LTCE

Aim :- To perform various constraint

Theory :-

Constraints are used to limit the type of data that can go into table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and data action, the action is aborted.

- SQL NOT NULL constraint

The NOT NULL constraint enforces a column to Not accept null values.

Syntax :

```
create table table_name (
    column1 data-type NOT NULL,
    column2 data-type,
        ⋮
    columnn data_type
);
```

- SQL unique constraint

The unique constraint ensures that all values in a column are diffrent.

Syntax :

```
Create table table-name (
    column1 datatype unique,
    column2 datatype,
        ⋮
    columnn datatype
);
```

- SQL Primary key constraint

The PRIMARY KEY constraint uniquely identifies each record in table. PRIMARY KEY must contain unique values, and cannot contain NULL values.

Syntax :

```
Create table table-name (
    column1 data-type,
    column2 data-type,
        ⋮
    columnn data-type,
    PRIMARY KEY (column1)
);
```

- SQL FOREIGN KEY constraint

A FOREIGN KEY is a field in one table, that refers to the PRIMARY KEY in another table.

Syntax :-

```
Create table table-name1(
    column1 datatype,
    column2 datatype,
        :
    columnn datatye,
    PRIMARY KEY (column1)
);

CREATE table table-name2(
    column11 datatype,
    column21 datatype,
        :
    columnn1 datatype,
    PRIMARY KEY (column11),
    FOREIGN KEY (column21)
     references table-name1(column1)
);
```

- SQL CHECk constraint

The CHECk constraint is used to limit the value range that can be placed in a column. If you define a check constraint on a column it will allow only certain value for this column.

Syntax :

```
CREATE table table_name(
    column1 data-type,
    column2 data-type,
    :
    columnn data-type,
    CHECK ( condition)
);
```

- SQL DEFAULT constraint

The DEFAULT constraint is used to set a default value for a column.

Syntax :

```
CREATE table table_name(
    column1 data-type,
    column2 data-type,
    :
    columnn data-type
        DEFAULT 'String'
);
```

Conclusion :

We Successfully implemented constraints in SQL