	TYPE
customer ID	number(38)
customer name	varchar(25)
customer street	varchar(20)
customer city	varchar(10)

DROP THE TABLE
delete

Syntax:

Drop table: table name;

SQL> drop table cust001;
table dropped.

SQL> desc cust001;

ERROR;

object cust001 does not exist

DML COMMANDS:

→ INSERT TABLE

→ SELECT TABLE

→ UPDATE TABLE

→ DELETE TABLE

INSERT

Syn:

Insert into table_name values (column_1, column_2,
....., column_n);

1) insert into table_name values ('&A1', '&A2', '&A3', ...
..., '&An');

Retrieval of Information by select command:

Syntax:

Select * from table_name;

EX:

SQL> select * from customer;

Syntax:

Select A1, A2, A3, ..., An from table_name where

EX:

SQL> select CustomerID, Customername from customer
where CustomerID = '101';

CustomerID	Customername
101	Arun

SQL> |

Modifying Information by update

Syntax:

update table_name set column_name = 'new-value' where
column_name = 'old-value';

EX:

SQL> update customer set Customername = 'babu' where CustomerID = 101;
1 row updated

Deletion of Information

Syntax:

delete from table_name where condition;

SQL> delete from customer where Customername = 'kumar';
1 row deleted

SQL> select * from customer;

CustomerID	Customername	Customerstreet	Customercity
101	vijay	bharathi street	Chennai
102	dinesh	new street	Vellore
103	ramesh	long street	Vellore

Truncating a table

Deletes the records & not the structure of a table

EX:

SQL> truncate table customer001;

~~table truncated~~
SQL> select * from Customer001;

no rows selected.

SQL> desc customer

name	Type
customer ID	Number(38)
customer name	VARCHAR(15)
customer Street	VARCHAR(20)
customer City	VARCHAR(15)

TCL (Transaction Control Statements)

TCL Statements are used to manage transaction in data base. These are used to manage the changes made by DML statements.

➤ COMMIT COMMAND

➤ ROLLBACK COMMAND

➤ SAVEPOINT COMMAND

EX:

SQL> create table class001 (ID int, NAME Varchar(15));
table created.

SQL> ~~desc class;~~
select * from class

ID	NAME
1	ajith
2	arun
4	monisha

SQL> commit;

Commit Complete.

SQL> save point A;

Save point created

SQL> insert into class values (6, 'chris');

1 row created

SQL> save point B;

Save point B created

SQL> insert into class values(7, 'Bravo');

1 row created.

SQL> save point c;

Save point created.

The resultant table will look like

SQL> select * from class;

ID	NAME
1	Ajith
2	Arun
4	Monisha
5	Viji
6	Chris
7	Bravo

6 rows selected

Now rollback to save point B

SQL> rollback to B;

Rollback complete.

SQL> select * from class;

ID

ID	NAME
1	Ajith
2	Arun
4	Monisha
5	Viji
6	Chris

Now rollback to save point A

SQL> rollback to A;

Rollback complete.

SQL> select * from class;

ID	NAME
1	Ajith
2	Arun
4	Monisha
5	Viji

Result:

Thus to implement the creation and manipulation of database using SQL scripts are graphical interfaces is written and executed successfully.