

Building Applications with Microsoft Access®: Hands-On - 4 Days

Course 971 Overview

- You Will Learn How To**
- Develop distributable applications with Microsoft Access
 - Incorporate design requirements to enhance application functionality
 - Customize applications by dynamically setting properties and executing methods
 - Assemble expressions into VBA statements using variables and intrinsic functions
 - Control program flow with loops and decision-making logic
 - Programmatically control data access to incorporate business rules
- Course Benefits** Microsoft Access provides the tools to build custom applications that can decrease the time and effort needed to accomplish business objectives. In this course, you gain the skills necessary to expand the capabilities of your applications. Through extensive hands-on exercises, you learn how to develop, integrate and customize Access applications using macros, expressions, VBA and Structured Query Language (SQL).
- Who Should Attend** Those planning to create, support and enhance business solutions with Microsoft Access. Experience with Access at the level of Course 970, "Microsoft Access Comprehensive Introduction," is assumed. A basic understanding of any programming language is recommended but not required.
- Hands-On Training** Extensive hands-on exercises, centered around a single case study, provide you with practical experience programming Access. Exercises include:
- Adapting business requirements into macros and VBA code
 - Exploiting Forms and controls by manipulating properties and executing methods
 - Empowering your code using built-in functions
 - Incorporating logic and iteration statements
 - Programmatically manipulating data using VBA
 - Implementing error-handling code

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Course 971 Outline

Automating Access with Macros

Designing complex macros

- Creating decision-making macros
- Implementing organizational techniques for macros
- Incorporating temporary variables
- Interfacing with the user

Maximizing macro functionality

- Trapping macro errors
- Mastering event-driven programming
- Binding macros to event properties

Transitioning to VBA

Beyond the macro object

- Identifying advantages of macros
- Converting macros to VBA
- Exploring the DoCmd

Exploring the Visual Basic Editor

- Navigating the Project Explorer
- Writing code with IntelliSense
- Troubleshooting code with debugging techniques

Programming Access Objects

Negotiating the Object Model

- Methods
- Properties
- Events
- Communicating with individual objects

Interfacing with Access objects

- Application
- Forms collection
- Form and report object
- Controls collection
- Bang (!) vs. Period (.)
- Exploiting the ComboBox, ListBox, Option Group and TextBox
- Writing code with the Me keyword

Applying event logic

- Identifying the order of events
- Assigning requirements to events
- Canceling the event sequence

Demystifying the Object Browser

- Finding objects
- Object libraries
- Locating methods, properties and events
- Gateway into the Help system

Constructing VBA Expressions

Working with variables

- Naming rules and conventions
- Declaring objects
- Implicit vs. explicit data type conversions
- Specifying the scope and life of variables

Implementing built-in functions

- Date, string and file system functions
- Utilizing domain aggregate functions
- Integrating symbolic and intrinsic constants

Controlling Program Execution

Structuring code sequences

- Creating decision-making logic
- Building iteration statements
- Queries and the Immediate If (IIf)

Logical and comparison operators

- Developing comparative statements
- Designing relational expressions

Optimizing code for scalability and reuse

- Defining procedures with arguments
- Returning values with functions

Manipulating and Managing Data

Data access

- Executing action SQL statements
- Retrieving data into Recordsets
- Building and modifying parameterized queries

Designing intelligent forms

- Interacting with unbound controls
- Changing data sources within code

Processing Runtime Errors

- Classifying errors
- Working with the Err object
- Logging and error notification
- Creating error-handling strategies

Getting Ready for Distribution

- Customizing the ribbon
- Configuring start-up options
- Creating and controlling ribbons in Access
- Locking down the database