*MS-SQL – MySQL Cheat Sheet*

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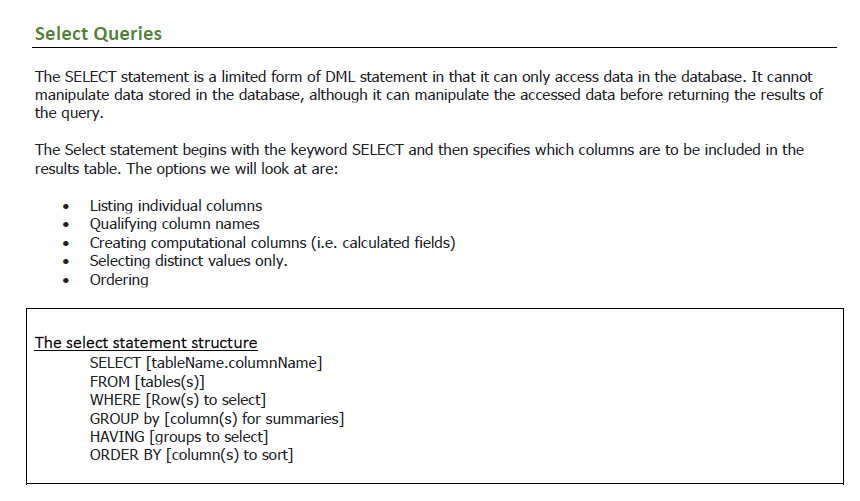
## MSSQL v MySQL – A note

While there are differences in some of the smaller items, for the most part, both languages are very similar. So, these notes could be used for either

# Basic Query Settings

## Select – N.B. Order of statements…

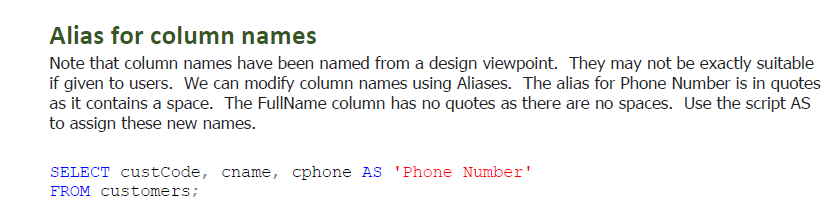
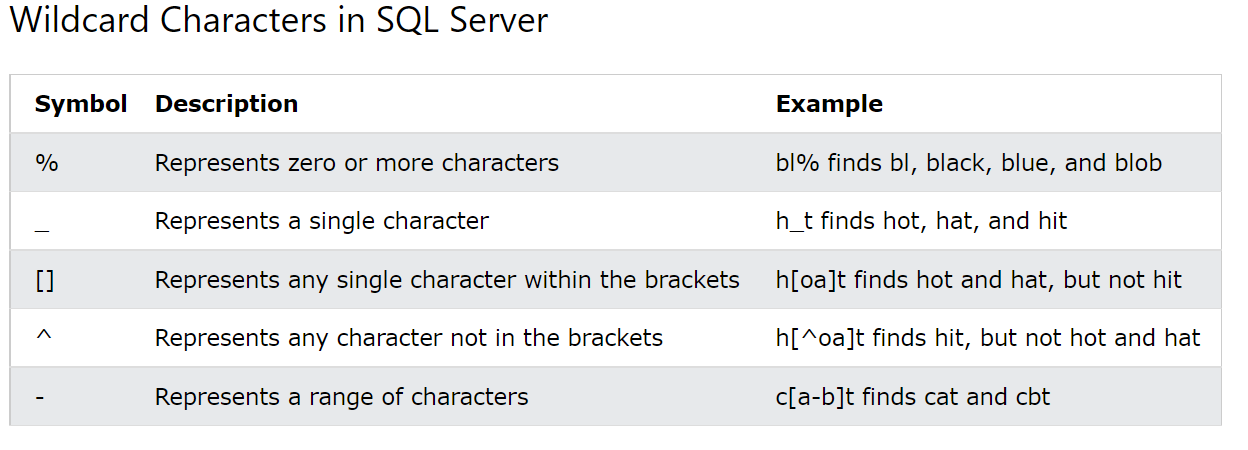
### SELECT … FROM … WHERE … GROUP … HAVING … ORDER BY



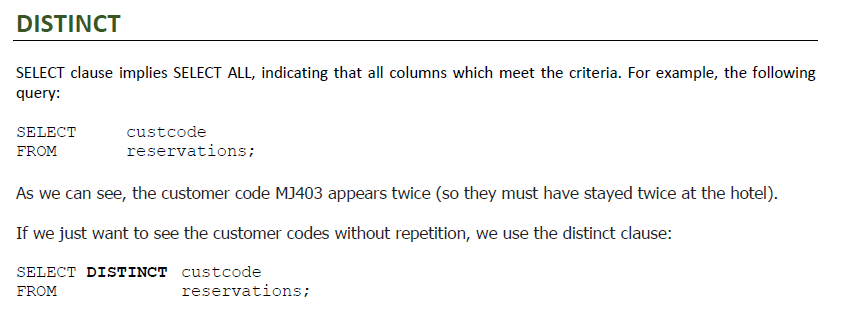
Graphical user interface, text, application

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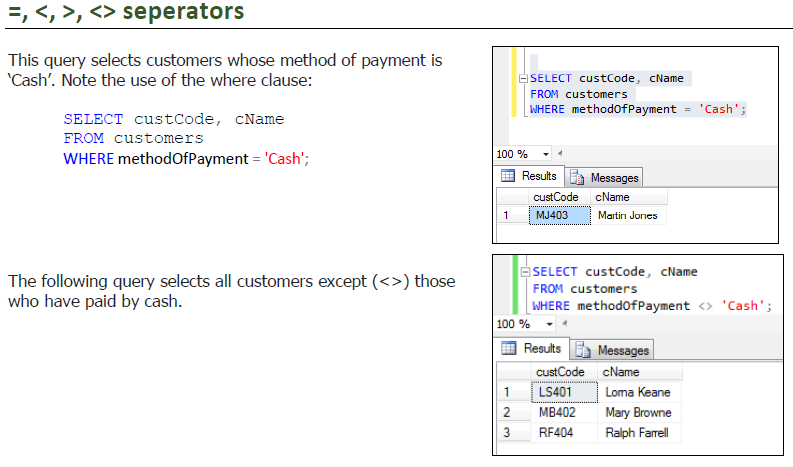
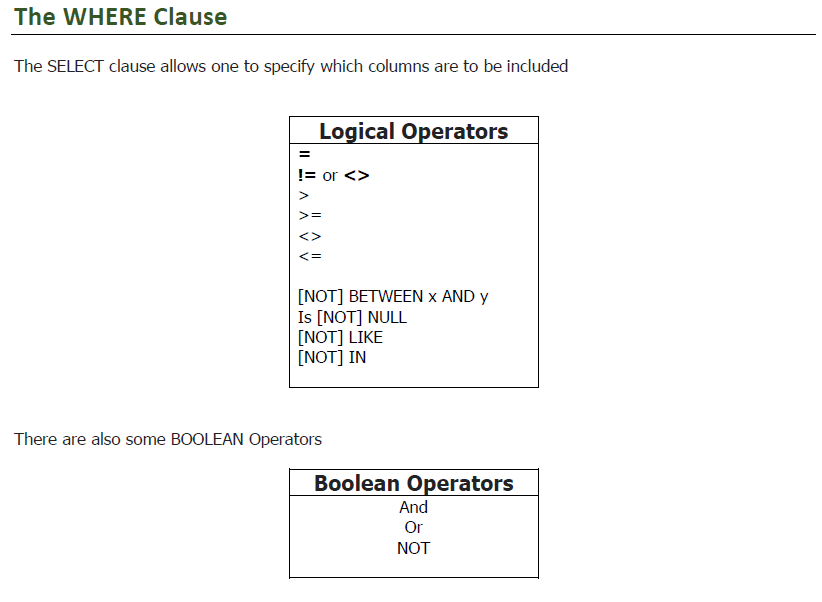
## WildCards Alias / As … making a temporary column



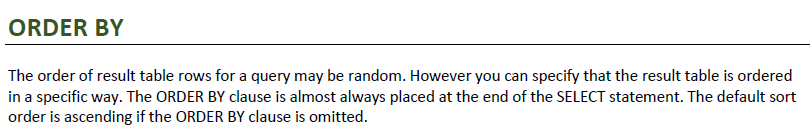
## Distinct … showing only one value of each group



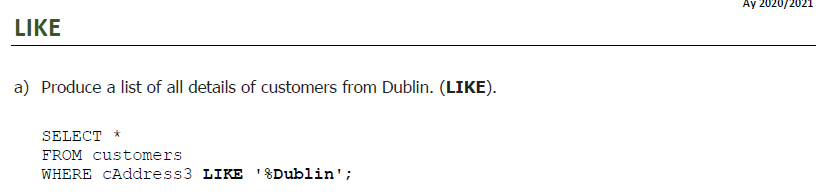
## Where … filtering criteria (equal, not equal, =, <>)



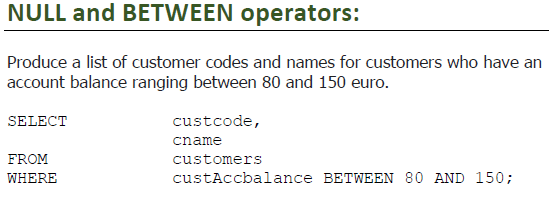
## Order By … Sorting



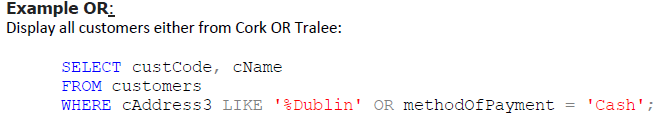
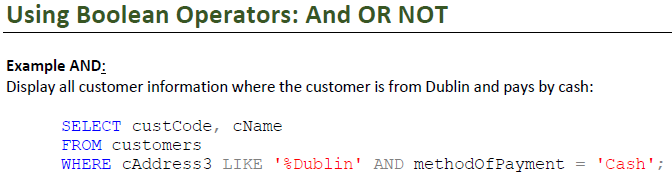
## Like … Searching for a word like … use of WildCards



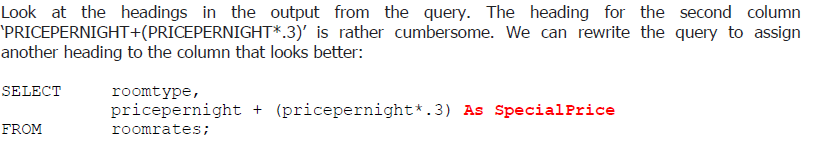
## BETWEEN … Values between a range



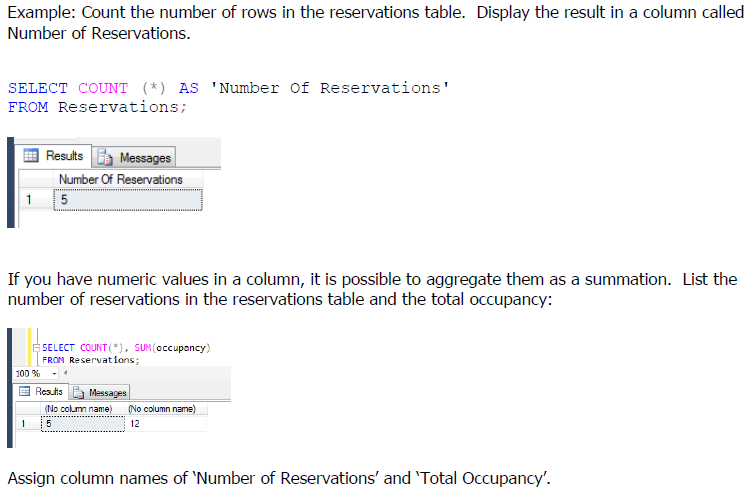
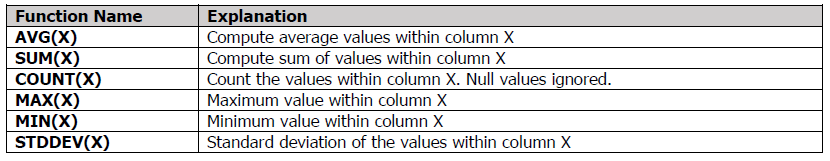
## AND / OR



## Calculated Fields



## Aggregate Functions



## Use of null

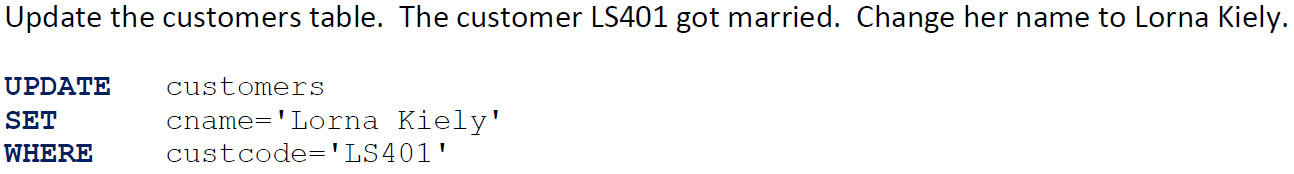
Use personaltrainer;

Select FirstName, LastName from client

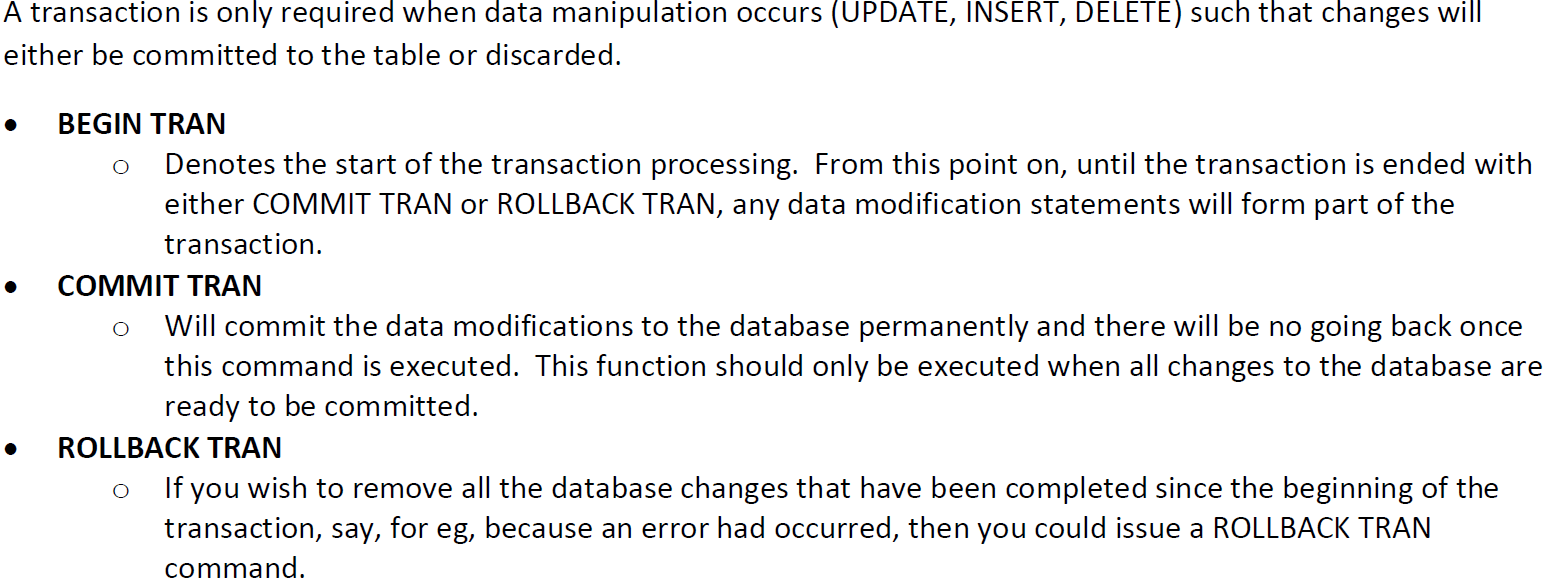
where birthdate is null;

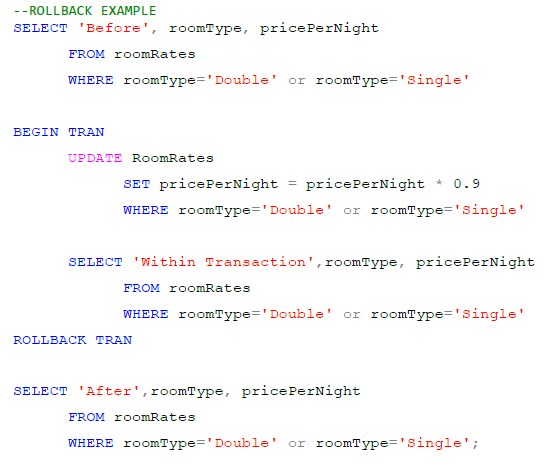
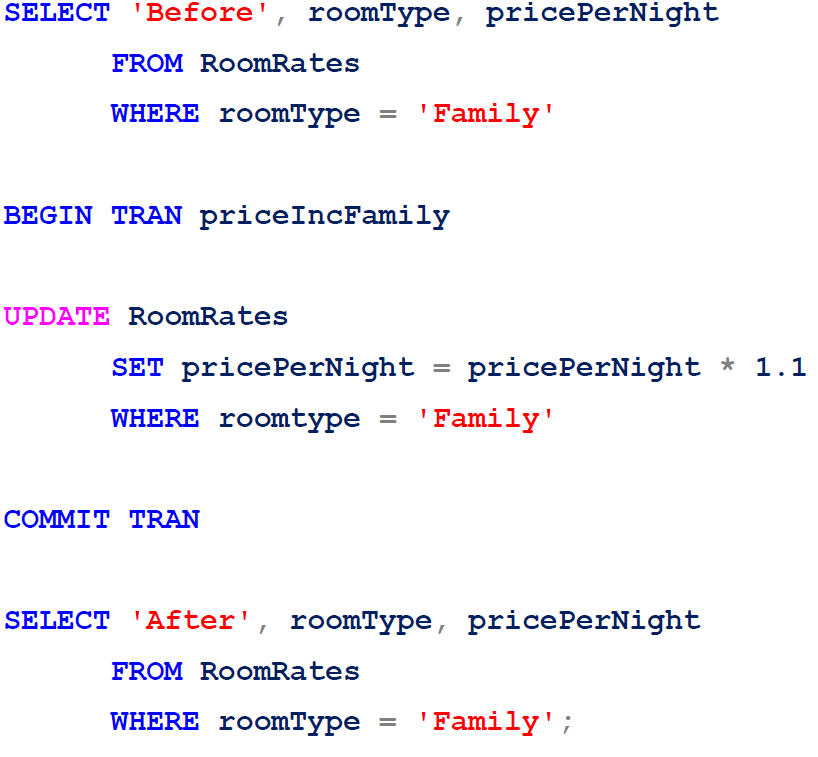
# Updating, Transactions and Deleting

## Updating using the Where clause to find record (UPDATE … SET … WHERE)

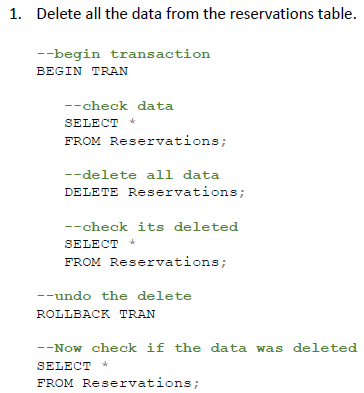


## Transactions … Begin, Commit, Rollback



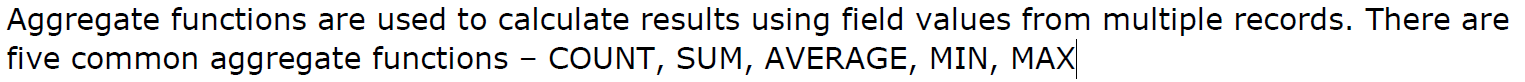


## Delete



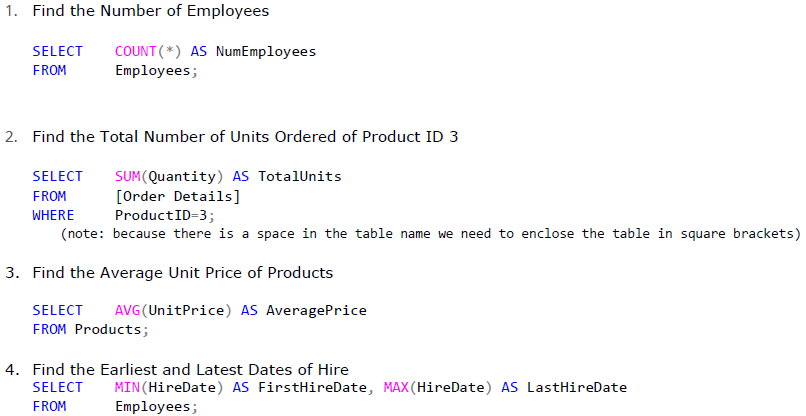
# Aggregates and Subqueries

## Aggregates – Grouping & Having

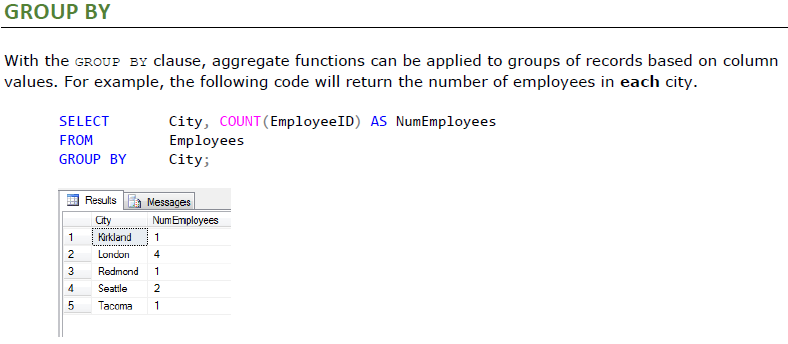


Typically use AS to have a column heading

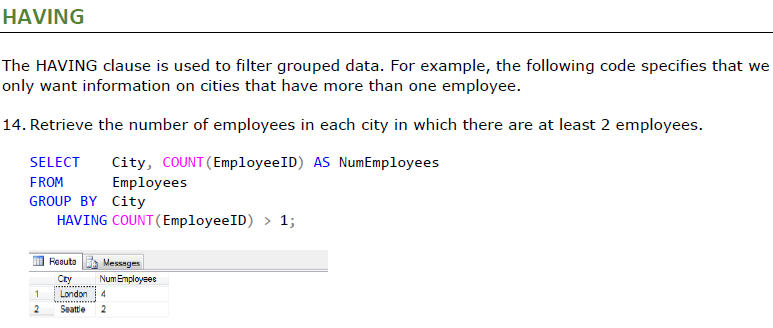
Examples:



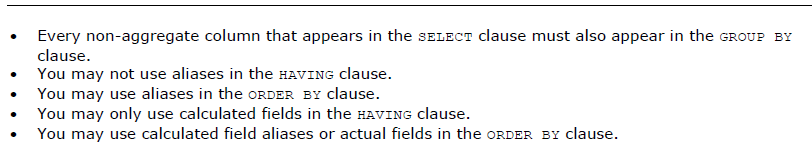
## Group by … Allows for grouping of Aggregate functions



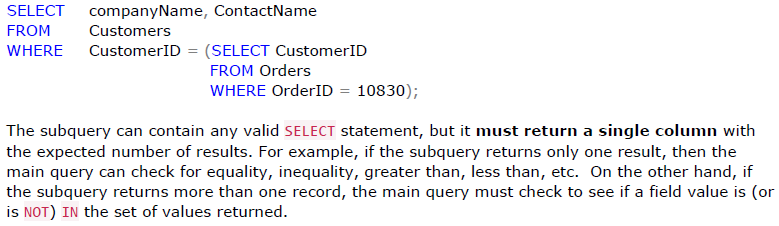
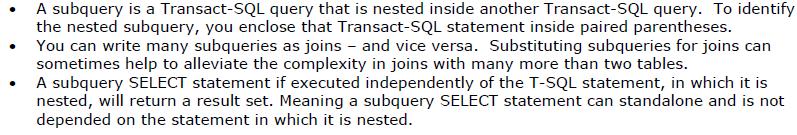
## HAVING … Filtering Grouped data



## Grouping / Having Rules



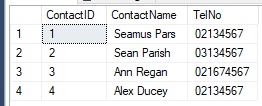
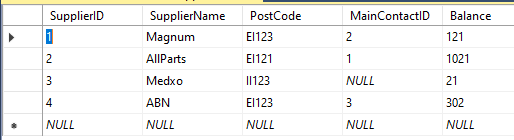
## Subquery



## Joins

Example:

**StockItems** **Suppliers** **Contacts**



Tables (Connected Fields)

StockItems 🡺 Suppliers (*MainSupplierID/SupplierID*)

Suppliers 🡺 Contacts (*MainContactID / ContactID*)

We use the connected fields as basis of Join

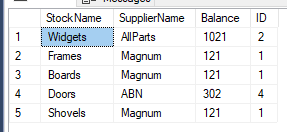
### LEFT JOIN … Show only the results from first table in this case

Select StockItems.StockName, Suppliers.SupplierName, Suppliers.Balance, StockItems.MainSupplierID AS 'ID' from StockItems

LEFT join Suppliers

ON StockItems.MainSupplierID = Suppliers.SupplierID

### WHERE Suppliers.Balance > 100



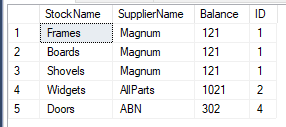
### RIGHT Join … Show results from the second table in this case

Select StockItems.StockName, Suppliers.SupplierName, Suppliers.Balance, StockItems.MainSupplierID AS 'ID' from StockItems

RIGHT join Suppliers

ON StockItems.MainSupplierID = Suppliers.SupplierID

WHERE Suppliers.Balance > 100



# Links

## Difference between ORDER by and GROUP

<https://learnsql.com/blog/sql-group-by-vs-order-by/>

## 30 Important Sample Queries

<https://learnsql.com/blog/most-important-sql-queries-for-beginners/>

## Sample Exercises

<https://www.w3resource.com/sql-exercises/>

## Generating a ERD from existing MySQL DB

Graphical user interface, text, application

Description automatically generated