

MapInfo SQL Course - Full Outline

1. The SQL Select dialogue box

- **overview explanations** - drop-downs menus and dialogue boxes descriptions
- **what data goes in which box** – outline of data descriptions for each box. Highlight restrictions.
- **grouping data by a column** – what does grouping do and grouping across multiple columns
- **sorting data by a column** – ascending and descend, numbers and text
- **selecting columns and formatting an answer** – picking which fields are shown and how that data looks
- **browser shortcuts for all the above** – V11.5 onwards for filtering, etc. Comparisons to queries.

2. Operators

- **mathematical** – examples of mathematical operators
- **logical** – examples of logical, including; AND, OR, LIKE, etc.
- **spatial** – How to join data by it's geography. Explanations and uses of CONTAINS and WITHIN

3. Aggregates

- **what they do and how they work** – why aggregate SQL results
- **count(*), SIGMA and calculating statistics** – using them in SQL and other places in MapInfo Pro
- **sum(), avg(), min(), max() and weighting** - – using them in SQL and nested examples.

4. Functions

- **what they do and how do they work** – arguments, what are they and how to get them right.
- **maths functions** – examples for functions which only work on numerical data
- **date/time functions** - examples for functions which only work on data or time data
- **string functions** - examples for functions which only work on text or string data
- **geographic functions** – examples of geographic functions and using them with aggregates

5. Joining Data

- **why join data?** – standard database functionality explained
- **spatial operators and geographic joins** – examples of spatial joins and what they do
- **text based joins – inner or outer joins** – examples for each and what they are used for
- **using data from joins** – how does MapInfo manage the results, selecting from only 1 layer at a time

6. Saving Queries – Pros and Cons

- **saving query templates** – option located on the SQL dialogue box itself
- **saving via a workspace** – MapInfo saves some and not others, getting MapInfo workspaces to ignore all queries
- **saving queries as tables** – dynamic query tables and why they are useful
- **working with queries** – renaming and using results
- **explanation of error messages** – brief explanations for common SQL errors