

Group By and Where

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Projection

- Projection is a process of making a new table from another table
- In projection, only some of the columns in the original table appear in the new table.

Duplicated Rows

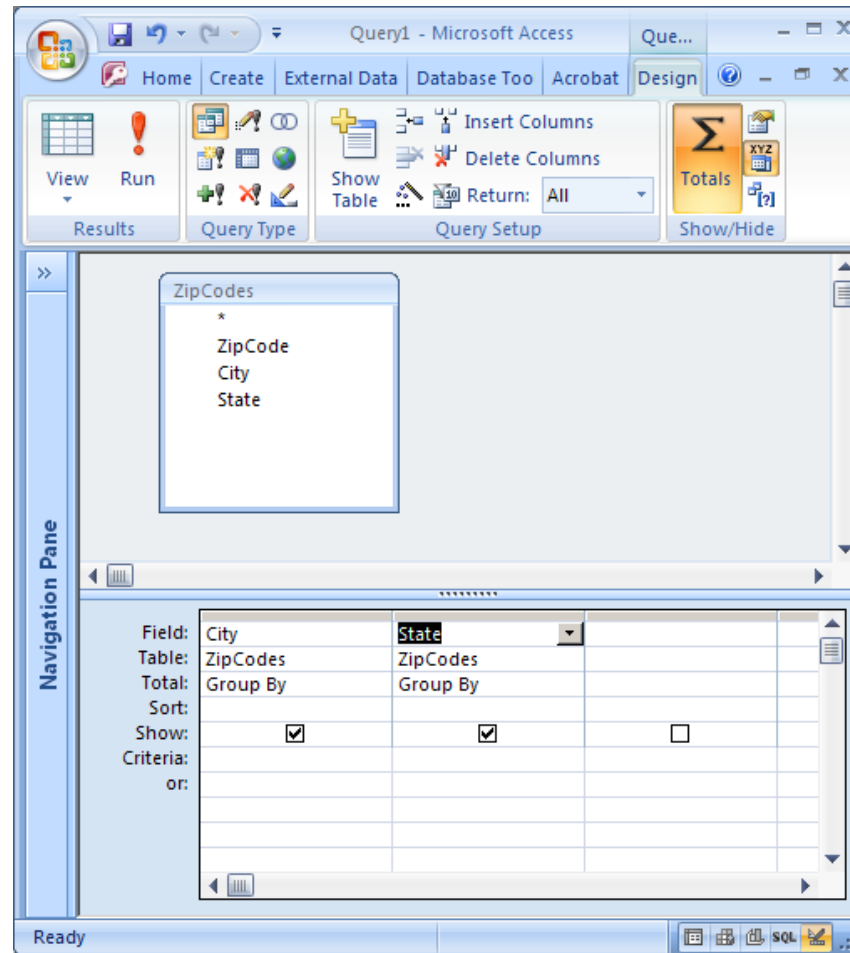
- Access queries, by default, use projection – columns must be explicitly selected if they are to be used.
- When an Access query uses projection, the resulting table may have duplicate rows.
- This may happen even if the tables used in the query do not have duplicate rows.

Duplicate Rows

ZipCodes

Zip	City	State
02115	Boston	MA
02101	Boston	MA
02138	Cambridge	MA

Eliminating Duplicates With Group By



Group By

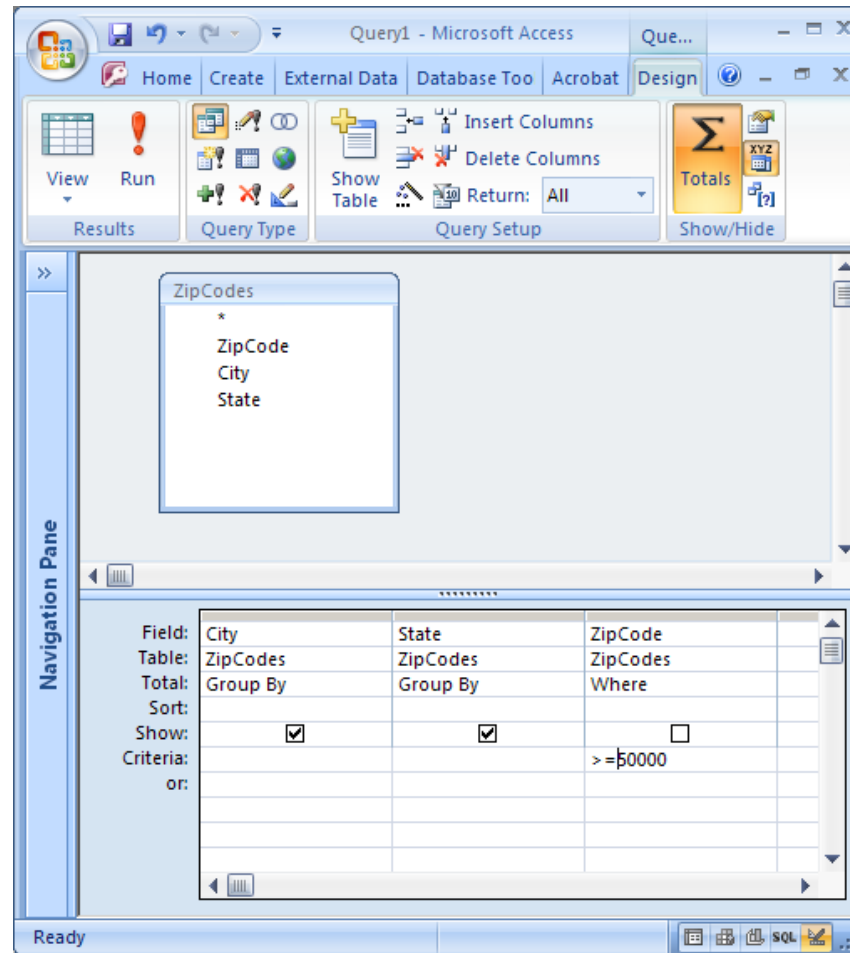
Rule:

- If one or more columns are marked “Group By”, and
- If two or more rows have identical values for each column that is marked “Group By”
- Then, those rows will be aggregated or grouped together and the final result will a single row for that group.

Where

- Sometimes one needs to include a column in a query, but wishes to avoid grouping by that column
- In that case, the column may be marked “Where”
- Columns marked “Where” will not appear in the result table, and the values in that column will be ignored during grouping.

Where



Where

- The query in the previous example finds all of the cities and states corresponding to zip codes greater than or equal to 50000
- The ZipCode column is necessary in the query for the comparison to 50000
- The query will not show the ZipCode values.
- No city/state combination will appear more than once.