



# Giới thiệu về Microsoft Access

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# NỘI DUNG

- Giới thiệu về Microsoft Access
- Khảo sát các chức năng cơ bản của Access



# Giới thiệu về Microsoft Access



# Giới thiệu

- Microsoft Access, thường gọi tắt là MS Access hoặc đơn giản là Access, là một hệ quản trị CSDL quan hệ của hãng Microsoft.
- Access thường được đóng gói cùng các phần mềm khác trong bộ Microsoft Office, được sử dụng rộng rãi trong các máy tính cài hệ điều hành Windows.
- Tập tin cơ sở dữ liệu của Access có phần mở rộng là *mdb* hay *accdb* (từ MS Access 2007).
- Biểu tượng của chương trình Access thường là hình một chiếc chìa khóa.

| Năm  | Phiên bản   | Số hiệu phiên bản | Dùng với hệ điều hành      | Bộ ứng dụng Office |
|------|-------------|-------------------|----------------------------|--------------------|
| 1992 | Access 1.1  | 1                 | Windows 3.0                |                    |
| 1993 | Access 2.0  | 2.0               | Windows 3.1x               | Office 4.3         |
| 1995 | Access 95   | 7.0               | Windows 95                 | Office 95          |
| 1997 | Access 97   | 8.0               | Windows 9x, NT             | Office 97          |
| 1999 | Access 2000 | 9.0               | Windows 9x, NT, 2000       | Office 2000        |
| 2001 | Access 2002 | 10                | Windows 98, Me, 2000, XP   | Office XP          |
| 2003 | Access 2003 | 11                | Windows 2000, XP, Vista    | Office 2003        |
| 2007 | Access 2007 | 12                | Windows XP, Vista          | Office 2007        |
| 2010 | Access 2010 | 14                | Windows XP, Vista, 7, 2008 | Office 2010        |

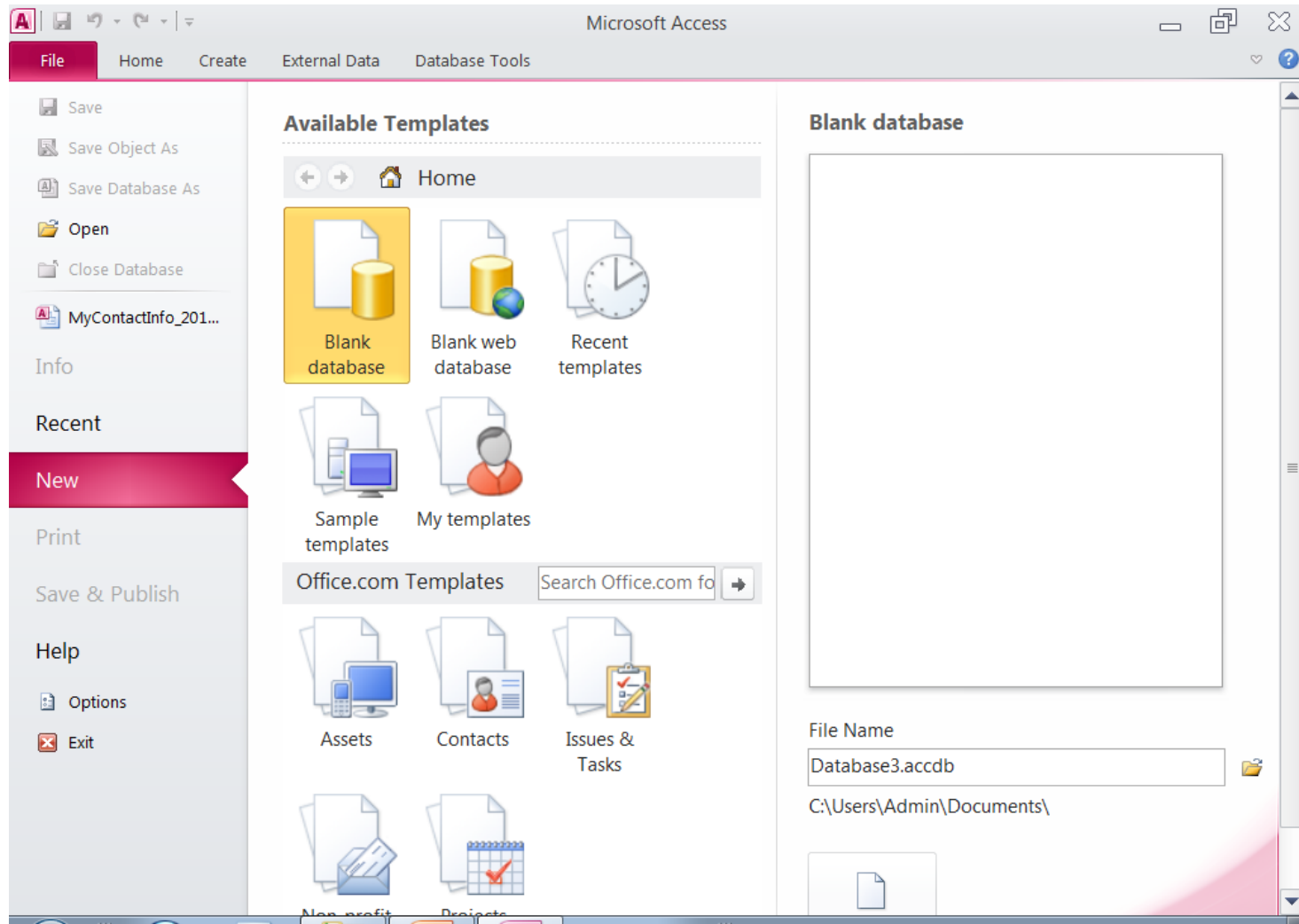
- Hiện cũng có phiên bản dành cho máy MAC

# Tạo cơ sở dữ liệu Access

- Khởi động MS Access tương tự như khởi động các ứng dụng khác trong bộ Microsoft Office
- New → blank database → tại ô file name chọn đường dẫn và đặt tên file → Create



# Tạo cơ sở dữ liệu Access



# Tạo cơ sở dữ liệu Access

The screenshot displays the Microsoft Access 2007 interface. The title bar reads "QLNS : Database (Access 2007) - Microsoft Access". The ribbon is set to "Table Tools" with the "Fields" tab selected. The ribbon includes sections for "Add & Delete" (with icons for View, Text, Number, Currency, Yes/No, More Fields, and Delete), "Properties" (with icons for Name & Caption, Default Value, Field Size, Modify Lookups, Modify Expression, and Memo Settings), "Formatting" (with dropdowns for Data Type and Format, and icons for \$, %, and decimal formatting), and "Field Validation" (with checkboxes for Required, Unique, and Indexed, and a Validation icon).

The "All Access Objects" pane on the left shows "Tables" with "Table1" listed. The main workspace shows a new table with a header row containing "ID" and "Click to Add". Below the header, a new row is being added, indicated by an asterisk (\*) and the text "(New)".



# Mở và xóa tập tin CSDL Access

- Access 2010 có thể làm việc với các tập tin CSDL định dạng Access 2000, Access 2003, Access 2007 ) mặc định sử dụng định dạng Access 2007)
- Có thể chuyển định dạng mặc định này bằng cách chọn File → Options → General → chỉnh Default file format
- Việc mở và xóa CSDL Access thực hiện hoàn toàn tương tự như đối với MS Word hay MS Excel

# Các chức năng cơ bản của Access

Mỗi tập tin CSDL Access có các đối tượng thuộc các nhóm (tương ứng với các chức năng Access cung cấp) như sau:

- **Tables:** Nơi lưu trữ dữ liệu dưới dạng các bảng 2 chiều gồm nhiều cột và nhiều dòng
- **Queries:** công cụ để truy vấn dữ liệu
- **Forms:** công cụ để xây dựng các màn hình dùng để xem và cập nhập dữ liệu
- **Reports:** công cụ dùng để lập các loại báo cáo
- **Macros:** cung cấp tập lệnh để giúp tự động hóa các tác vụ thông thường trong các ứng dụng
- **Modules:** công cụ để lập trình bằng ngôn ngữ VBA, cho phép xây dựng các ứng dụng hoàn chỉnh

# Tables

Northwind : Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools Fields Table

Clipboard: Cut, Copy, Paste, Format Painter

Sort & Filter: Filter, Ascending, Descending, Remove Sort, Selection, Advanced, Toggle Filter

Records: Refresh All, New, Save, Delete, More

Find: Find, Replace, Go To, Select

Text Formatting: Calibri, 11, Bold, Italic, Underline, Color, Background Color, Text Color, Paragraph, Styles

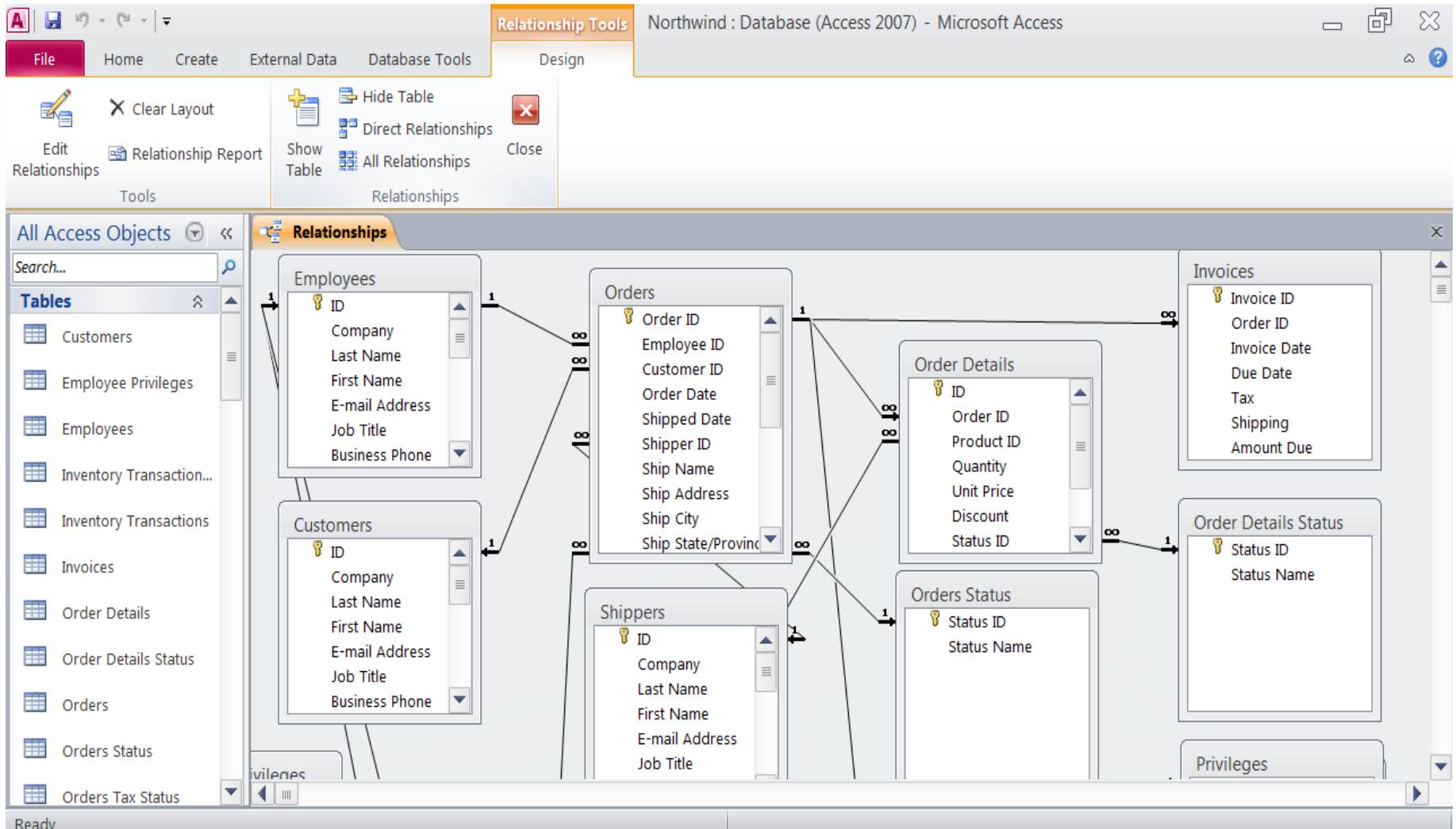
All Access Objects: Tables, Customers, Employee Privileges, Employees, Inventory Transaction..., Inventory Transactions, Invoices, Order Details, Order Details Status, Orders, Orders Status, Orders Tax Status

| ID | Company   | Last Name       | First Name    | Job Title                 | Address         | City           | State/Provin |
|----|-----------|-----------------|---------------|---------------------------|-----------------|----------------|--------------|
| 1  | Company A | Bedecs          | Anna          | Owner                     | 123 1st Street  | Seattle        | WA           |
| 2  | Company B | Gratacos Solsor | Antonio       | Owner                     | 123 2nd Street  | Boston         | MA           |
| 3  | Company C | Axen            | Thomas        | Purchasing Representative | 123 3rd Street  | Los Angelas    | CA           |
| 4  | Company D | Lee             | Christina     | Purchasing Manager        | 123 4th Street  | New York       | NY           |
| 5  | Company E | O'Donnell       | Martin        | Owner                     | 123 5th Street  | Minneapolis    | MN           |
| 6  | Company F | Pérez-Olaeta    | Francisco     | Purchasing Manager        | 123 6th Street  | Milwaukee      | WI           |
| 7  | Company G | Xie             | Ming-Yang     | Owner                     | 123 7th Street  | Boise          | ID           |
| 8  | Company H | Andersen        | Elizabeth     | Purchasing Representative | 123 8th Street  | Portland       | OR           |
| 9  | Company I | Mortensen       | Sven          | Purchasing Manager        | 123 9th Street  | Salt Lake City | UT           |
| 10 | Company J | Wacker          | Roland        | Purchasing Manager        | 123 10th Street | Chicago        | IL           |
| 11 | Company K | Krschne         | Peter         | Purchasing Manager        | 123 11th Street | Miami          | FL           |
| 12 | Company L | Edwards         | John          | Purchasing Manager        | 123 12th Street | Las Vegas      | NV           |
| 13 | Company M | Ludick          | Andre         | Purchasing Representative | 456 13th Street | Memphis        | TN           |
| 14 | Company N | Grilo           | Carlos        | Purchasing Representative | 456 14th Street | Denver         | CO           |
| 15 | Company O | Kupkova         | Helena        | Purchasing Manager        | 456 15th Street | Honolulu       | HI           |
| 16 | Company P | Goldschmidt     | Daniel        | Purchasing Representative | 456 16th Street | San Francisco  | CA           |
| 17 | Company O | Bagel           | Jean-Philinne | Owner                     | 456 17th Street | Seattle        | WA           |

Record: 2 of 29 No Filter Search

Datasheet View

# Relationship



# Query

Northwind : Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools Design

View Run Select Make Table Append Update Crosstab Delete Union Pass-Through Data Definition Show Table Insert Rows Delete Rows Builder Return: 10 Totals Parameters Property Sheet Table Names

Results Query Type Query Setup Show/Hide

All Access Objects Search... Tables Queries Customers Extended Employees Extended Inventory Inventory on Hold Inventory on Order Inventory Purchased Inventory Sold Invoice Data Order Details Extend... Order Price Totals

Sales Analysis Top Ten Orders by Sales Amount

Customers Extended  
\*  
File As  
Contact Name  
ID  
Company

Orders  
\*  
Order ID  
Employee ID  
Customer ID  
Order Date

Order Subtotals  
\*  
Order ID  
Subtotal

|           |                                     |                                     |                                     |                                     |                          |  |
|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--|
| Field:    | Order ID                            | Order Date                          | SaleAmount: Subtotal                | CompanyName: Company                | Shipped Date             |  |
| Table:    | Orders                              | Orders                              | Order Subtotals                     | Customers Extended                  | Orders                   |  |
| Sort:     |                                     |                                     | Descending                          |                                     |                          |  |
| Show:     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  |
| Criteria: |                                     |                                     |                                     |                                     |                          |  |
| or:       |                                     |                                     |                                     |                                     |                          |  |


# Form

Employee Details

## Andrew Cencini

Go to  E-mail Create Outlook Contact Save and New Close

General Orders

|            |  |   |          |  |
|------------|--|---|----------|--|
| First Name | <input type="text" value="Andrew"/>                |  | E-mail   | <input type="text" value="andrew@northwindtraders.com"/> |
| Last Name  | <input type="text" value="Cencini"/>               |   | Web Page | <input type="text" value="http://northwindtraders.com"/> |
| Company    | <input type="text" value="Northwind Traders"/>     |   |          |  |
| Job Title  | <input type="text" value="Vice President, Sales"/> |   |          |  |

**Phone Numbers**

|                |  |
|----------------|--|
| Business Phone | <input type="text" value="(123)555-0100"/> |
| Home Phone     | <input type="text" value="(123)555-0102"/> |
| Mobile Phone   | <input type="text"/>                       |
| Fax Number     | <input type="text" value="(123)555-0103"/> |

**Address**

|                |   |
|----------------|---|
| Street         | <input type="text" value="123 2nd Avenue"/> |
| City           | <input type="text" value="Bellevue"/>       |
| State/Province | <input type="text"/>                        |

**Notes**

Joined the company as a sales representative, was promoted to sales manager and was then named vice president of sales.

Records: 14 of 0 | No Filter | Search

# Report

Northwind : Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools

View Paste Format Painter Filter Sort & Filter Records Find Text Formatting

All Access Objects Search... Tables Queries Forms Reports

Customer Address B... Customer Phone Book Employee Address B... Employee Phone Book Invoice Monthly Sales Report Product Category Sal... Product Sales by Cat... Product Sales by Tot...

Sales Analysis Quarterly Sales Report

Wednesday, February 08, 2012 10:39:37 AM

## Quarterly Sales Report

Q2 2006

| Employee            | Apr                | May               | Jun           | Total              |
|---------------------|--------------------|-------------------|---------------|--------------------|
| Nancy Freehafer     | \$2,620.50         | \$1,588.50        | \$0.00        | \$4,209.00         |
| Andrew Cencini      | \$127.50           | \$0.00            | \$0.00        | \$127.50           |
| Jan Kotas           | \$3,520.00         | \$0.00            | \$0.00        | \$3,520.00         |
| Mariya Sergienko    | \$1,850.00         | \$200.00          | \$0.00        | \$2,050.00         |
| Michael Neipper     | \$5,592.00         | \$0.00            | \$0.00        | \$5,592.00         |
| Robert Zare         | \$3,690.00         | \$0.00            | \$0.00        | \$3,690.00         |
| Anne Hellung-Larsen | \$1,575.25         | \$0.00            | \$0.00        | \$1,575.25         |
|                     | <b>\$18,975.25</b> | <b>\$1,788.50</b> | <b>\$0.00</b> | <b>\$20,763.75</b> |

Page 1 of 1

# Macro

The screenshot displays the Microsoft Access interface for creating a macro. The title bar shows "Northwind : Database (Access 2007) - Microsoft Access". The ribbon is set to "Macro Tools" with the "Design" tab selected. The ribbon includes the following groups and controls:

- Tools:** Run (with a warning icon), Single Step, Convert Macros to Visual Basic.
- Expand/Collapse:** Expand Actions, Collapse Actions, Expand All, Collapse All.
- Action Catalog:** Action Catalog (highlighted), Show All Actions, Show/Hide.

The main window shows the "Sales Analysis" database with the "AutoExec" macro selected. The macro editor displays the following code:

```
SetDisplayedCategories (Yes, Northwind Traders)
If Not [CurrentProject].[IsTrusted] Then
End If
If [CurrentProject].[IsTrusted] Then
End If
GoToRecord
  Object Type: [ ]
  Object Name: [ ]
  Record: Next
  Offset: [ ]
Add New Action [ ]
```

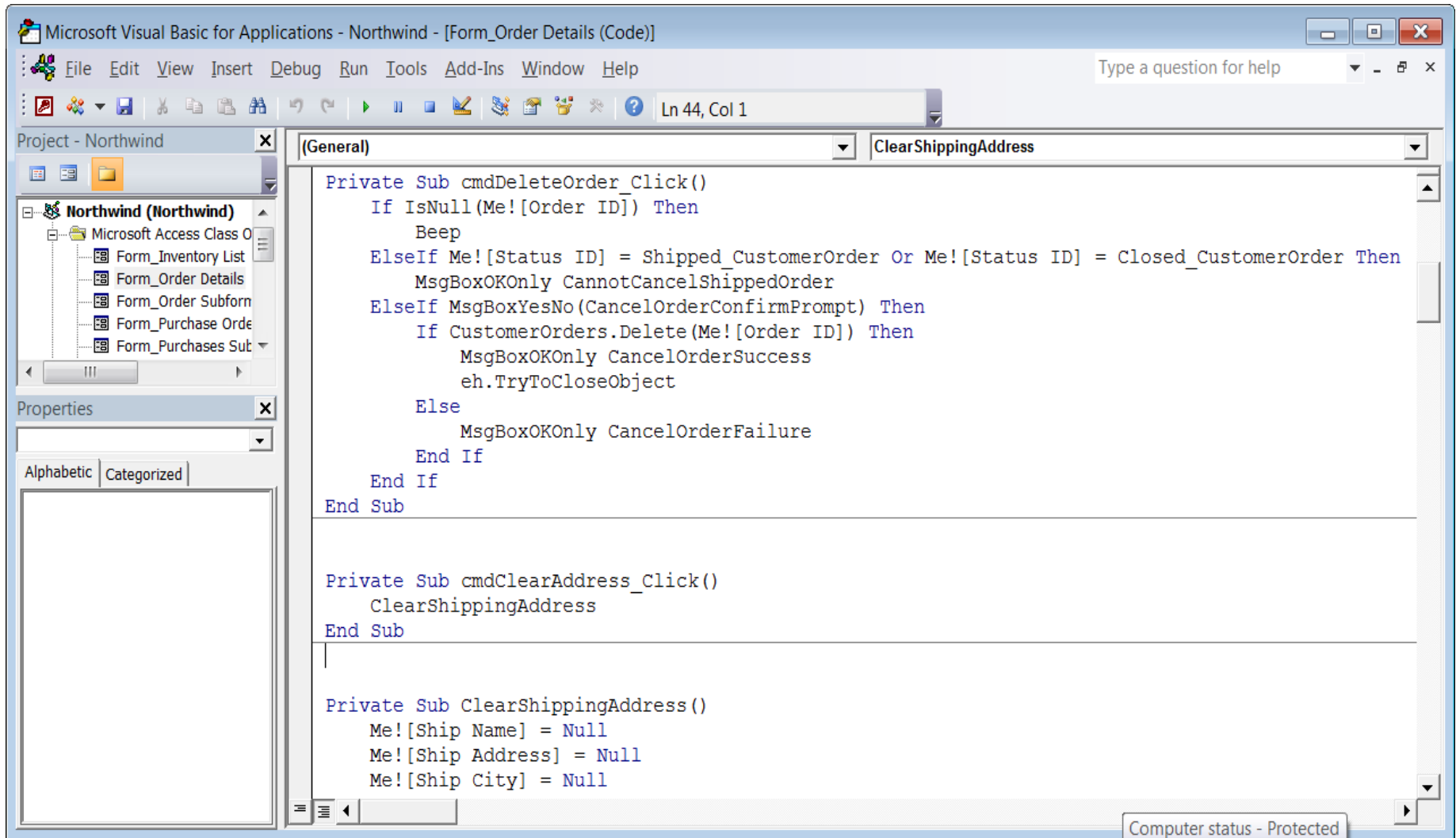
The "Action Catalog" window is open on the right, showing a tree view of macro actions:

- Program Flow
  - Comment
  - Group
  - If
  - Submacro
- Actions
  - Data Entry Operations
  - Data Import/Export
  - Database Objects
  - Filter/Query/Search
  - Macro Commands
  - System Commands
  - User Interface Commands

The "Submacro" section is expanded, showing the description: "Allows for a named collection of macro actions in the macro that can only be called by a RunMacro or OnError macro action."



# Module



The screenshot displays the Microsoft Visual Basic for Applications (VBA) editor window for a Northwind database project. The window title is "Microsoft Visual Basic for Applications - Northwind - [Form\_Order Details (Code)]". The menu bar includes File, Edit, View, Insert, Debug, Run, Tools, Add-Ins, Window, and Help. The status bar shows "Ln 44, Col 1".

The Project Explorer on the left shows the "Northwind (Northwind)" project with a tree view containing "Microsoft Access Class Objects" and several form objects: "Form\_Inventory List", "Form\_Order Details", "Form\_Order Subform", "Form\_Purchase Order", and "Form\_Purchases Subform". The Properties window is empty.

The main code editor shows the VBA code for the "ClearShippingAddress" module. The code is as follows:

```
Private Sub cmdDeleteOrder_Click()  
    If IsNull(Me![Order ID]) Then  
        Beep  
    ElseIf Me![Status ID] = Shipped_CustomerOrder Or Me![Status ID] = Closed_CustomerOrder Then  
        MsgBoxOKOnly CannotCancelShippedOrder  
    ElseIf MsgBoxYesNo(CancelOrderConfirmPrompt) Then  
        If CustomerOrders.Delete(Me![Order ID]) Then  
            MsgBoxOKOnly CancelOrderSuccess  
            eh.TryToCloseObject  
        Else  
            MsgBoxOKOnly CancelOrderFailure  
        End If  
    End If  
End Sub  
  
Private Sub cmdClearAddress_Click()  
    ClearShippingAddress  
End Sub  
  
Private Sub ClearShippingAddress()  
    Me![Ship Name] = Null  
    Me![Ship Address] = Null  
    Me![Ship City] = Null
```