

SQL Queries

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Subject :DBMS

Code:2104

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SQL Commands

The standard SQL commands to interact with relational databases are **CREATE, SELECT, INSERT, UPDATE, DELETE and DROP**. These commands can be classified into the following groups based on their nature:

DDL - Data Definition Language:

Command Description:

CREATE : Creates a new table, a view of a table, or other object in the database.

ALTER : Modifies an existing database object, such as a table.

DROP : Deletes an entire table, a view of a table or other objects in the database.

DML - Data Manipulation Language:

Command Description:

SELECT : Retrieves certain records from one or more tables.

INSERT : Creates a record.

UPDATE : Modifies records.

DELETE : Deletes records.

DCL - Data Control Language:

Command Description:

GRANT

REVOKE

Description

Gives a privilege to user.

Takes back privileges granted from user.

Various Syntax in SQL :

SQL SELECT Statement:

```
SELECT column1, column2....columnN
```

```
FROM table_name;
```

SQL DISTINCT Clause:

```
SELECT DISTINCT column1, column2....columnN
```

```
FROM table_name;
```

SQL WHERE Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE CONDITION;
```

SQL AND/OR Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE CONDITION-1 {AND|OR} CONDITION-2;
```

SQL IN Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE column_name IN (val-1, val-2,...val-N);
```

SQL BETWEEN Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE column_name BETWEEN val-1 AND val-2;
```

SQL LIKE Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE column_name LIKE { PATTERN };
```

SQL ORDER BY Clause:

```
SELECT column1, column2....columnN  
FROM table_name  
WHERE CONDITION  
ORDER BY column_name {ASC|DESC};
```

SQL GROUP BY Clause:

```
SELECT SUM(column_name)  
FROM table_name  
WHERE CONDITION  
GROUP BY column_name;
```

SQL COUNT Clause:

```
SELECT COUNT(column_name)
FROM table_name
WHERE CONDITION;
```

SQL HAVING Clause:

```
SELECT SUM(column_name)
FROM table_name
WHERE CONDITION
GROUP BY column_name
HAVING (arithmetic function condition);
```

SQL CREATE TABLE Statement :

```
CREATE TABLE table_name(
column1 datatype,
column2 datatype,
column3 datatype,
.....
columnN datatype,
PRIMARY KEY( one or more columns )
);
```

SQL DROP TABLE Statement :

```
DROP TABLE table_name;
```

SQL ALTER TABLE Statement :

```
ALTER TABLE table_name {ADD|DROP|MODIFY} column_name {data_ype};
```

SQL ALTER TABLE Statement (Rename):

```
ALTER TABLE table_name RENAME TO new_table_name;
```

SQL INSERT INTO Statement:

```
INSERT INTO table_name( column1, column2....columnN)
VALUES ( value1, value2....valueN);
```

SQL UPDATE Statement:

```
UPDATE table_name
SET column1 = value1, column2 = value2....columnN=valueN
[ WHERE
```

CONDITION];

SQL DELETE Statement:

```
DELETE FROM table_name  
WHERE  
{CONDITION};
```

SQL CREATE DATABASE Statement:

```
CREATE DATABASE database_name;
```

SQL DROP DATABASE Statement:

```
DROP DATABASE database_name;
```

SQL USE Statement:

```
USE database_name;
```

SQL COMMIT Statement:

```
COMMIT;
```

SQL ROLLBACK Statement:

```
ROLLBACK;
```

Aggregate Functions in SQL:

SQL provides grouping and aggregate operations :

SUM : sums the values in the collection
AVG : computes average of values in the collection
COUNT : counts number of elements in the collection
MIN : returns minimum value in the collection
MAX : returns maximum value in the collection