1. What is the difference between the WHERE and HAVING clause? Provide an example of when you might use each.

Hi everyone,

The WHERE & HAVING clauses are essential components of SQL queries. The WHERE clause is used to filter rows from a table based on specific conditions, typically before any grouping occurs. It only operates on individual rows, so it does not know what a group is. This is where HAVING comes in, as is used to filter groups of rows, that result from the GROUP BY clause. It is applied after the data has been grouped and aggregated, allowing you to filter groups based on aggregate values, such as counts, sums, averages, etc. Unlike the WHERE clause, which filters individual rows, the HAVING clause operates on group of rows. For instance, you might use a HAVING clause to select only those groups where the average score, amount exceeds a certain threshold. For example,

SELECT class\_id, AVG(score) AS avg\_score

FROM student\_scores

GROUP BY class\_id

HAVING AVG(score) > 85;

The clause WHERE can be used to filter students who scored above 80 but as you can see no group id exists, in short nothing has been grouped before, just listed.

SELECT student\_name, score

FROM student\_scores

WHERE score > 80;

In summary, the WHERE clause filters rows before any grouping or aggregation has occurred, while the HAVING clause filters groups of rows after they have been grouped and aggregated. This makes the HAVING clause more accurate that the WHERE clause but both are crucial for refining query results.

Forta B. (2020) Sams Teach Yourself SQL. Pearson

<https://learnsql.com/blog/sql-having-explained/#:~:text=The%20basic%20difference%20is%20that%20WHERE%20works%20on,used%20in%20other%20statements%2C%20like%20DELETE%20or%20UPDATE>.