SQL COMMANDS
CHEAT SHEET

SQL Commands

The commands in **SQL** are called Queries and they are of two types:

- **Data Definition Query:** The statements which defines the structure of a database, create tables, specify their keys, indexes and soon

- **Data manipulation queries:** : These are the queries which can be edited.

  E.g: Select, update and insert operation

Command	Syntax	Description
ALTER table	ALTER TABLE table_name ADD column_name datatype;	It is used to add columns to a table in a database
AND	SELECT column_name(s) FROM table_name WHERE column_1 = value_1 AND column_2 = value_2;	It is an operator that is used to combine two conditions
AS	SELECT column_name AS 'Alias' FROM table_name;	It is an keyword in SQL that is used to rename a column or table using an alias name

Command	Syntax	Description
BETWEEN	SELECT column_name(s) FROM table_name WHERE column_name BETWEEN value_1 AND value_2;	It is an operator used to filter the result within a certain range
CASE	SELECT column_name, CASE WHEN condition THEN 'Result_1' WHEN condition THEN 'Result_2' ELSE 'Result_3' END FROM table_name;	It is a statement used to create different outputs inside a SELECT statement
COUNT	SELECT COUNT (column_name) FROM table_name;	It is a function that takes the name of a column as argument and counts the number of rows when the column is not NULL
CREATE TABLE	CREATE TABLE table_name (column_1 datatype, column_2 datatype, column_3 datatype);	It is used to create a new table in a database and specify the name of the table and columns inside it
GROUP BY	SELECT column_name, COUNT (*) FROM table_name GROUP BY column_name;	It is an clause in SQL used for aggregate functions in collaboration with the SELECT statement
HAVING	SELECT column_name, COUNT (*) FROM table_name GROUP BY column_name HAVING COUNT(*) > value;	It is used in SQL because the WHERE keyword cannot be used in aggregating functions

Command	Syntax	Description
INNER JOIN	SELECT column_name(s) FROM table_1 JOIN table_2 ON table_1.column_name = table_2.column_name;	It is used to combine rows from different tables if the Join condition goes TRUE
INSERT	INSERT INTO table_name (column_1, column_2, column_3) VALUES (value_1, 'value_2', value_3);	It is used to add new rows to a table
IS NULL/ IS NOT NULL	SELECT column_name(s) FROM table_name WHERE column_name IS NULL;	It is a operator used with the WHERE clause to check for the empty values
LIKE	SELECT column_name(s) FROM table_name WHERE column_name LIKE pattern;	It is an special operator used with the WHERE clause to search for a specific pattern in a column
LIMIT	SELECT column_name(s) FROM table_name LIMIT number;	It is a clause to specify the maximum number of rows the result set must have
MAX	SELECT MAX(column_name) FROM table_name;	It is a function that takes number of columns as an argument and return the largest value among them
MIN	SELECT MIN(column_name) FROM table_name;	It is a function that takes number of columns as an argument and return the smallest value among them

Command	Syntax	Description
OR	SELECT column_name FROM table_name WHERE column_name = value _1 OR column_name = value_ 2;	It is an operator that is used to filter the result set to contain only the rows where either condition is TRUE
ORDER BY	SELECT column_name FROM table_name ORDER BY column_name ASC | DESC;	It is a clause used to sort the result set by a particular column either numerically or alphabetically
OUTER JOIN	SELECT column_name(s) FROM table_1 LEFT JOIN table_2 ON table_1.column_name = table_2.column_name;	It is sued to combine rows from different tables even if the condition is NOT TRUE
ROUND	SELECT ROUND(column_ name,integer) FROM table_name;	It is a function that takes the column name and a integer as an argument, and rounds the values in a column to the number of decimal places specified by an integer
SELECT	SELECT column_name FROM table_name;	It is a statement that is used to fetch data from a database
SELECT DISTINCT	SELECT DISTINCT column_ name FROM table_name;	It is used to specify that the statement is a query which returns unique values in specified columns
SUM	SELECT SUM(column_name) FROM table_name;	It is function used to return sum of values from a particular column

Command	Syntax	Description
UPDATE	UPDATE table_name SET some_column = some_value WHERE some_column = some_value;	It is used to edit rows in a table
WHERE	SELECT column_name(s) FROM table_name WHERE column_name operator value;	It is a clause used to filter the result set to include the rows which where the condition is TRUE
WITH	WITH temporary_name AS (SELECT * FROM table_name) SELECT * FROM temporary_name WHERE column_name operator value;	It is used to store the result of a particular query in a temporary table using an alias
DELETE	DELETE FROM table_name WHERE some_column = some_value;	It is used to remove the rows from a table
AVG	SELECT AVG(column_name) FROM table_name;	It is used to aggregate a numeric column and return its average

Commands and syntax for querying data from Single Table		Commands and syntax for querying data from Multiple Table
SELECT c1 FROM t To select the data in Column c1 from table t		SELECT c1, c2 FROM t1 INNER JOIN t2 on condition Select column c1 and c2 from table t1 and perform an inner join between t1 and t2

Commands and syntax for querying data from Single Table	Commands and syntax for querying data from Multiple Table
SELECT * FROM t To select all rows and columns from table t	SELECT c1, c2 FROM t1 LEFT JOIN t2 on condition Select column c1 and c2 from table t1 and perform a left join between t1 and t2
SELECT c1 FROM t WHERE c1 = 'test' To select data in column c1 from table t, where c1=test	SELECT c1, c2 FROM t1 RIGHT JOIN t2 on condition Select column c1 and c2 from table t1 and perform a right join between t1 and t2
SELECT c1 FROM t ORDER BY c1 ASC (DESC) To select data in column c1 from table t either in ascending or descending order	SELECT c1, c2 FROM t1 FULL OUTER JOIN t2 on condition Select column c1 and c2 from table t1 and perform a full outer join between t1 and t2
SELECT c1 FROM t ORDER BY c1LIMIT n OFFSET offset To skip the offset of rows and return the next n rows	SELECT c1, c2 FROM t1 CROSS JOIN t2 Select column c1 and c2 from table t1 and produce a Cartesian product of rows in a table
SELECT c1, aggregate(c2) FROM t GROUP BY c1 To group rows using an aggregate function	SELECT c1, c2 FROM t1, t2 Select column c1 and c2 from table t1 and produce a Cartesian product of rows in a table

Commands and syntax for querying data from Single Table	Commands and syntax for querying data from Multiple Table
SELECT c1, aggregate(c2) FROM t GROUP BY c1HAVING condition Group rows using an aggregate function and filter these groups using 'HAVING' clause	SELECT c1, c2 FROM t1 A INNER JOIN t2 B on condition Select column c1 and c2 from table t1 and join it to itself using INNER JOIN clause

FURTHERMORE:

SQL Developer, SQL DBA Training Masters Program