

SQL Pocket Dictionary

75 SQL Terms
Explained in One
line —————→

Save for later reference

.....→



- SQL (Structured Query Language): A domain-specific language used for managing and manipulating relational databases.
- Database: A structured collection of data that is organized and managed for easy retrieval and manipulation.
- Table: A fundamental component of a database where data is stored in rows and columns.
- Row: A single record or entry in a database table.
- Column: A vertical element in a database table representing a specific attribute or field.
- Primary Key: A unique identifier for each row in a table, used to ensure data integrity and enable efficient data retrieval.
- Foreign Key: A column in a table that references the primary key of another table, establishing a relationship between the two.
- Index: A data structure that enhances the speed of data retrieval operations on specific columns.
- Query: A request for data retrieval or manipulation written in SQL.
- SELECT: A statement used to retrieve data from one or more tables.



- FROM: A clause in a SQL query that specifies the table(s) from which data will be retrieved.
- WHERE: A clause in a SQL query used to filter rows based on specified conditions.
- INSERT: A statement used to add new rows into a table.
- UPDATE: A statement used to modify existing data in a table.
- DELETE: A statement used to remove rows from a table.
- JOIN: A clause used to combine rows from two or more tables based on related columns.
- INNER JOIN: A type of join that returns only the rows with matching values in both tables.
- LEFT JOIN: A type of join that returns all rows from the left table and matching rows from the right table.
- RIGHT JOIN: A type of join that returns all rows from the right table and matching rows from the left table.
- FULL OUTER JOIN: A type of join that returns all rows when there is a match in either the left or right table.



- GROUP BY: A clause used to group rows based on one or more columns, typically used with aggregate functions.
- HAVING: A clause used to filter grouped data based on aggregate function results.
- ORDER BY: A clause used to sort the result set based on specified columns.
- DISTINCT: A keyword used to retrieve unique values from a column in the result set.
- COUNT: An aggregate function that returns the number of rows in a result set or the number of occurrences of a specific value.
- SUM: An aggregate function that calculates the sum of values in a column.
- AVG: An aggregate function that calculates the average of values in a column.
- MIN: An aggregate function that returns the minimum value in a column.
- MAX: An aggregate function that returns the maximum value in a column.
- LIKE: A comparison operator used in a WHERE clause to search for a specified pattern in a column.



- IN: A comparison operator used to check if a value matches any value in a list.
- BETWEEN: A comparison operator used to retrieve values within a specified range.
- NOT: A logical operator used to negate a condition.
- AND: A logical operator used to combine multiple conditions, requiring all conditions to be true.
- OR: A logical operator used to combine multiple conditions, requiring at least one condition to be true.
- NULL: A special value representing the absence of data.
- UNION: A clause used to combine the result sets of two or more SELECT queries into a single result set.
- UNION ALL: A variation of UNION that retains all rows, including duplicates, from the combined result sets.
- CREATE TABLE: A statement used to create a new database table.
- ALTER TABLE: A statement used to modify an existing database table, such as adding or dropping columns.



- **Stored Procedure:** A pre-compiled collection of SQL statements that can be executed as a single unit.
- **Transaction:** A sequence of one or more SQL statements that are executed as a single unit of work.
- **ACID Properties:** A set of properties (Atomicity, Consistency, Isolation, Durability) that guarantee the reliability of database transactions.
- **Relational Database Management System (RDBMS):** Software that manages relational databases and executes SQL queries.
- **NoSQL (Not Only SQL):** A class of databases that do not adhere to the traditional tabular relational model.
- **Data Warehouse:** A large, centralized repository of data from various sources used for analysis and reporting.
- **Data Mart:** A subset of a data warehouse, focused on specific business functions or departments.
- **OLAP (Online Analytical Processing):** A technology that enables interactive analysis of large datasets for business intelligence.
- **OLTP (Online Transaction Processing):** A technology designed for managing and processing transactional workloads.
- **Normalization:** The process of organizing data in a database to reduce redundancy and improve data integrity.



- DROP TABLE: A statement used to delete an existing database table.
- TRUNCATE TABLE: A statement used to delete all rows from a table, preserving the table structure.
- COMMIT: A statement used to permanently save changes made in a transaction to the database.
- ROLLBACK: A statement used to undo changes made in a transaction before it is committed.
- CONSTRAINT: A rule applied to a column or a group of columns that ensures data integrity.
- CASCADE: A referential action that propagates changes to the referenced table through foreign key relationships.
- DDL (Data Definition Language): SQL commands used to define and manage database objects like tables, indexes, etc.
- DML (Data Manipulation Language): SQL commands used to manipulate and interact with data in the database.
- Subquery: A query embedded within another query, typically used for filtering or joining.
- View: A virtual table derived from one or more existing tables, presenting data in a customized way.



- Denormalization: The process of deliberately introducing redundancy to improve data retrieval performance.
- Indexing: The creation of indexes on columns to speed up data retrieval and query performance.
- Aggregation: The process of combining data from multiple rows into a single result using aggregate functions.
- Trigger: A special type of stored procedure that is automatically executed when specific database events occur.
- B-Tree: A data structure used for organizing and storing index data in a database.
- Rollup: A grouping operation that generates subtotals for selected columns in a result set.
- Cube: A grouping operation that generates subtotals for all possible combinations of selected columns in a result set.
- Data Manipulation: The process of adding, modifying, or deleting data in a database using SQL.
- Data Definition: The process of defining or modifying the structure of a database using SQL.
- Substring: A function used to extract a portion of a string based on specified starting position and length.



- Alias: A temporary name given to a table or column in a query for readability and convenience.
- Materialized View: A precomputed view stored physically in the database to improve query performance.
- Full-Text Search: A technique used to search for specific words or phrases in large blocks of text.
- UPSERT: A combination of UPDATE and INSERT, used to either update existing records or insert new records if they do not exist.
- Common Table Expression (CTE): A temporary result set that can be referenced within the context of a single SQL statement.

