SQL NOTES

INSERT INTO is a clause that adds the specified row or rows.

VALUES is a clause that indicates the data being inserted.

SELECT statements are used to fetch data from a database.

FROM celebs specifies the name of the table to query data from. In this statement, data is queried from the celebs table.

\* Is a special wildcard character that allows you to select every column in a table

 The UPDATE statement edits a row in the table.

SET is a clause that indicates the column to edit.

WHERE is a clause that indicates which row(s) to update with the new column value.

The ALTER TABLE statement added a new column to the table.

ADD COLUMN is a clause that lets you add a new column to a table.

The DELETE FROM statement deletes one or more rows from a table.

Summary:

* CREATE TABLE creates a new table.
* INSERT INTO adds a new row to a table.
* SELECT queries data from a table.
* UPDATE edits a row in a table.
* ALTER TABLE changes an existing table.
* DELETE FROM deletes rows from a table.

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SELECT DISTINCT specifies that the statement is going to be a query that returns unique values in the specified column(s)

Operators create a condition that can be evaluated as either true or false. Common operators used with the WHERE clause are:

* = equals
* != not equals
* > greater than
* < less than
* >= greater than or equal to
* <= less than or equal to

LIKE can be a useful operator when you want to compare similar values.

The BETWEEN operator is used to filter the result set within a certain range.

 AND is an operator that combines two conditions.

The OR operator evaluates each condition separately and if any of the conditions are true then the row is added to the result set.

You can sort the results of your query using ORDER BY 🡺 either ASC or DESC.

LIMIT is a clause that lets you specify the maximum number of rows the result set will have.

Summary:

* SELECT is the clause you use every time you want to query information from a database.
* WHERE is a popular command that lets you filter the results of the query based on conditions that you specify.
* LIKE and BETWEEN are special operators that can be used in a WHERE clause
* AND and OR are special operators that you can use with WHERE to filter the query on two or more conditions.
* ORDER BY lets you sort the results of the query in either ascending or descending order.
* LIMIT lets you specify the maximum number of rows that the query will return. This is especially important in large tables that have thousands or even millions of rows.

**Functions for Queries**

The fastest way to calculate the number of rows in a table is to use the COUNT() function.

GROUP BY is a clause in SQL that is only used with aggregate functions. It is used in collaboration with the SELECT

SQL makes it easy to add all values in a particular column using SUM().

MAX() is a function that takes the name of a column as an argument and returns the largest value in that column.

SQL uses the AVG() function to quickly calculate the average value of a particular column.

ROUND() is a function that takes a column name and an integer as an argument.

Summary:

* COUNT takes the name of a column(s) as an argument and counts the number of rows where the value(s) is not NULL.
* GROUP BY is a clause used with aggregate functions to combine data from one or more columns.
* SUM() takes the column name as an argument and returns the sum of all the values in that column.
* MAX() takes the column name as an argument and returns the largest value in that column.
* MIN() takes the column name as an argument and returns the smallest value in that column.
* AVG() takes a column name as an argument and returns the average value for that column.
* ROUND() takes two arguments, a column name and the number of decimal places to round the values in that column.

**Primary Keys**

A **primary key** serves as a unique identifier for each row or record in a given table. The primary key is literally an id value for a record.

AS is a keyword in SQL that allows you to rename a column or table using an alias.

Summary:

* *Primary Key* is a column that serves a unique identifier for row in the table. Values in this column must be unique and cannot be NULL.
* *Foreign Key* is a column that contains the primary key to another table in the database. It is used to identify a particular row in the referenced table.
* *Joins* are used in SQL to combine data from multiple tables.
* INNER JOIN will combine rows from different tables if the *join condition* is true.
* LEFT OUTER JOIN will return every row in the *left* table, and if the join condition is not met, NULL values are used to fill in the columns from the *right* table.
* AS is a keyword in SQL that allows you to rename a column or table in the result set using an *alias*.