Order of SQL Query or Structure of SQL or Hierarchy of Clauses or Order of writing SQL Query:

SELECT	: By that we can retrieve the data (i.e., what we want to specify)
DISTINCT	: By using this we can get (retrieve) the unique record.
FROM	: Here we can specify the table name.
WHERE	: Here we filter the general data by specifying the conditions.
GROUP BY	: Here we club the similar kind of data based on column.
HAVING	: Here we filter the aggregate data by specifying the condition.
ORDER BY	: Here we sort the result set in ascending or descending order, by default ascending

How it works or how it compiles or how it will execute or in what order it execute.

- **From :** Where data (table) is present.
- **Where :** It checks the condition if any.
- **Group By :** It groups the data or the field.
- **Having :** Checks the condition from the query.
- **Select & Distinct:** It selects the data to display.
- **Order By :** It orders the results in set.

Note: Here **SELECT** and **FROM** clause are mandatory and other are optional.

Select: Syntax

SELECT COLUMN_NAME1, COLUMN_NAME2… FROM <TABLE_NAME>;

Example:

SELECT EMPNO, ENAME, JOB FROM SCOTT.EMP;

Distinct: Syntax

SELECT DISTINCT <COLUMN_NAME> FROM <TABLE_NAME>;

Example: DISTINCT DEPTNO FROM SCOTT.EMP;

From: Syntax

SELECT * FROM SCOTT.EMP;

Where: Syntax

Display the records of employees those are belongs to ‘deptno 30’

SELECT * FROM SCOTT.EMP WHERE DEPTNO=30;

Display the name of the employees those who are getting salary > 2000

SELECT NAME FROM SCOTT.EMP WHERE SAL>2000;

Display the employees name and salary those designation as clerk

SELECT ENAME, SAL FROM SCOTT.EMP WHERE JOB='CLERK';

Relational Operations;

("=", " >", "<", "!=", "< >", "=>", "<=")

Logical operations: (AND, OR)

Display the records of emp those are belong to dept no 30 and salary > 2000

SELECT * FROM SCOTT.EMP WHERE DEPTNO = 30 AND SAL > 2000;

Display the records of the employee those are belong to dept no 30 or salary > 2000

SELECT * FROM SCOTT.EMP WHERE DEPTNO=30 OR SAL>2000;