

# Access Level 3

<b>Audience</b>	<p>This course is intended for people who are familiar with any version of Microsoft Access. You should have created a database and created expressions and parameters within queries. You should be able to optimize table indexes and properties to make more efficient queries. Students should take Access Level 2 prior to taking this class.</p> <p>The information in this course is important to developers. It includes advanced query concepts. Queries replace many activities that are programmed in code by other database programs and programming languages. This course also addresses setting up relationships in a database.</p>
<b>Description</b>	<p>The course uses a combination of lecture, hands-on practice, and independent exercises to continue to familiarize students with queries important to development in Microsoft Access. The course emphasizes the use of Access through commands, not Wizards.</p> <p>The focus of this course is to learn how to use Access more efficiently and productively through commands and a greater awareness of multiple table database design. It is intended to not only show the student the wide range of problem solving that is available in Access, but to allow them to gain techniques that master database processes.</p> <p>Students define permanent relationships between tables. You will build queries based on other queries. You will create action queries including update, delete, append, and make tables. Students also learn how to perform data analysis using both a PivotTable and a PivotChart. Designing and building totals and crosstab queries are also covered.</p>
<b>Objectives</b>	<p>Upon successful completion of the class, students should be able to:</p> <ul style="list-style-type: none"><li>■ create outer join, multiple join, and no join queries,</li><li>■ define permanent relationships between tables,</li><li>■ create totals or group by queries,</li><li>■ create crosstab queries,</li><li>■ create queries based on totals and crosstab queries,</li><li>■ create update, append, delete, and make table queries,</li><li>■ create a PivotTable and PivotChart, (optional)</li><li>■ modify a PivotTable and PivotChart. (optional)</li></ul>
<b>Length</b>	1 day



**Beyond this Level** When you have successfully completed this class, the next class you should consider is Access Reports and Forms. Reports and Forms covers basic editing skills for modifying existing reports and forms; creating custom reports and forms from scratch; enhancing reports including adding sorting and grouping; adding lines, rectangles check boxes and combo boxes; using various properties to customize both reports and forms. Be sure to leave time for practice before registering for the next level.

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**I. Setting up Relationships**

- A. Multiple Source Queries
- B. What are Relationships?
- C. Expanding/Collapsing Subdatasheets
- D. Referential Integrity
- E. Cascading Updates and Deletes
- F. Join Types

**II. Totals Queries**

- A. What are Statistical Calculations?
- B. Using Statistical Calculations While Grouping
- C. Excluding Rows Before Grouping
- D. Excluding Results of Grouping
- E. Top Values
- F. Creating Expressions While Grouping
- G. Displaying the Detail Data of a Totals Query

**III. Crosstab Queries**

- A. What is a Crosstab Query?
- B. Column or Row Heading with Expression
- C. Multiple Row Headings
- D. Adding Row Totals
- E. Excluding Rows Before Crosstabbing

- F. Fixed Column Headings (Optional)

- G. Replacing Nulls with Zeros (Optional)

**IV. Action Queries**

- A. Update Query
- B. Append Query
- C. Make Table Query
- D. Delete Query

**V. Advanced Queries (Optional)**

- A. Using Parameters with Group Totals Queries
- B. Criteria Compared to Fields
- C. Multiple Join
- D. No Join Or Cross Product

**VI. PivotTables/PivotCharts (Optional)**

- A. Creating a PivotTable/PivotChart
- B. Elements of a PivotTable/PivotChart
- C. Modifying a PivotTable/PivotChart
- D. Grouping and Sorting PivotTable Fields
- E. Customizing the Layout