

Database Creation and Management

DATA DEFINITION LANGUAGES

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Outline

- Creating a Database
- Table Operations (Create, Alter, Drop)
- Table Operations (Truncate, Comment and Rename)
- DML (Data Manipulation Language)
- SELECT command

Creating a Database

- To create a database, type the following command.
Replace *database_name* with the name of the database that you want to create

- **Syntax:**

```
CREATE DATABASE database_name;
```

- **Example:**

```
CREATE DATABASE Employee;
```

USE a Database

- To work with the any existing database, type the following command. Replace *database_name* with the name of the database you created

- **Syntax:**

```
USE database_name;
```

- **Example:**

```
USE Employee;
```

SHOW DATABASES Statement

- We can check the available databases
- **Syntax:**

SHOW DATABASES;

TRUNCATE command

- Removes all the records from a table. But this command will not destroy the table's structure.

- **Syntax:**

```
TRUNCATE TABLE table_name;
```

- **Example:**

```
TRUNCATE TABLE student;
```

- The above query will delete all the records from the table student.

Drop Command

- DROP command completely removes a table from the database.
- This command will also destroy the table structure and the data stored in it.

- **Syntax:**

```
DROP TABLE table_name;
```

- **Example:**

```
DROP TABLE student;
```

DML (Data Manipulation Language)

- The SQL commands that deal with the manipulation of data present in a database belong to DML.
- Examples of DML:
 - **SELECT** – is used to retrieve data from the database.
 - **INSERT** – is used to insert data into a table.
 - **UPDATE** – is used to update existing data within a table.
 - **DELETE** – is used to delete records from a database table.

SELECT command

- The SELECT command is used to retrieve selected rows from one or more tables and displays on the screen.
- Here, an asterisk (' * ') is used as the meta character, and it indicates all the columns of a given table.
- This statement retrieves all the columns and all the rows of the table.
- *Syntax* : **select * from tablename;**
- Example: Select * from student;

Cont...

ENROLL_NO	NAME	DEPT
7512	parimal	computer
7503	preet	computer

- There are three ways of table data filtering as given below:
 - Selected columns, All Rows
 - Selected Rows, All Columns
 - Selected columns, Selected Rows

SELECT COLUMNS, ALL ROWS

- This Statement retrieves only selected columns as specified with SELECT clause.
- This Statement retrieves all the row of the table.
- *Syntax :*

**select column1, column2, ..., columnN from
tablename;**

- *Example:* Select enroll_no,name from student;

ENROLL_NO	NAME
7512	parimal
7503	preet

SELECT ROWS, ALL COLUMNS

- This Statement retrieves all the columns of the table and retrieves only specific rows that specify the condition given with WHERE clause.
- *Syntax :*

select * from tablename WHERE condition;

- *Example:*

Select * from student where enroll_no=7503;

ENROLL_NO	NAME	DEPT
7503	preet	computer

SELECT ROWS and COLUMNS

- This Statement retrieves only Selected columns as specified with SELECT clause.
- Also, retrieves only specific rows that specify the condition given with WHERE clause.
- Syntax : **select column1, column2, ..., columnN from tablename WHERE condition;**
- Example: Select name from student where dept='computer';

NAME

parimal

preet