**Apr 15 Class Examples**

1. ORDER BY multiple fields; expression; usage of alias;
   1. List RID, City, AnnualSales, order by City within Type (Type is Primary sort, and City 2ndry); same field, by Type within City
   2. Expression – sales per squarefoot; Alias – SalePerFt: Alias can ONLY be used as the column header (for display); it cannot be used as part of a mathematical expression or Boolean operation.
   3. Use alias in Boolean – see above
   4. Use alias in mathematical expression as criteria – “SalePerFoot>=350” did NOT work
   5. Take-out restaurants not in Miami, Orlando, or Santa Monica

SELECT RestaurantID, Typeofservice,city

FROM Restaurants

WHERE typeofservice="Take-Out"

AND city not in ('Miami', 'Santa Monica', 'Orlando');

1. Group by: Aggregate function;
2. COUNT(RestaurantID) >=2 – the cities where there are at least two restaurants in the DB

SELECT COUNT(RestaurantID) AS TotalNumRestaurants, city

FROM Restaurants

GROUP BY city

HAVING COUNT(RestaurantID) >=2; -- This filters the cities for those having at least 2 restaurants

1. List the types of services for which AVG(AnnualSales) >= 500,000

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1. Group by: row value and set value

* Squarefootage added; ORDER BY the complete expression (AVG(Squarefootage)) rather than by the alias (AVGofSqFt – NO)
* TypeOfService added

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1. WHERE vs HAVING
2. city = ‘Miami’ or city = ‘Orlando’

|  |  |
| --- | --- |
| WHERE: |  |
| HAVING |  |

1. annualsales >=400000

|  |  |
| --- | --- |
| WHERE AnnualSales  >=  400000 |  |
| HAVING AVG(AnnualSales)  >=  4000000 |  |

1. Count(restaurantID) >=2

GROUP BY city;

|  |  |
| --- | --- |
| WHERE: | Same or different?  Work or not work? |
| HAVING: |  |

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1. Group by multiple fields
   1. City and typeofservice, respectively and together

|  |  |
| --- | --- |
| Grp By City |  |
| By Type |  |
| By Type then by City |  |

Code for the last query above:

SELECT TypeofService, City, Count(RestaurantID) AS CountOfRestaurantID, Avg(AnnualSales) AS AvgOfAnnualSales

FROM Restaurants

GROUP BY TypeofService, City

ORDER BY TypeofService, City;