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Assignment-03

IT 130: Foundations of Databases

# Aggregate Functions: Usage and Sorting

1. When would you use an aggregate function?

An “aggregate function” adds, counts, subtracts, or combines values in a table. This function helps make databases more intuitive by excluding, combining, and subtracting information[[1]](#footnote-1). A case where this may be used is below:

1. When do you need to use Group By with an aggregate function?

“Group By” creates a result set where a field group is listed only once even if there are multiples records in the field.

1. What is the difference between Where and Having?-----

Both clauses are used to filter out data. However, in the execution of the “where clause” the join happens first; then certain columns are excluded. While the “having” clause filters out after the grouping aggregations.[[2]](#footnote-2).

Figure 1

Explanation: This query generated 200 results!

Select ProductName, Sum (Quantity)

From [Order Details] Join Products

On [Order Details].ProductId = Products.ProductID

Group By ProductName

Having Sum (Quantity) > 200

Order By ProductName

Figure 2

Explanation: The result would be one that had the sum of 200.Which in this case would be only one row.

Select ProductName, Sum (Quantity)

From [Order Details] Join Products

On [Order Details].ProductId = Products.ProductID

Where Quantity > 100

Group By ProductName

Having Sum (Quantity) > 200

Order By ProductName

1. External site: https://www.youtube.com/watch?v=IVMfDpCGwK4&feature=youtu.be [↑](#footnote-ref-1)
2. External site: https://www.youtube.com/watch?v=m73Rx60qWXo&feature=youtu.be [↑](#footnote-ref-2)