DML commands

Data manipulation language (DML) statements access and manipulate data in existing schema objects. These are used for managing data within schema objects.

SELECT - retrieve data from the database.

INSERT - insert data into a table.

UPDATE - updates existing data within a table.

DELETE - deletes all records from a table, the space for the records remain.

1) SELECT command

Select command retrieves zero or more rows from one or more database tables or database views. It is the most commonly used data manipulation language (DML) command. SELECT queries specify a result set, but do not specify how to calculate it.

SELECT *column_name,column_name* FROM *table_name*;

The SELECT statement has many optional clauses:

- WHERE specifies which rows to retrieve.
- GROUP BY groups rows sharing a property so that an aggregate function can be applied to each group.
- HAVING selects among the groups defined by the GROUP BY clause.
- ORDER BY specifies an order in which to return the rows.
- AS provides an alias which can be used to temporarily rename tables or columns.

Ex:

- Select * from student;
- Select name,roll from student;
- Select max(roll) from student;
- Select avg(marks) from student;
- SELECT DISTINCT City FROM Customers;
- SELECT * FROM Customers WHERE Country='Mexico';
- SELECT * FROM Customers WHERE CustomerID=1;
- SELECT * FROM Customers WHERE Country='Germany' AND City='Berlin';
- SELECT * FROM Customers WHERE City='Berlin' OR City='München';
- SELECT * FROM Customers ORDER BY Country;
- SELECT * FROM Customers ORDER BY Country DESC;
- SELECT * FROM Customers ORDER BY Country, CustomerName;
- SELECT * FROM Customers ORDER BY Country ASC, CustomerName DESC;

2) INSERT command

Insert command is used to insert data into a table. Following is its general syntax,

INSERT into table-name values(data1,data2,..)

INSERT into Student(id,name) values(102,'Alex');

INSERT into Student values(101,'Adam',15);

INSERT into Student values(102,'Alex',null);

INSERT into Student values(103,'Chris')

3) UPDATE command

Update command is used to update a row of a table. Following is its general syntax,

UPDATE table-name set column-name = value where condition;

update Student set age=18 where s_id=102;

UPDATE Student set s_name='Abhi',age=17 where s_id=103;

Be careful when updating records. If we omit the WHERE clause, then all records column will be updated as per the query.

4) DELETE command

Delete command is used to delete data from a table. Delete command can also be used with condition to delete a particular row. Following is its general syntax,

DELETE from table-name;

DELETE from Student;

DELETE from Student where s_id=103;