## A Quick Microsoft Access 2007 Tutorial

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This tutorial is intended for students who need a quick introduction to Microsoft Access, but it will be useful to anyone needing such an introduction. To get the full benefit of this tutorial, you will need a computer with 500 megahertz (MHz) processor or higher and running one of Microsoft Windows XP with Service Pack (SP) 2, Windows Server 2003 with SP1, or later operating system. You will also need at least 1.5 gigabyte (GB) hard disk space to have Microsoft Access 2007 installed (a portion of this disk space will be freed after installation if the original download package is removed from the hard drive).

Microsoft Access 2007 provides a library of prebuilt database solutions to get you started quickly



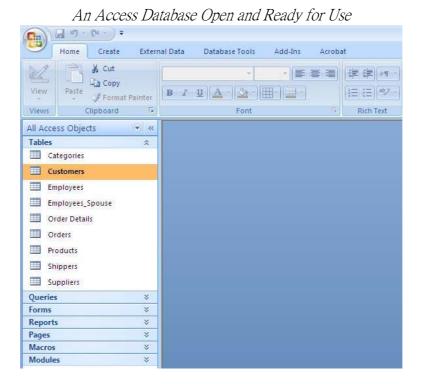
### Introduction

Though Microsoft Access is NOT synonymous with database systems; there are more copies of Microsoft Access in use than any other database system. It therefore behooves computer science students to be at least superficially familiar with MS Access. This tutorial will guide you through some of the basic point-and-click stuff, and will even show you how to issue complex SQL (Structured Query Language) queries. You will open the Northwind Microsoft sample database and query it in various ways. This is a HANDS-ON tutorial; it gives you step-by-step directions for carrying out simple tasks in Access. As you read, you should have a copy of the Northwind database open in Microsoft Access 2007, and you should carry out the tasks yourself, exactly as directed.

First, a few words about what Microsoft Access 2007 is and isn't. People who don't really understand what a relational database system is, and people who don't actually understand what Microsoft Access 2007 is, will

tell you that Microsoft Access is not a *fully relational* database system. In the database world, not being fully relational is *very bad*. Don't worry! The people who tell you that are like those who try to tell you that Linux is not a 32 bit operating system. Microsoft Access 2007, and its predecessors Access 95, 97, 02 and 03, are excellent fully relational database systems.

But Microsoft Access 2007 does have a few shortcomings. The principle shortcoming is that it is almost impossible to enforce reasonable security restrictions with Microsoft Access 2007. So if you want a variety of users to interact with a database, you should move up to Microsoft's SQL Server, an Oracle database above the level of Oracle Personal Edition, or the wonderful, and FREE, MySQL. (And let us not forget to mention the higher levels of FileMaker Pro as good possibilities.) As a certified Microsoft hater, I would naturally prefer that you move up to Oracle, MySQL, or FileMaker Pro, but I have to be fair. Microsoft's database products are *extremely good*, easy to develop for, readily accepted by the outside world, and always good choices.



This tutorial is divided into chapters. You probably should go through the chapters in sequence, starting with chapter 1.

### Chapters

- 1. GettingStarted.
- Adding and Changing Data.
- 3. Simple Queries.
- 4. Creating Append Queries
- 5. Creating QBE Queries.
- 6. Multi-table OBE Queries.
- 7. SQL Queries.

## Chapter 1. Getting Started

#### Copying the Northwind Sample Database

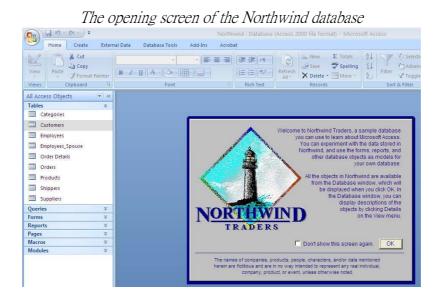
The first thing you need to do is make a copy of the Northwind sample database to avoid altering and perhaps permanently disabling it. You should use this copy instead of the original database while you go through this tutorial. You can copy the Nothwind sample database from P:\ IMSE1013\Access\ Northwind.mdb to your U: drive.

#### Opening the Northwind Sample Database

**Step 1.** Open your copy of Northwind by double clicking it. Microsoft Access will start up with a security warning. Click the "Options..." button, check the "Enable this content" checkbox and then press OK button.



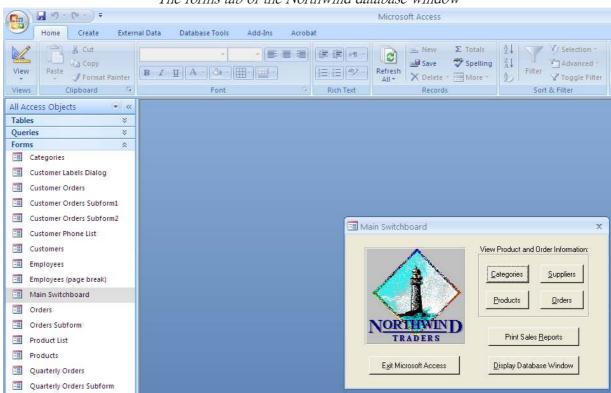
**Step 2.** If all goes well, you will see the opening screen of the Northwind database. Press the OK button to get the *Northwind Traders* splash screen out of the way and start working with the actual Northwind database.



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#### Moving around the Northwind Database

Once the opening splash screen is out of the way, you can see the *database window*. It consists of a number of *tabs*, each of which displays a different aspect of the database. Typically, the Northwind database opens with the *Forms tab* selected. In Microsoft applications, *Forms* are windows used to interact with the application. Later, after you have finished this tutorial, you might want to satisfy your curiosity about forms. If so, try selecting the *Main Switchboard* form, *dragging it to the layout* (or double clicking it). As is typical in Microsoft applications, you can close a form by clicking the small *x* at the top right of the form on its title bar. (Be careful not to click on the *x* at the top right of the Microsoft Access title bar, or you will close Access completely.) If you want to find out how to build your own forms and develop Microsoft Access applications, try find a book on Microsoft Access.



The forms tab of the Northwind database window

We are mainly interested in the relational database aspects of Microsoft Access, so let us open the *Tables* tab and look at some of the tables in the Northwind database.

**Step 1.** Press the tab marked *Tables* under the list of *Objects* at the left of the database window, and then clicks ONCE on *Customers* to select the *Customers Table*.

The tables tab of the Northwind database window with Customers selected



**Step 2.** Right-click the *Customers Table* and click *Design View* on the shortcut menu to view the design (table definition) of the *Customers Table*. Notice the small key by CustomerID. As you have probably already guessed, this means that CustomerID is a key field.

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