**IS 441 SQL Subquery Demo 2: Non-Correlated and Correlated Suqueries**

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**Non-Correlated Subquery:**

List restaurant IDs for those restaurants in the kind of cities where there are at least three restaurants

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| SELECT RestaurantID, City  FROM Restaurants  WHERE City IN  (SELECT City FROM Restaurants  GROUP BY City  HAVING COUNT(RestaurantID)>=3); |  |

**Correlated Subquery:**

The above, PLUS the number of restaurants in the city a restaurant is in.

[An excellent example of a correlated query]

* We have seen (thru my “acting”) that there needs to be a “communication” from the outer query INTO the inner query on WHAT CITY you need to do the count
* - “Passing of parameter”

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| --- | --- |
| SELECT RestaurantID, City,  (SELECT COUNT(RestaurantID) FROM Restaurants  WHERE City=R\_Outside.City  GROUP BY City) AS CountRest  FROM Restaurants R\_Outside  WHERE City IN  (SELECT City FROM Restaurants  GROUP BY City  HAVING COUNT(RestaurantID)>=3); |  |

List restaurant IDs and cities, together with City sales average (= average annual sales in the city), for those restaurants whose sales are higher than ITS OWN city average.

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| --- | --- |
| SELECT RestaurantID, AnnualSales, City,  (SELECT AVG(AnnualSales)  FROM Restaurants  WHERE City=R.City  GROUP BY City) AS CityAVG  FROM Restaurants R  WHERE AnnualSales >  (SELECT AVG(AnnualSales)  FROM Restaurants  WHERE City=R.City  GROUP BY City); |  |