SQL Cheat Sheet - Fetching Data from Table

Query 1 : Fetch the records from Column1,Column2 from Employee Table.

```
SELECT Column1,Column2 FROM Employee;
```

Query 2 : Fetch all the records from Employee table.

```
SELECT * FROM Employee;
```

Query 3 : What is Query data and filter rows with a condition

```
SELECT Column1,Column2 FROM Employee
WHERE condition;
```

Query 4 : What is Query distinct rows from a table

```
SELECT DISTINCT Column1 FROM Employee
WHERE condition;
```

Query 5 : How to Sort the result set in ascending or descending order

```
SELECT Column1,Column2 FROM Employee
ORDER BY Column1 ASC [DESC];
```

Query 6 : How to return N rows from Employee table.

```
SELECT Column1,Column2 FROM Employee
ORDER BY Column1
LIMIT n OFFSET offset;
```

Query 7 : How to Group rows using an aggregate function?

```
SELECT Column1, aggregate(Column2)
FROM Employee
GROUP BY Column1;
```

Query 8 : How do you filter groups using Having Clause.

```
SELECT Column1, aggregate(Column2)
FROM Employee
GROUP BY Column1
HAVING condition;
```

SQL Cheat Sheet - Working with Multiple tables

Query 1 : How to Join 2 tables using Inner join table - t1 and table t2

```
SELECT Column1, Column2  FROM t1 INNER JOIN t2 ON condition;
```

Query 2 : How to Join 2 tables using left join - table-t1 and table t2.

```
SELECT Column1, Column2
FROM t1
LEFT JOIN t2 ON condition;
```

Query 3 : How to Join 2 tables using right join - table-t1 and table t2.

```
SELECT Column1, Column2
FROM t1
RIGHT JOIN t2 ON condition;
```

Query 4 : How to Perform full outer join with using t1 and t2 table.

```
SELECT Column1, Column2
FROM t1
FULL OUTER JOIN t2 ON condition;
```

Query 5 : How to produce Cartesian product of 2 tables?

```
SELECT Column1, Column2
FROM t1
CROSS JOIN t2;
```

Way 2 for cartesian or cross join :

```
SELECT Column1, Column2
FROM t1, t2;
```

Query 6 :How to do Self Join of the table t1

```
SELECT Column1, Column2
FROM t1 A
INNER JOIN t1 B ON condition;
```

SQL Cheat sheet - SQL Operators

Query 1 : How to Combine two rows from table t1 and table t2.

```
SELECT Column1,Column2 FROM t1
UNION [ALL]
SELECT Column1,Column2 FROM t2;
```

Query 2 : How to intersect the data from table t1 and table t2.

```
SELECT Column1,Column2 FROM t1
INTERSECT
SELECT Column1,Column2 FROM t2;
```

Query 3 : How to Subtract a result set of table t1 from another result set of table t2.

```
SELECT Column1,Column2 FROM t1
MINUS
SELECT Column1,Column2 FROM t2;
```

Query 4 : How to Query rows using pattern matching %, _

```
SELECT Column1,Column2 FROM t1
WHERE Column1 [NOT] LIKE pattern;
```

Query 5: How to fetch records from Value list?

```
SELECT Column1,Column2 FROM t
WHERE Column1 [NOT] IN value_list;
```

Query 6 : How to fetch all columns between two ranges?

```
SELECT Column1,Column2 FROM t
WHERE  Column1 BETWEEN Low_range_value AND high_range_value;
```

Query 7: How to Check if values in a table is NULL or not?

```
SELECT Column1,Column2 FROM t
WHERE  Column1 IS [NOT] NULL;
```

SQL Cheat Sheet- Create Table and Manage tables

Query 1 : Create a new table t1 with three columns and having primary key.

```
CREATE TABLE t (
    id INT PRIMARY KEY,
    name VARCHAR NOT NULL,
    price INT DEFAULT 0
);
```

Query 2 : How to delete the table from the database?

```
DROP TABLE t ;
```

Query 3 : How to add a new column to the table t1?

```
ALTER TABLE t ADD column;
```

Query 4 : How to Drop column column1 from the table?

```
ALTER TABLE t DROP COLUMN column1 ;
```

Query 5 : How to Add a constraint to the table?

```
ALTER TABLE t ADD constraint;
```

Query 6 : How to Drop a constraint from table t1?

```
ALTER TABLE t DROP constraint;
```

Query 7 : How to rename a table from t1 to t2?

```
ALTER TABLE t1 RENAME TO t2;
```

Query 8 :How to rename column c1 to c2?

```
ALTER TABLE t1 RENAME c1 TO c2 ;
```

Query 9 : How to remove data from table t1?

```
TRUNCATE TABLE t;
```

SQL Cheat Sheet - With SQL Constraints

Query 1 : How to set two primary keys (Composite key) for one table t1 ?

```
CREATE TABLE t1(
    column1 INT, column2 INT, column3 VARCHAR,
    PRIMARY KEY (column1,column2)
);
```

Query 2 : How to Set Foreign Key to table t1?

```
CREATE TABLE t1(
    column1 INT PRIMARY KEY,
    column2 INT,
    FOREIGN KEY (column2 ) REFERENCES t2(column2 )
);
```

Query 3 :How to set unique columns for table t1?

```
CREATE TABLE t1(
    column1 INT, column2 INT,column3 INT
    UNIQUE(column2 ,column3 )
);
```

Query 4 : How to add Check constraint which ensure column1 > 0 and values in column1 >= column2?

```
CREATE TABLE t1(
  column1 INT, column2 INT,
  CHECK(column1 > 0 AND column1 >= column2)
);
```

Query 5 : How to set Not Null Constraint for table t1?

```
CREATE TABLE t1(
    column1 INT PRIMARY KEY,
    column2 VARCHAR NOT NULL
);
```

SQL Cheat sheet - Modifying the Data

Query 1 : How to insert one row into a table t1?

```
INSERT INTO t(column_list)
VALUES(value_list);
commit;
```

Query 2 : How to Insert multiple rows in table t1?

```
INSERT INTO t1(column_list)
VALUES (value_list),
       (value_list), …;
```

Query 3 : How to Insert rows from One table (t2) to other table t1?

```
INSERT INTO t1(column_list)
SELECT column_list
FROM t2;
```

Query 4 : How to Update new value in the column column1 for all rows?

```
UPDATE t1
SET column1 = new_value;
```

Query 5 : How to Update values in the column column1, column2 that match the condition?

```
UPDATE t
SET column1 = new_value,
        column2 = new_value
WHERE condition;
```

Query 6 : How to Delete all data from the table?

```
DELETE FROM t1;
```

Query 7 : How to Delete subset of rows in a table?

```
DELETE FROM t1
WHERE condition;
```

SQL Cheat Sheet - Managing views

Query 1 : How to Create a new view that consists of column1 and column2?

```
CREATE VIEW v(column1,column2)
AS
SELECT column1, column2
FROM t1;
```

Query 2 : How to Create a new view with check constraint?

```
CREATE VIEW v(column1,column2)
AS
SELECT column1, column2
FROM t;
WITH [CASCADED | LOCAL] CHECK OPTION;
```

Query 3 : How to Create a recursive view with multiple tables?

```
CREATE RECURSIVE VIEW v
AS
select-statement -- anchor part
UNION [ALL]
select-statement; -- recursive part
```

Query 4 :How to create temporary view

```
CREATE TEMPORARY VIEW v
AS
SELECT column1, column2
FROM t1;
```

Query 5 : How to Delete a view

```
DROP VIEW view_name;
```

SQL Cheat Sheet - Managing Indexes

Query 1 : How to Create an index on `column1` and `column2` of the t table?

```
CREATE INDEX index_name
ON t1(column1,column2);
```

Query 2 : How to Create an unique index on column3, column4 of the t table

```
CREATE UNIQUE INDEX index_name
ON t(c3,c4);
```

Query 3 : How to Drop Index?

```
DROP INDEX index_name ;
```

SQL Cheat Sheet - Managing triggers

Query 1 : How to create or Modify the Triggers?

```
CREATE OR MODIFY TRIGGER trigger_name
WHEN EVENT
ON table_name TRIGGER_TYPE
EXECUTE stored_procedure;
```

WHEN

- **BEFORE** – invoke before the event occurs
- **AFTER** – invoke after the event occurs

EVENT

- **INSERT** – invoke for INSERT
- **UPDATE** – invoke for UPDATE
- **DELETE** – invoke for DELETE

TRIGGER_TYPE

- FOR EACH ROW
- FOR EACH STATEMENT

Query 2: How to Delete a specific trigger?

```
DROP TRIGGER trigger_name;
```