

## Task:- 2 Commands In SQL

### DDL:-

DDL (Data Definition Languages) in SQL is used to define and manage the structure of database objects like tables, schemas and indexes. DDL commands deal with how the data is stored not the data itself.

#### Command:-

CREATE, ALTER, DROP, TRUNCATE, RENAME.

#### \*CREATE:-

Creates a new table, database, index, or other objects.

#### \*Example:-

CREATE TABLE STUDENTS (Roll No INT, Name VARCHAR(50));

#### \*ALTER:-

modifies an existing database object, such as adding (or) deleting columns in a table.

#### Example:-

ALTER TABLE students ADD AGE INT;

#### \*DROP:-

Deletes an existing object like a table on database permanently.

#### Example:-

DROP TABLE students.

#### \*TRUNCATE:-

Removes all rows from a table without deleting the table structure.

#### Example:-

TRUNCATE TABLE STUDENTS;

#### \*RENAME:-

changes the name of a database.

#### Example:-

RENAME TABLE STUDENT TO DDILS

### DML:-

DML commands are used to manipulate the data stored in the database. These commands work on the row (records) of a table.

#### Commands In DML:-

#### \*INSERT

#### \*UPDATE

#### \*DELETE

## STUDENTS

rollno	name	AGE
empty		

## STUDENTS

ROLLNO	Name	AGE
101	Rahul	



## \*INSERT

Adds new Rows (records) to or tables.

### Examples:-

INSERT INTO STUDENTS (Roll No, Name)  
VALUES (101, 'Rahul');

## \*UPDATE:-

Modifies Existing data in a table.

### Ex:-

UPDATE outcomes SET Name = 'ROJ' where Roll NO = 101;

## \*DELETE:-

Removes one (or) More rows from a table.

### Ex:-

DELETE From students WHERE Roll No-101;

## 2(c)

### 1. NOT NULL constraint:

Definition:- The NOT NULL constraint ensures that a column cannot contain NULL values. It enforces the rule that every row must have a value in this column.

### Oracle SQL code:-

```
Create TABLE Employee1  
Emp ID Number(5),  
Name VARCHAR2(50)  
NOT NULL  
);
```

Explanation:- The Name column must always have a value. If you try to insert a row without a name, Oracle will throw an error.

### 2) unique constraint:-

#### Definition:-

The unique constraint ensures that all values in a column are different. It allows NULL values, but only one if the column has a single UNIQUE constraint.

### Oracle SQL code:-

```
Create Table Department(  
Dept ID NUMBER(5),  
Dept code VARCHAR2(10)  
UNIQUE);
```

Explanation:- No two departments can have the same Dept code. It helps maintain data uniqueness in columns like email,

## STUDENTS

ROLLNO

Name

AGE

empty

### 3. Primary key Constraint:-

Def:- The primary key constraint uniquely identifies each record in a table. It is a combination of NOT NULL and UNIQUE. A table can have only one primary key.

#### Oracle SQL Code:-

```
create Table student (  
    student ID Number (5)  
    primary key,  
    Name VARCHAR (50)  
);
```

Explanation:- The student ID must be unique and not null. It's the main identifier for each student.

### 4. Foreign key constraint:-

Def:- The Foreign key constraint is used to link two tables. It enforces a relationship between the foreign key column and the primary key in another table.

#### Oracle SQL Code:-

```
create Table course (  
    course ID Number (5)  
    primary key,  
    course Name VARCHAR2 (50)  
);
```

#### Explanation:-

The course ID in Enrollement must exist in the course table. You cannot insert invalid course IDs.

### 5) CHECK constraint:-

The CHECK constraint limits the values that can be inserted into a column. It ensures data follows specific rules.

#### Oracle SQL Code:-

```
create Table Product (  
    Product Id Number (5)  
    Price Number (8, 2) (  
    CHECK (Price > 0)  
);
```

Explanation:- only positive values are allowed for price. Negative (or) zero values will cause an error.

### 6) Default constraint:-

Def:- The default constraint assigns a default value to a column if no value is provided during insertion.



## Student

Student\_ID

Name

empty

Department

DeptID

Dept\_Code

empty

## Oracle SQL Code

```
create table order(  
  order ID NUMBER(5)  
  status VARCHAR(20)  
  Default 'pendins'  
);
```

### Explanation:-

If status is not specified while inserting a row, oracle will automatically insert 'pendins'.

Result:- SQL Query commands executed successfully.

VEL TECH - CSE	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	85
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	NY