## TASK-2: Generating design of other traditional database model

①Creating the archial/Network model of the database by enhancing the sound abstract data by performing following tasks forms of inheritance.

②a) Identify the specificity of each relationship, find and form surplus relations.

b) Check is a hierarchy/has a heirarchy and performs generalization and/or specialization relationship.

c) Find the domain of the attribute and perform a check constraint to the applicable.

d) Rename the relations.

e) Perform SQL relations using DDL, DCL commands.

## IMPLEMENTATION OF DDL, DML, DCL and TCL commands of SQL:

Aim:- Implementation of DDL, DML, DCL and TCL commands of SQL with suitable examples.

Objectives:-

① To understand the different issues involved in the design and implementation of a database system.

② To understand and use data definition language to write query for a database.

Theory:- Oracle has many tools such as SQL*Plus, oracle forms, oracle report writer, oracle graphics etc...

DATA DEFINITION LANGUAGES:-

DDL statement are used to define the database structure or schema.

Create:- To make a new database. table, index or stored query. A create statement in SQL creates an object inside of a relational DBMS.

Syntax:- CREATE TABLE table-name
(column-name 1 datatype)[size1], column-name 2 data-type(size1)....
column-name-n data-type [size1];

Alter:- To modify an existing database object. Alter the structure of the database

- To add a column in a table

Syntax:- ALTER TABLE table-name ADD column column-name data-type[size1];

Syntax:-ALTER TABLE table_name DROP column column_name;

Syntax:-ALTER TABLE table_name modify column_name datatype (new_size);

RENAME:-

Syntax:- ALTER TABLE table_name RENAME column old_column_name to new_column_name;

DESCRIBE:-

Syntax:- DESC table_name;

TRUNCATE_TABLE:- Remove all records from a table, including all spaces allocated for the records are removed.

Syntax:- TRUNCATE TABLE table_name;

DATA MANIPULATION LANGUAGES:-

DML allows the users to query and manipulate data in existing schema in object. It allows following data to insert, delete, update and recovery data in schema object.

INSERT:- Values can be inserted into table using insert commands. There are two types of insert commands. They are multiple value (using '&' symbol) & single value (without using '&' symbol).

Syntax:-

INSERT INTO table_name VALUES (value 1, value 2, .....);

(or)

INSERT INTO table_name (column 1, column 2, .....)
VALUES (value 1, value 2, .....);

UPDATE:- This allows the users to update the particular column value using the where clause condition.

Syntax:-

UPDATE <table_name> SET <col 1 = value> WHERE <col = values;

DELETE:- This allows you to delete the particular column values using where clause condition.

Syntax:-

DELETE FROM <table_name> where <conditions;

SELECT:- It is used to query a database and to retrive the information from the database. The SELECT statement can be used in many ways. They are

① Selecting Some columns:- To select specified no of columns from the table the following command is used.

Syntax:-

SELECT column_name From table_name;

② Select using DISTINCT:- The DISTINCT keyword is used to return only different values i.e, this command doesnot select the duplicate values from the table.

Syntax:-

SELECT DISTINCT column name(s) FROM table_name;

③ Select using BETWEEN:- It can be used to get those items that fall within a range

Syntax:-

SELECT column name From table_name WHERE column name BETWEEN value 1 and value 2;

④ RENAMING:- The select statement can be used to rename either a column or the entire table

Syntax:-

Renaming a column;

SELECT column name as new name FROM table_name;

⑤ SORTING:- The select statement with the order by clause is used to sort the contents

Table either in asc or dsc order.

Syntax:-

SELECT column name FROM table_name WHERE condition ORDER by column name ASC/DSC;

⑥ TO SELECT BY MATCHING SOME PATTERNS: The select statement along with like clause 1 is used to match strings. The like Condition is used to specify a search pattern in a column.

SYNTAX:-

SELECT columnname FROM table_name WHERE Column name Like "%" or "_";

% : Matches any substring

_ : Matches a single character.

⑦SELECT using AND, OR, NOT : We can combine one or more conditions in a select statement using the logical operations AND, OR, NOT

Syntax:

SELECT column name FROM table_name WHERE condition 1 LOGICAL OPERATOR condition 2.

DATA CONTROL LANGUAGES:

①CREATE: Create user Adithya identified by Adi;
user created.

②Grant : Grant all privileges to Adithya;
Grant Succeeded

③Revoke : Revoke all privilages from Adithya;
Revoke succeeded.

TRANSACTION CONTROL LANGUAGES:

①Commit :- Commit;
Commit complete

②Save point :- Save point k1;
Save point created.

③Roll back :- roll back to k1;
roll back complete.

```
SQL> create table adithya(name varchar(7),vtu number(8),address varchar(12));

Table created.

SQL> desc adithya
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 NAME                                               VARCHAR2(7)
 VTU                                                NUMBER(8)
 ADDRESS                                            VARCHAR2(12)

SQL> alter table adithya add units varchar(10);

Table altered.

SQL> alter table adithya drop column units;

Table altered.

SQL> alter table adithya modify vtu number(5);

Table altered.

SQL> alter table adithya rename column address to addressss;

Table altered.

SQL> desc adithya
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 NAME                                               VARCHAR2(7)
 VTU                                                NUMBER(5)
 ADDRESSSS                                          VARCHAR2(12)

SQL> insert into adithya values('cool',1228,'lucky');

1 row created.

SQL> insert into adithya values('hot',2812,'kala');

1 row created.

SQL> select*from subject;

no rows selected

SQL> select*from adithya;

NAME            VTU ADDRESSSS
------- ---------- ------------
cool          1228 lucky
hot           2812 kala

SQL> update adithya set name='winter' where name='cool';
```

```
1 row updated.

SQL> insert into adithya values('medium',1122,'kalu');

1 row created.

SQL> select*from adithya;

NAME            VTU ADDRESSSS
------- ---------- -----------
winter        1228 lucky
hot           2812 kala
medium        1122 kalu

SQL> delete from adithya where name='medium';

1 row deleted.

SQL> select*from adithya;

NAME            VTU ADDRESSSS
------- ---------- -----------
winter        1228 lucky
hot           2812 kala

SQL> select distinct name,vtu,addressss from adithya;

NAME            VTU ADDRESSSS
------- ---------- -----------
winter        1228 lucky
hot           2812 kala

SQL> select*from adithya where vtu between 1000 and 2000;

NAME            VTU ADDRESSSS
------- ---------- -----------
winter        1228 lucky

SQL> select vtu as vtu_no from adithya;

    VTU_NO
----------
      1228
      2812

SQL>  select addressss from adithya where name like '_%f';

no rows selected

SQL> select name from adithya where name='winter' and addressss='lucky' and name
like'_f%';

no rows selected
```

```
SQL> create user adithya identified by kunal;

User created.

SQL> commit;

Commit complete.

SQL> savepoint k1;

Savepoint created.

SQL> rollback to k1;

Rollback complete.

SQL>
```

Result :- Thus, Generating design of other traditional database model was executed successfully.

| VEL TECH | |
|---|---|
| X NO. | 2 |
| ERFORMANCE (5) | 5 |
| RESULT AND ANALYSIS (5) | 5 |
| VIVA VOCE (5) | 5 |
| RECORD (5) | 4 |
| TOTAL (20) | 19 |
| SIGN WITH DATE | |

20/8/24