MySQL

DATABASE

Create Database : To create a new database.

QUERY : CREATE DATABASE Database_Name;

EX : CREATE DATABASE My_Database;

Select Database : Select one database from MySql server.

QUERY : USE Database_Name;

EX : USE My_Database;

Show Database : Show all the databases available in the Mysql server.

QUERY : SHOW DATABASES;

Drop Database : To Delete a database from Mysql Server.

QUERY : DROP DATABASE Database_Name;

EX : DROP DATABASE My_Database;

TABLES

Data Types :

- Numeric
- Date and Time
- String Type.

Create Table : To Create a new table in Database.

QUERY : CREATE TABLE Table_Name (Colunm_Name Colunm_Type);

EX : CREATE TABLE Employee(Empid int(5),Empname varchar(20),Empsalary int(10));

Show Tables: Show all the tables available in the Databases.

QUERY : SHOW TABLES;

Show Tables Structure: Shows only the table structure.

QUERY : DESC Table_Name;

Rename the Table : To change the name of the table.

QUERY : RENAME TABLE (Current Table_Name) to (New Table_Name);

EX : RENAME TABLE Employee to Employee1;

Drop Table: To Delete a table from Database.

QUERY : DROP TABLE Table_Name;

EX : DROP TABLE Employee;

Truncate Table : To Delete the table values.

QUERY : TRUNCATE TABLE Table_Name;

COLUMNS

Add Columns : To add more columns in the tables.

QUERY : ALTER TABLE Table_Name ADD Colunm_Name Colunm_Type ;

EX : ALTER TABLE Employee_Details ADD Gender char(1);

Change Column Type : To Change the datatype and size of the datatype of the column.

QUERY : ALTER TABLE Table_Name MODIFY Colunm_Name Colunm_Type ;

EX : ALTER TABLE Table_Name MODIFY Gender Varchar(10);

Rename the columns : To change the name of the columns.

QUERY : ALTER TABLE Table_Name RENAME Current Colunm_Name to New Colunm_Name ;

EX : ALTER TABLE Table_Name RENAME Gender to Empgender ;

Drop Columns: To Delete a Column from Table.

QUARRY : ALTER TABLE Table_Name DROP COLUMN Colunm_Name;

EX : ALTER TABLE Employee_Details DROP COLUMN Empgender;

DDL - DATA DEFINITION LANGUAGE

- CREATE
- ALTER
- DROP
- TRUNCATE
- RENAME

DML - DATA MANIPULATION LANGUAGE

- INSERT
- SELECT
- UPDATE
- DELETE

INSERT

Inserting the values : To insert the values into the table.

QUERY : INSERT INTO Table_Name (field 1,field 2,....field N) VALUES (value 1,value 2,....value N);

EX : INSERT INTO Employee VALUES (101,'Sara',2000);

Inserting the null values :

EX : INSERT INTO Employee VALUES (102,NULL,3000);

SELECT

Select the Values : To retrieve the values from the tables.

To Select all the values :

QUERY : SELECT * FROM Table_Name;

EX : SELECT * FROM Employee; - It will show all the values in the table Employee.

To Select Particular values from the table :

QUERY : SELECT Column_Name FROM Table_Name;

EX : SELECT Emp_Id FROM Employee; - It will show all the values in the Column Emp_Id from table Employee.

To Select the value with conditions (WHERE CLAUSE) :

QUERY : SELECT * FROM Table_Name WHERE Condition;

EX : SELECT * FROM Employee WHERE Emp_Salary >= 5000;

To Select the NULL values from the table :

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name is NULL;

EX : SELECT * FROM Employee WHERE Emp_Salary is NULL;

To Select the NOT NULL values from the table :

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name is NOT NULL;

EX : SELECT * FROM Employee WHERE Emp_Salary is NOT NULL;

AND Operator :
Retrieve the data if both conditions are true.

QUERY : SELECT * FROM Table_Name WHERE Condition_1 AND Condition_2;

OR Operator :
Retrieve the data if any one of the conditions is true.

QUERY : SELECT * FROM Table_Name WHERE Condition_1 OR Condition_2;

IN Operator :
Retrieve the data if the values are in the listed values.

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name IN (Value_1,Value_2,....Value_N);

NOT IN Operator :
Retrieve the data if the values are not in the listed values.

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name NOT IN (Value_1,Value_2,....Value_N);

BETWEEN Operator :

Retrieve the data if the values are between the given range.

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name BETWEEN Value_1 AND Value_2;

NOT BETWEEN Operator :
Retrieve the data if the values are not between the given range.

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name NOT BETWEEN Value_1 AND Value_2;

LIKE Operator :
Retrieve the data if the values are like the given pattern.

QUERY : SELECT * FROM Table_Name WHERE Coulmn_Name LIKE 'Pattern';

EX :SELECT * FROM Table_Name WHERE Emp_Name LIKE 'S%';

EX :SELECT * FROM Table_Name WHERE Emp_Name LIKE '_a%';

UPDATE

Update the existing data in the tables.

QUERY : UPDATE Table_Name SET Column_Name = Value WHERE Condition;

EX: UPDATE Employee SET Emp_Salary = 6000 WHERE Emp_Id = 001;

DELETE

Delete the values from the tables.

QUERY : DELETE FROM Table_Name WHERE Condition;

EX: DELETE FROM Employee WHERE Emp_Id = 001;

TCL - Transaction Control Language.

- Commit
- Rollback

Alias in MySQL :

QUERY : SELECT Column_Name as Alias_Name FROM Table_Name;

EX: SELECT Emp_Id as Employee_Id FROM Employee;

CONSTRAINTS

- NOT NULL
- CHECK
- DEFAULT
- PRIMARY KEY
- AUTO_INCREMENT
- UNIQUE

MySQL Functions

- Count( )
- Sum( )
- Avg( )
- Min( )
- Max( )

VIEWS

Create View: To create new views.

QUERY : CREATE VIEW View_Name AS SELECT Colunm_Name FROM Table_Name WHERE Conditions;

EX : CREATE VIEW My_View AS SELECT * FROM employee1 WHERE Dept_ID = 10;

Update View : To updating a views

QUERY : UPDATE View_Name SET Colunm_Name = Value WHERE Conditions;

EX : UPDATE My_View SET Emp_Salary is NULL WHERE Dept_ID = 10;

Delete rows in view :

QUERY : DELETE FROM View_Name WHERE Conditions;

EX : DELETE FROM My_View WHERE Dept_ID = 10;

Drop view :

QUERY : DROP VIEW view_name;

EX : DROP VIEW my_view;

DATABASE DESIGN :

A collection of tasks or processes that enhance the designing , development,implementation and maintenance of enterprise data management systems.