ORDER BY, GROUP BY and Comparison of the Two

ORDER BY: Multi-field sort: City is the primary sort, Annualsales the secondary

|  |  |
| --- | --- |
| SELECT RestaurantID, City, Annualsales  FROM Restaurants  ORDER BY City, Annualsales; |  |

Compare GROUP BY and ORDER BY

|  |  |
| --- | --- |
| SELECT City, COUNT(RestaurantID) AS NumRestInCity, AVG(Annualsales) AS AvgSales  FROM Restaurants  **GROUP BY City**; | **Twenty restaurants collapsed to 9 city groups** |

|  |  |
| --- | --- |
| SELECT City, COUNT(RestaurantID) AS NumRestInCity, AVG(Annualsales) AS AvgSales  FROM Restaurants  GROUP BY City  **ORDER BY AVG(Annualsales) DESC**; |  |

Aggregate function w and w/o group by

|  |  |
| --- | --- |
| SELECT City, COUNT(RestaurantID) AS NumRestInCity, AVG(Annualsales) AS AvgSales  FROM Restaurants  **GROUP BY City**; |  |

Without GROUP BY:

|  |  |
| --- | --- |
| SELECT COUNT(RestaurantID) AS NumRestInCity, AVG(Annualsales) AS AvgSales  FROM Restaurants  (There was no grouping) | The above aggregate functions are performed over **the WHOLE table** |

GROUP BY w conditions – “HAVING”

|  |  |
| --- | --- |
| SELECT City, COUNT(RestaurantID) AS NumRestInCity, AVG(Annualsales) AS AvgSales  FROM Restaurants  GROUP BY City  HAVING COUNT(RestaurantID)>2; | ONLY those cities w more than 2 restaurants were selected |