

Microsoft Access 2003

Workbook - Intermediate Level



SAMPLE

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Installing the Sample Files

- Use Windows Explorer to create a folder called **Access 2003 Intermediate Samples**, in the **My Documents** folder.
- Copy the sample files for this course to the **My Documents\Access 2003 Intermediate Samples** folder.
- If these files have been copied to your network server, then ask your trainer/supervisor for more information about how to copy these files to your PC's hard disk.

SAMPLE

Using the Northwind Sample Database

Installing the Northwind Database

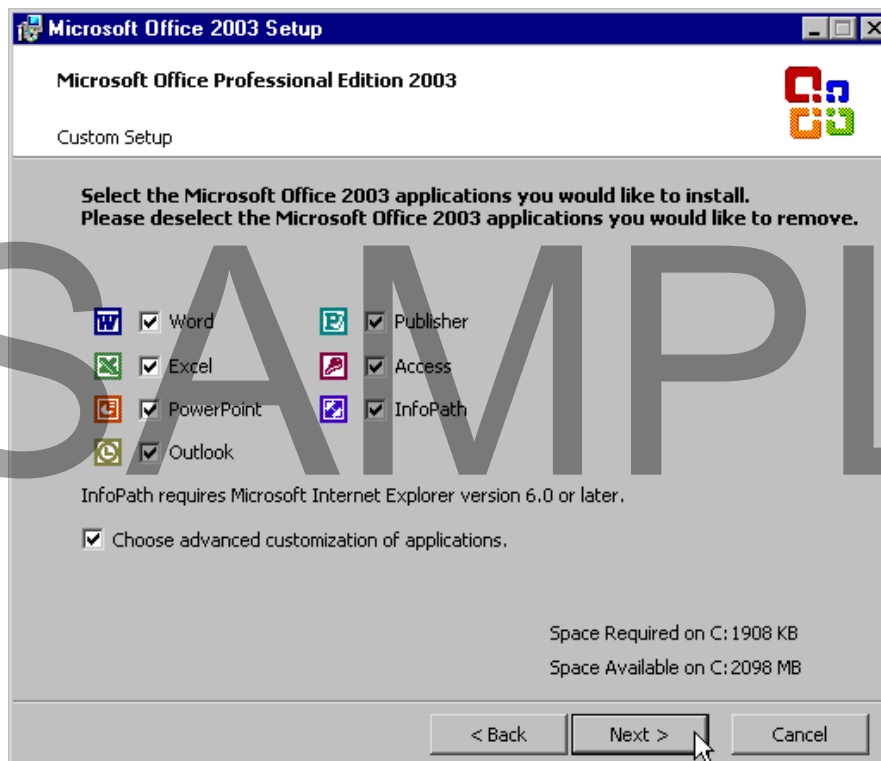
- Click the **File Search** button on the **database** toolbar:



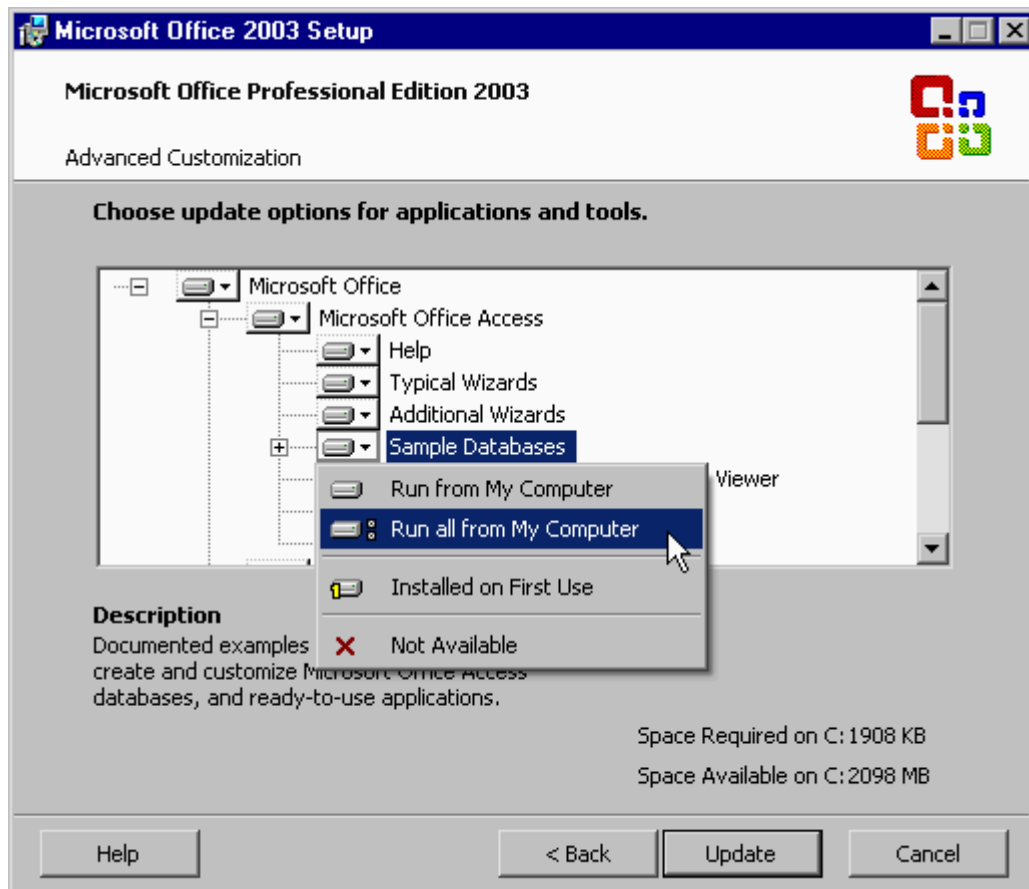
- In the **Search text** box of the **Basic File Search** task pane, type **Northwind**. In the **Search in** area of the task pane, choose **Everywhere** from the drop down menu.
- Click **Go**.
- If **Northwind.mdb** appears in the **Search Results**, double-click on the file to open it and proceed to the next chapter.
- If **Northwind** is not found in the **Search Results** it will need to be installed.
- Insert the Microsoft Office 2003 CD-ROM in the CD-ROM drive.
- Double-click **Setup**.

Note: If your computer has autorun enabled, you will be presented directly with the Microsoft Office 2003 setup screen.

- Select **Add or Remove Features**.
- Click **Next**.
- Make sure that the **Access** box is checked, and that the **Choose advanced customization of applications** checkbox is also selected. Click **Next**:



- Under **Choose update options for applications and tools**, select the **Microsoft Office Access** subtree.
- Under **Sample Databases**, select **Run all from My Computer**:



- Click **Update**.
- Once the installer completes, click **OK** to finish.
- Once the **Northwind** database is installed, search for it again and open it. Proceed to the next chapter.

SAMPLE

Designing Tables in Access 2003

Normalising Data

Understanding Primary Keys

- Open the Northwind database.
- Select the **Don't show this screen again** box, and click **OK** to close the Northwind splash screen:

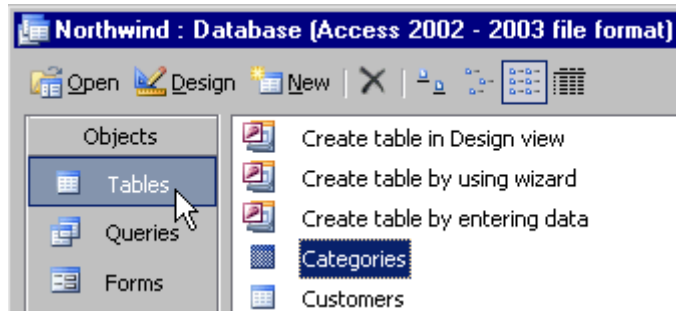


- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button:

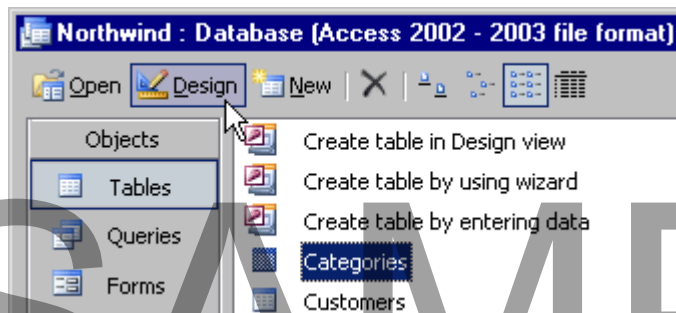
SAMPLE



- Click on **Tables** in the **Objects** pane:



- Select the **Categories** table, and click on the **Design** button to open the table in **Design** view:



- Observe the key symbol to the left of the **CategoryID** field, which signifies that the **CategoryID** field is set as the primary key. Note that no other fields are set as primary keys, as each table can have only one:

	Field Name	Data Type
🔑	CategoryID	AutoNumber
	CategoryName	Text
	Description	Memo
	Picture	OLE Object

- Close the table without saving the changes.

Setting Required Values in Columns

- Click on **Tables** in the **Objects** pane.
- Open the **Categories** table in **Design** view.
- Click within the **Picture** field to select it:

Field Name	Data Type	Description
CategoryID	AutoNumber	Number automatically assi
CategoryName	Text	Name of food category.
Description	Memo	
Picture	OLE Object	A picture representing the

- Find the **General** tab in the lower-left portion of the design window.
- In the **General** tab select the **Required** field.
- Choose **Yes** to make the field required:

The screenshot shows the Design view for the 'Categories' table. The 'General' tab is selected. The 'Required' property is set to 'Yes'. A dropdown menu is open, showing 'Yes' and 'No' options, with a mouse cursor pointing to 'Yes'.

- Close the table without saving the changes
- Close the Northwind database.

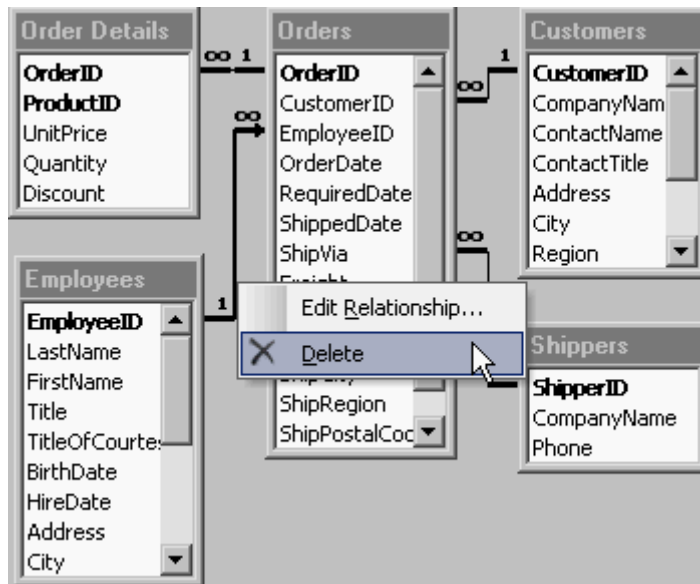
Establishing Relationships

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click the **Relationships** button on the **Database** toolbar

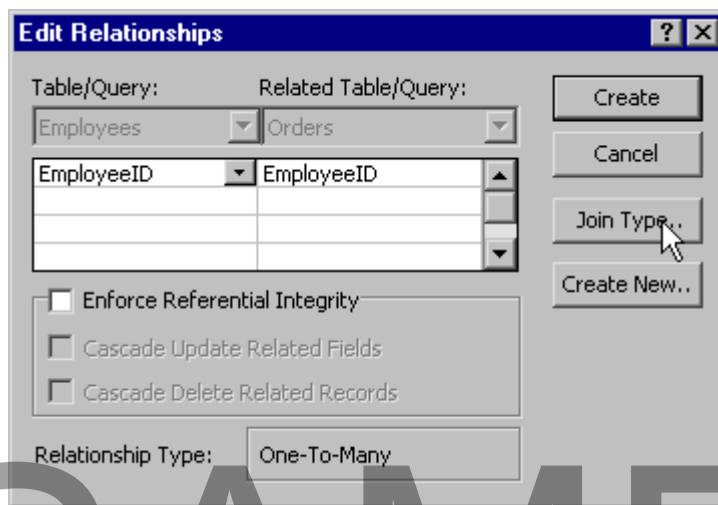


- Right-click on the **relationship** between the **Employees** and **Orders** tables.
- From the pop-up menu, select **Delete**:

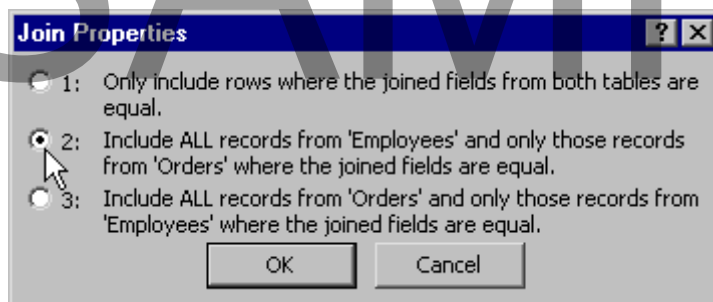
SAMPLE



- Click the **Yes** button when prompted to delete the relationship.
- To re-create the relationship between the **Employees** and **Orders** tables, drag the **EmployeeID** field from the **Employees** table to the **EmployeeID** field in the **Orders** table.
- Click **Join Type** in the **Edit Relationships** dialog box:

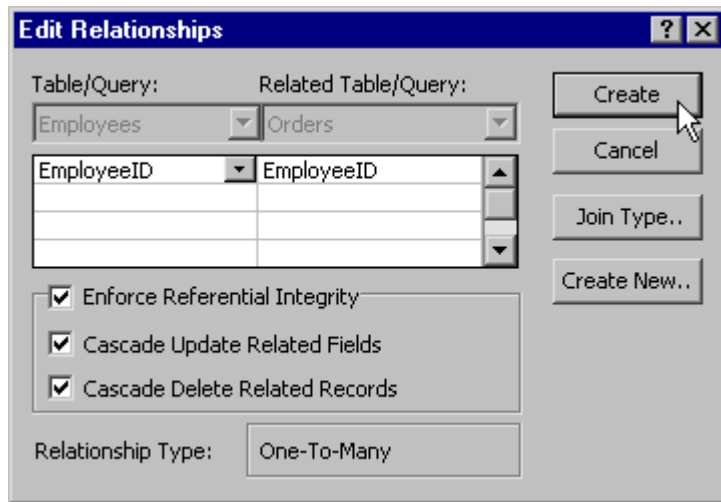


- Select the option button labelled 2:



- Click **OK**.

- Check the **Enforce Referential Integrity** box.
- Check the **Cascade Update Related Fields** box.
- Check the **Cascade Delete Related Fields** box:



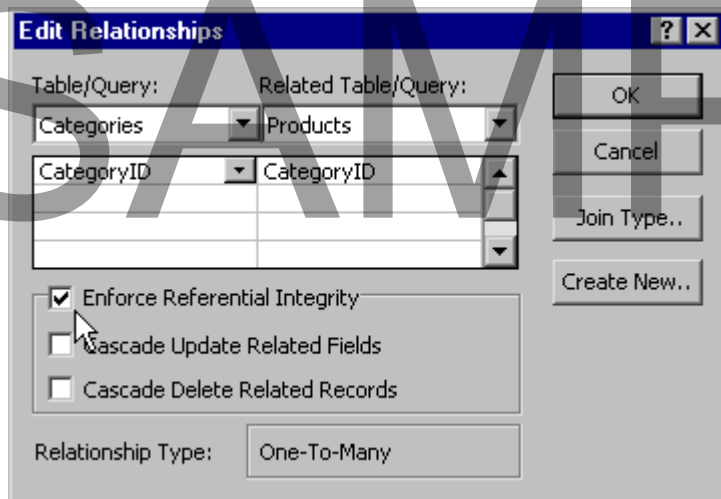
- Click **Create**.
- Click the **Save** button.
- Close the **Relationships** window.

Enforcing Referential Integrity

- Click the **Relationships** button on the **Database** toolbar:



- Right-click on the **relationship** between the **Categories** and **Products** tables.
- From the pop-up menu, select **Edit Relationship**. This opens the **Edit Relationships** dialog box.
- Check the **Enforce Referential Integrity** box, if it is not already selected:



- Click **OK**.
- Close the **Relationships** window.
- Close the Northwind database.

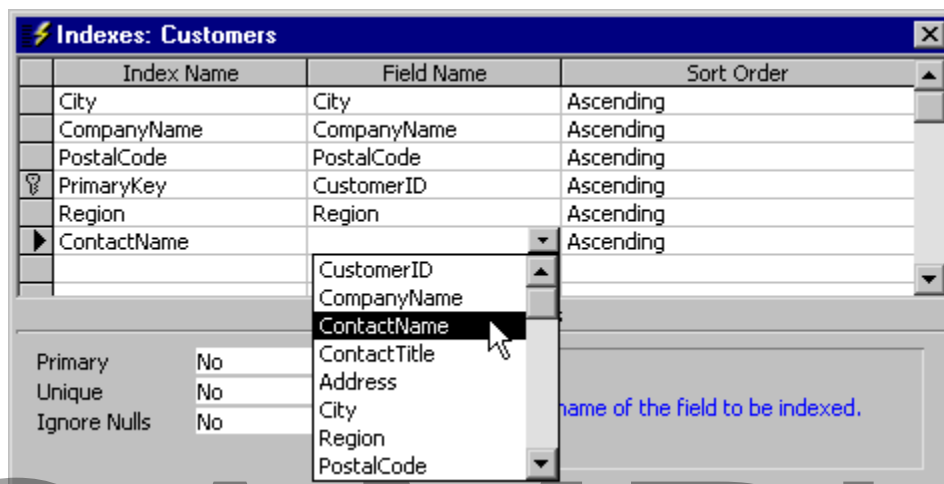
Working with Indexes

Creating a Single-Field Index

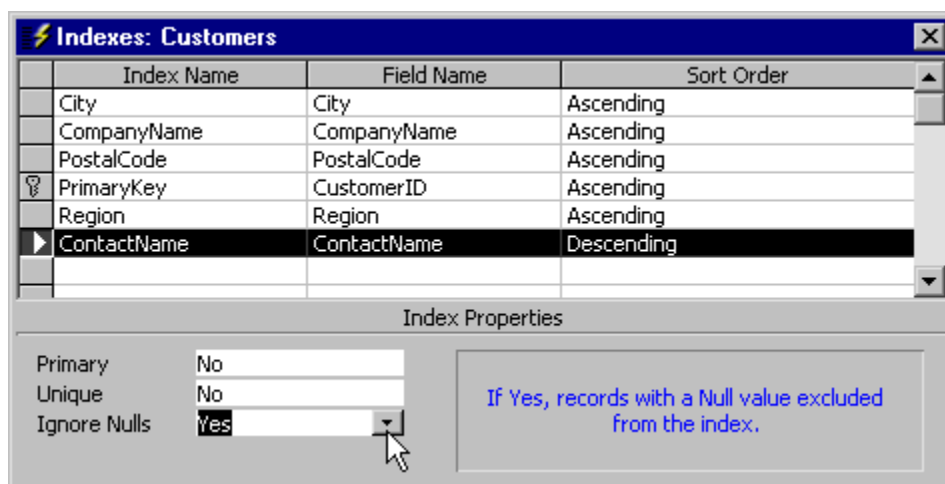
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Click the **Indexes** button on the **Table Design** toolbar:



- Type **ContactName** in the **Index Name** column.
- Select **ContactName** from the drop-down menu in the **Field Name** column:



- Select **Descending** from the drop-down menu in the **Sort Order** column.
- Select **Yes** from the **Ignore Nulls** drop-down menu in the **Index Properties** area:



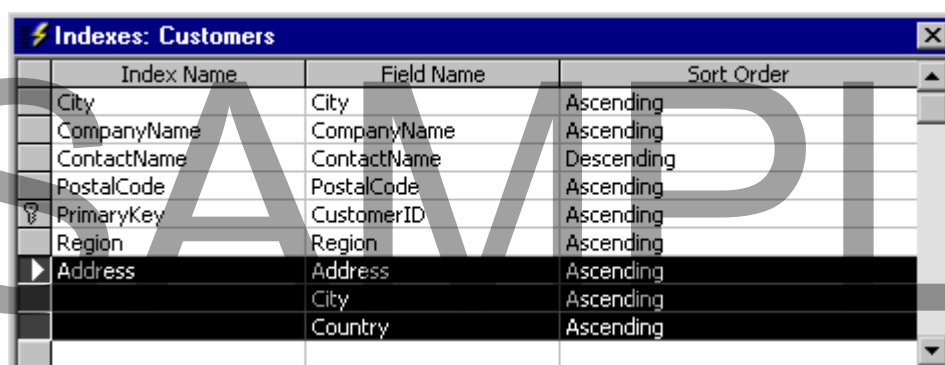
- Click the **Close** button on the **Indexes** title bar.
- Click the **Save** button.
- Close the table.

Creating a Multiple-Field Index

- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Click the **Indexes** button on the **Table Design** toolbar

OR from the main menu, select **View > Indexes**.

- This opens the **Indexes** design grid.
- Type **Address** in the **Index Name** column.
- Select **Address** from the drop-down menu in the **Field Name** column.
- Click on the next row in the **Field Name** column, and choose **City**.
- Click on the next row in the **Field Name** column, and choose **Country**:



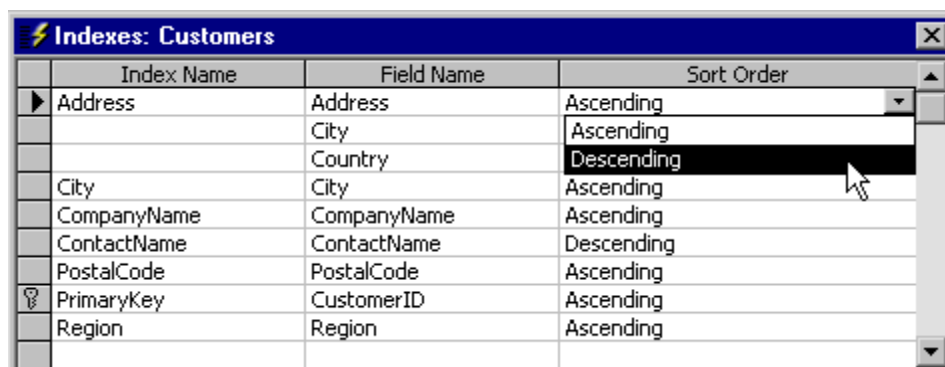
- Click the **Close** button on the **Indexes** title bar.
- Click the **Save** button.
- Close the table.

Setting the Index Sort Order

- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Click the **Indexes** button on the **Table Design** toolbar

OR from the main menu, select **View > Indexes**.

- This opens the **Indexes** design grid. Select the **Address** index, and click the drop-down menu in the **Sort Order** column on the first row, as illustrated. Select **Descending** to change the sort order:



Index Name	Field Name	Sort Order
Address	Address	Ascending
	City	Ascending
	Country	Descending
City	City	Ascending
CompanyName	CompanyName	Ascending
ContactName	ContactName	Descending
PostalCode	PostalCode	Ascending
PrimaryKey	CustomerID	Ascending
Region	Region	Ascending

- Click the **Close** button on the **Indexes** title bar.
- Click the **Save** button.
- Close the table.

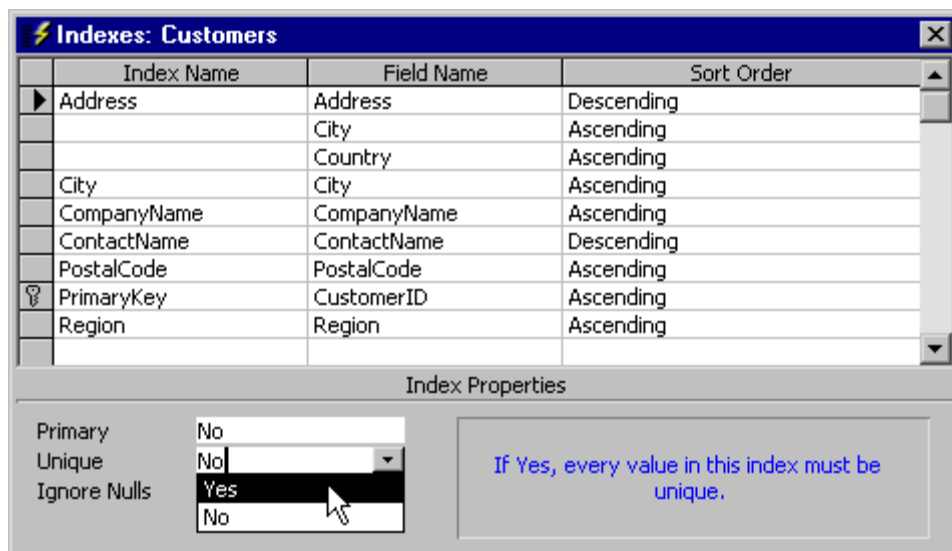
Setting Index Properties

- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Click the **Indexes** button on the **Table Design** toolbar

OR from the main menu, select **View > Indexes**.

- This opens the **Indexes** design grid.
- Select the **Address** index.
- Select **Yes** from the **Unique** property drop-down menu in the **Index Properties** section.

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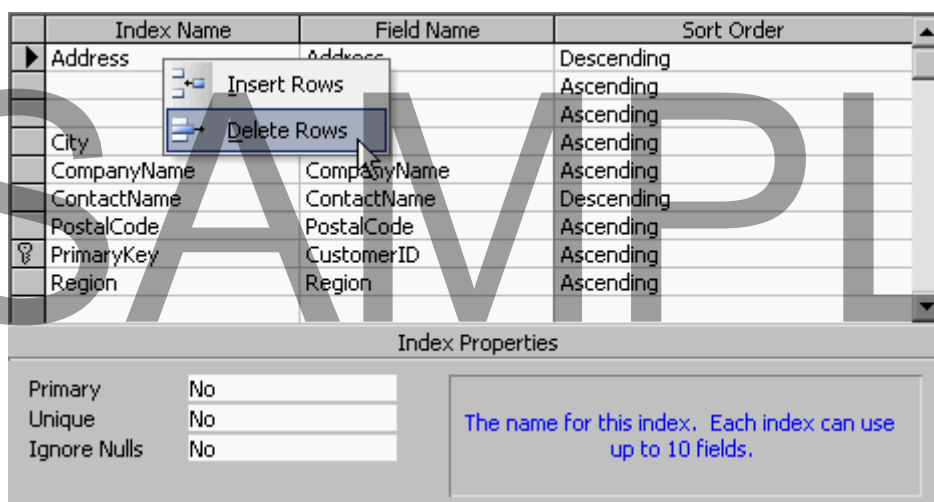
- Now change the **Unique** property back to **No**.
- Click the **Close** button on the **Indexes** title bar.
- Close the table without saving the changes.

Deleting Indexes

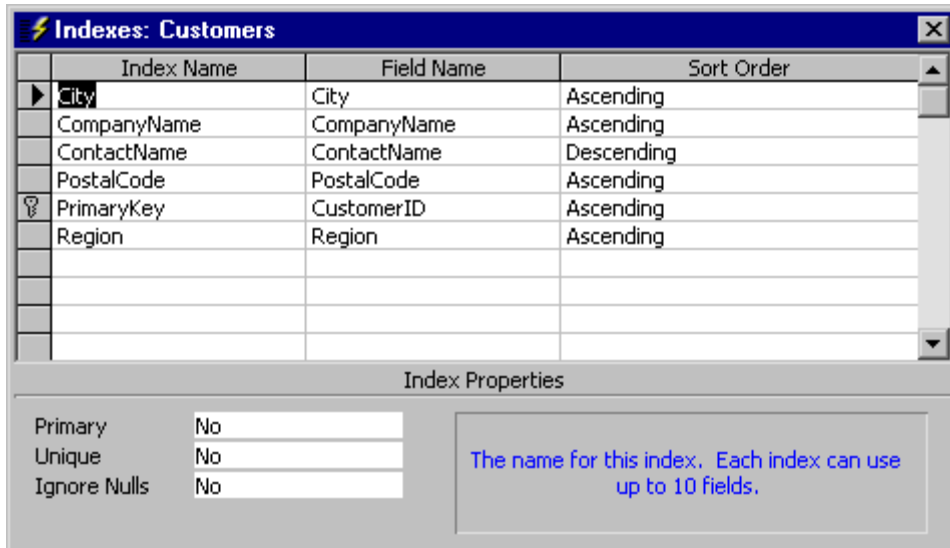
- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Click the **Indexes** button on the **Table Design** toolbar

OR from the main menu, select **View > Indexes**.

- This opens the **Indexes** design grid.
- Right-click on the **Address** index.
- From the pop-up menu, select **Delete Rows**:



- Repeat the steps to delete the other 2 remaining **Address** index rows. Your **Indexes** design grid should resemble the following:



- Click the **Close** button on the **Indexes** title bar.
- Click the **Save** button.
- Close the table.
- Close the Northwind database.

Working with Data Types

Setting and Formatting Column Data Types

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Type a new field named **CompanySlogan** in the **Field Name** column:

	Field Name	Data Type
PK	CustomerID	Text
	CompanyName	Text
	ContactName	Text
	ContactTitle	Text
	Address	Text
	City	Text
	Region	Text
	PostalCode	Text
	Country	Text
	Phone	Text
	Fax	Text
	CompanySlogan	

- Select **Text** from the **Data Type** drop-down menu.
- In the **Field Properties** area, set the **Field Size** to 100:

Property	Value
Field Size	100
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

- Click the **Save** button.
- Close the table.

Converting Between Data Types

- Click on **Tables** in the **Objects** pane.
- Open the **Customers** table in **Design** view.
- Select the **CompanySlogan** in the **Field Name** column.
- Select **Memo** from the **Data Type** drop-down menu:

Field Name	Data Type	Description
Fax	Text	Phone number includes co
CompanySlogan	Memo	

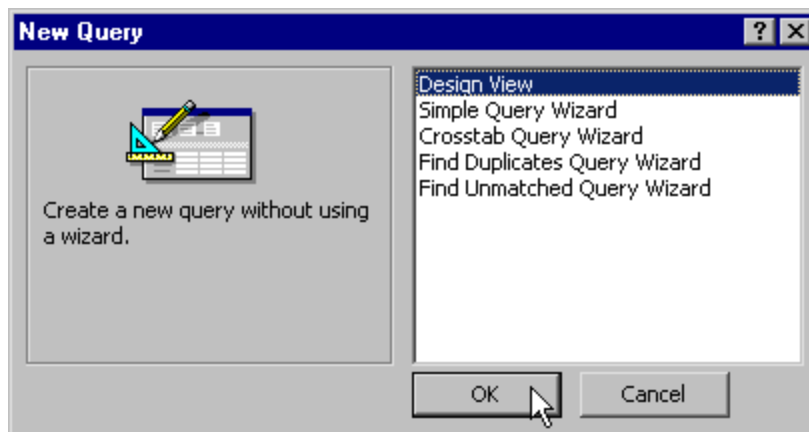
- Close the table without saving the changes.
- Close the Northwind database.

SAMPLE

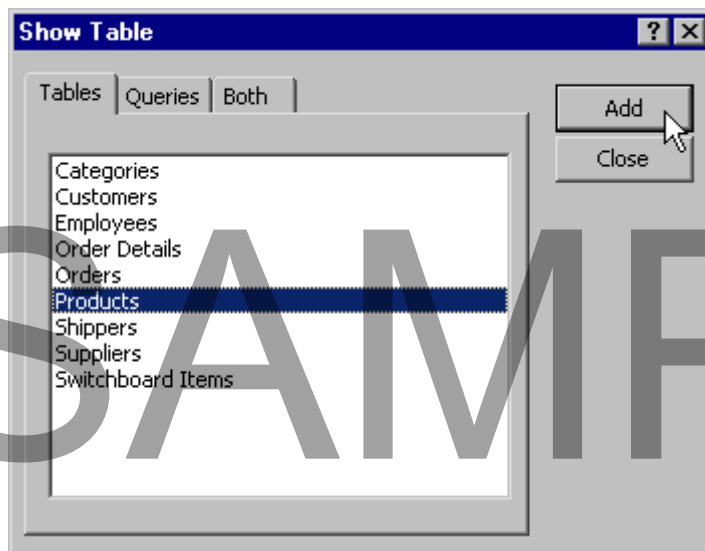
Designing Queries in Access 2003

Creating Action Queries

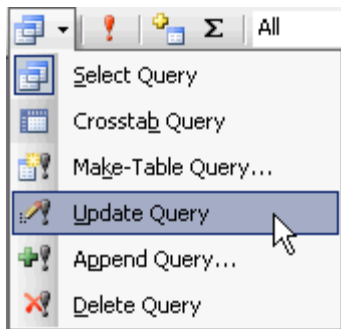
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click on **Queries** in the **Objects** pane.
- Click the **New** button to open the **New Query** dialog box.
- Select **Design View**.
- Click **OK**:



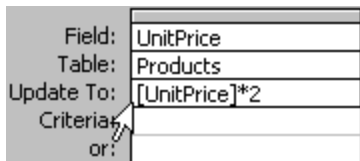
- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**:



- Click **Close**.
- Click on the **Query Type** drop-down menu on the **Query Design** toolbar.
- Select **Update Query**:



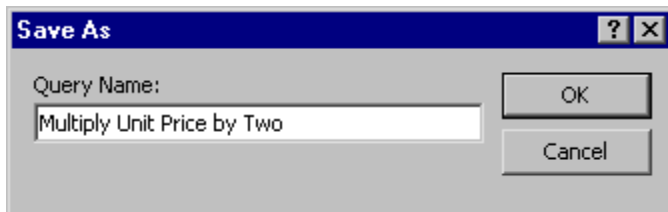
- Select **UnitPrice** from the **Field** drop-down menu.
- Select the **Update To** section of the query grid and type **[UnitPrice]*2**:



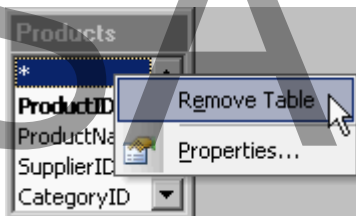
- Click the **Run** button on the **Query Design** toolbar to execute the update:



- Click **Yes** to apply the changes.
- Click the **Save** button. Enter **Multiply Unit Price by Two** as the query name:



- Click **OK**.
- Right-click on the **Products** table in the query window.
- From the pop-up menu, select **Remove Table**:

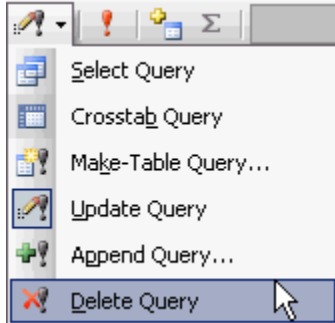


- Click the **Show Table** button on the **Query Design** toolbar:



- Select **Orders** from the **Tables** tab in the **Show Table** dialog box.

- Click **Add**.
- Click **Close**
- Click the **Query Type** drop-down menu on the **Query Design** toolbar.
- Select **Delete Query**:



- Select **OrderID** from the **Field** drop-down menu.
- Type **10249** in the **Criteria** section of the query grid:

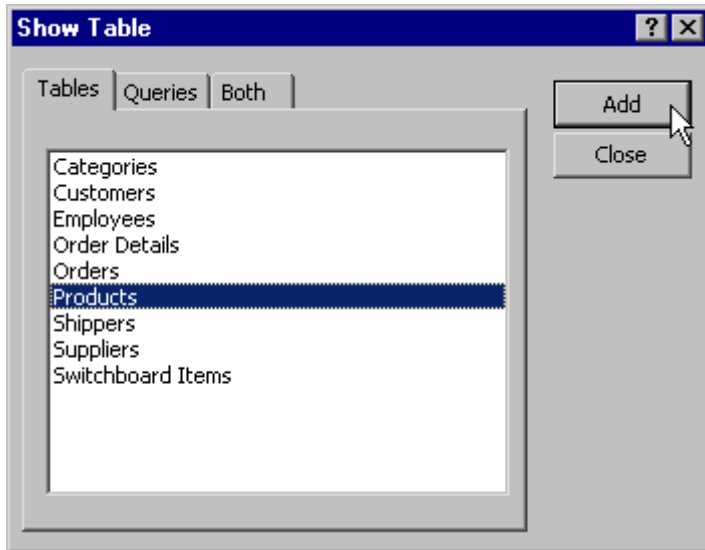
Field:	OrderID
Table:	Orders
Delete:	Where
Criteria:	10249
or:	

- Click the **Run** button on the **Query Design** toolbar to execute the delete.
- Click **Yes** to apply the changes.
- From the main menu, select **File > Save As**.
- Type **Delete OrderID 10249**.
- Click **OK**.
- Close the query window.
- Close the Northwind database.

Creating Parameter Queries

Creating a One-Parameter Query

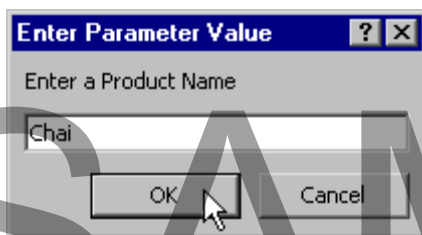
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click on **Queries** in the **Objects** pane.
- Click the **New** button to open the **New Query** dialog box.
- Select **Design View**.
- Click **OK**.
- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**:



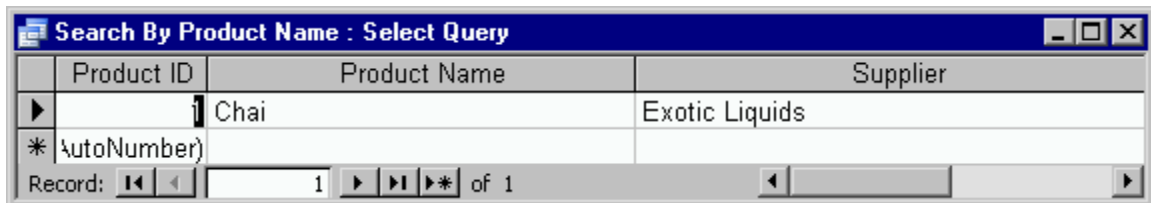
- Click **Close**.
- Select **ProductID**, **ProductName**, and **SupplierID** from the **Field** drop-down menus.
- In the **Criteria** text box under **ProductName**, type *[Enter a Product Name]*:

Field:	ProductID	ProductName	SupplierID
Table:	Products	Products	Products
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		[Enter a Product Name]	
or:			

- Click the **Run** button on the **Query Design** toolbar to execute the query.
- Type **Chai**.
- Click **OK**:



- View the result:



- Click the **Save** button. Save the query as *Search By Product Name*.
- Click **OK**.

- Close the query.

Creating a Two-Parameter Query

- Click **Queries** in the **Objects** pane.
- Click the **New** button. This opens the **New Query** dialog box.
- Select Design View.
- Click **OK**.
- Select **Orders** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**.
- Click **Close**. A representation of the table appears in the query grid.
- Select **ShippedDate** and **OrderId** from the **Field** drop-down menus.
- Type *Between [Beginning Date] and [Ending Date]* in the Criteria text box in the ShippedDate column:

Field:	ShippedDate	
Table:	Orders	
Sort:		
Show:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:	Between [Beginning Date] And [Ending Date]	
or:		

- Click the **Run** button on the **Query Design** toolbar to execute the query. This opens the first **Enter Parameter Value** dialog box.
- Input 01/01/97.
- Click **OK**:

Enter Parameter Value

Beginning date

01/01/97

OK Cancel

- This opens the second **Enter Parameter Value** dialog box.
- Input 01/01/98.
- Click **OK**:

Enter Parameter Value

Ending Date

01/01/98

OK Cancel

- The results of the query are displayed:

Shipped Date	Order ID
01-Jan-1997	10392
02-Jan-1997	10397
03-Jan-1997	10393
03-Jan-1997	10394
03-Jan-1997	10395
06-Jan-1997	10396
08-Jan-1997	10399
08-Jan-1997	10404
09-Jan-1997	10398
09-Jan-1997	10403
10-Jan-1997	10401

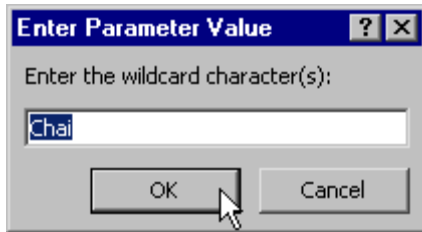
- **Close** the query results window without saving the changes.

Using Wildcards as Parameters

- Click **Queries** in the **Objects** pane.
- Click the **New** button. This opens the **New Query** dialog box.
- Select Design View.
- Click **OK**.
- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**.
- Click **Close**. A representation of the table appears in the query grid.
- Select a **ProductName**, **SupplierID**, and **CategoryID** from the **Field** drop-down menus.
- Type *Like [Enter the wildcard character(s):] & "*"* in the Criteria text box of the ProductName field:

Field:	ProductName	SupplierID	CategoryID
Table:	Products	Products	Products
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	Like [Enter the wildcard character(s):] & "*" & ""		
or:			

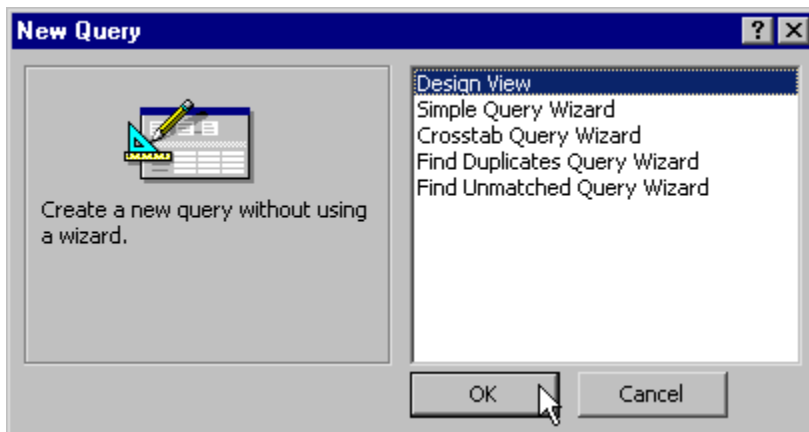
- Click the **Run** button on the **Query Design** toolbar to execute the query. This opens **Enter Parameter Value** dialog box.
- Input **Chai**.
- Click **OK**:



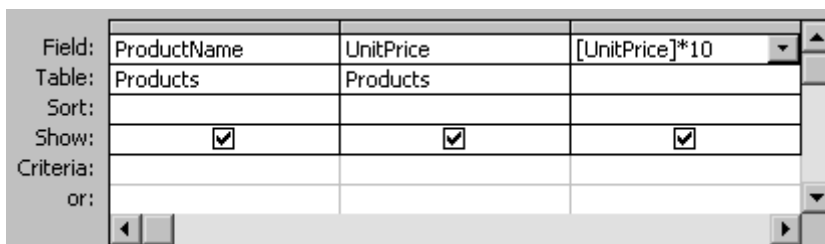
- The results of the query are displayed.
- **Close** the query results window without saving the changes.
- Close the Northwind database.

Creating Calculated Columns in Queries

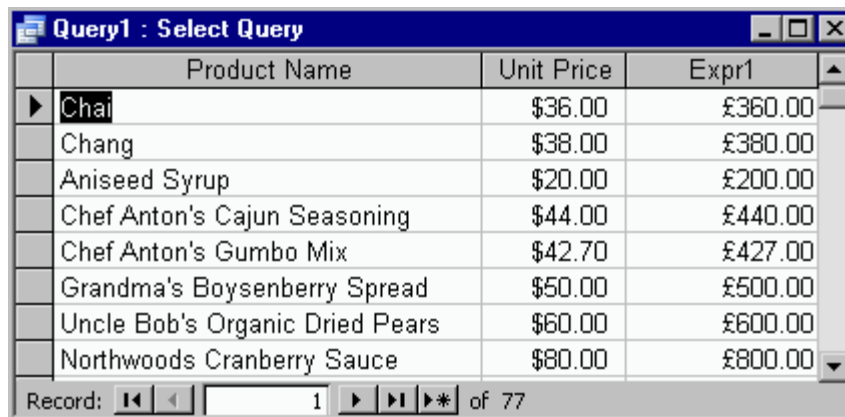
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Queries** in the **Objects** pane.
- Click the **New** button to open the **New Query** dialog box.
- Select **Design View**.
- Click **OK**:



- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**.
- Click **Close**.
- Select **ProductName** and **UnitPrice** from the **Field** drop-down menu.
- In the next field type **[UnitPrice]*10**:



- Click the **Run** button on the **Query Design** toolbar to execute the query:



Product Name	Unit Price	Expr1
Chai	\$36.00	£360.00
Chang	\$38.00	£380.00
Aniseed Syrup	\$20.00	£200.00
Chef Anton's Cajun Seasoning	\$44.00	£440.00
Chef Anton's Gumbo Mix	\$42.70	£427.00
Grandma's Boysenberry Spread	\$50.00	£500.00
Uncle Bob's Organic Dried Pears	\$60.00	£600.00
Northwoods Cranberry Sauce	\$80.00	£800.00

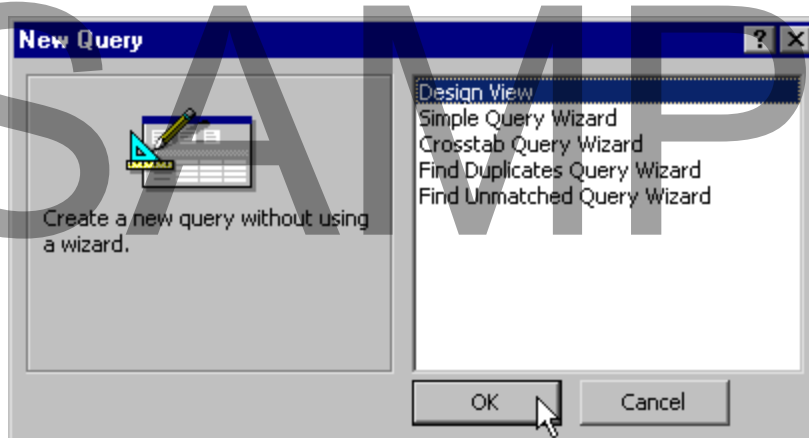
Note: Access automatically displays the calculated column as **Expr1**.

- Click the **Save** button. Save the query as **UnitPrice * 10**.
- Click **OK**.
- Close the query.
- Close the Northwind database.

Joining Tables

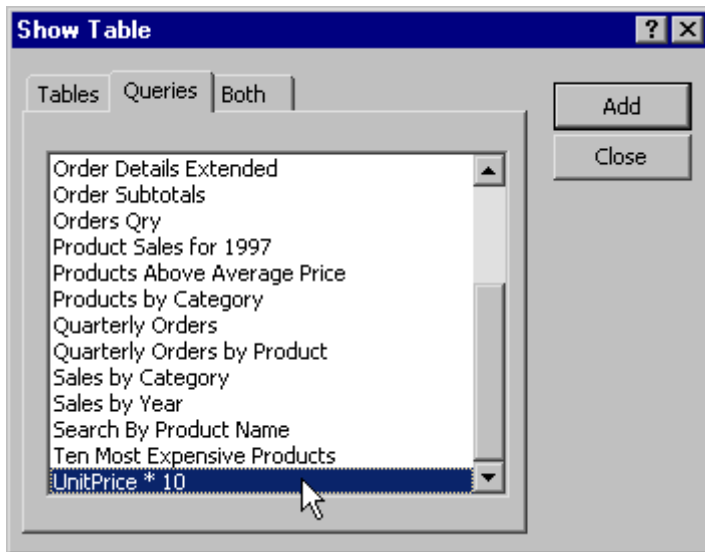
Creating a Two-Table Join

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Queries** in the **Objects** pane.
- Click the **New** button to open the **New Query** dialog box.
- Select **Design View**.
- Click **OK**:

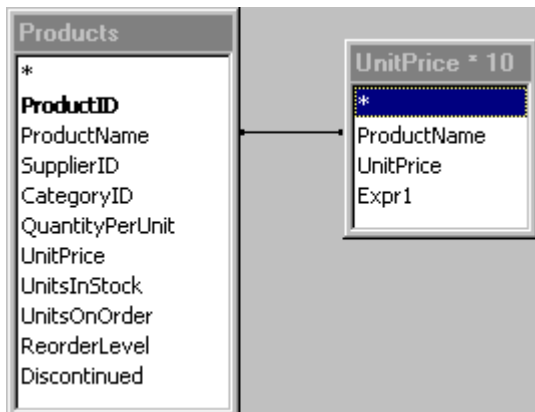


- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**.

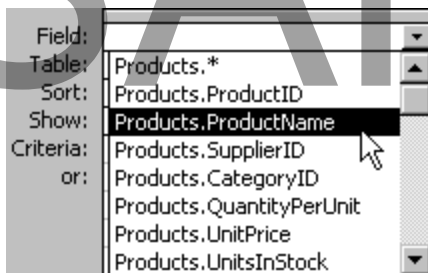
- Select **Unit Price * 10** from the **Queries** tab in the **Show Table** dialog box:



- Click **Add**.
- Click **Close**.
- Create a join between the tables by dragging and dropping the **ProductName** field from the **Products** table to the **ProductName** field in the **Unit Price * 10** query:



- For the first field, select **Products.ProductName** from the **Field** drop-down menu:



- For the second field, select **Products.QuantityPerUnit** from the **Field** drop-down menu:

- For the third field, select **UnitPrice * 10.Expr1** from the **Field** drop-down menu:

Field:	ProductName	QuantityPerUnit	Expr1
Table:	Products	Products	UnitPrice * 10
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			
or:			

- Click the **Run** button on the **Query Design** toolbar to execute the query.
- View the results:

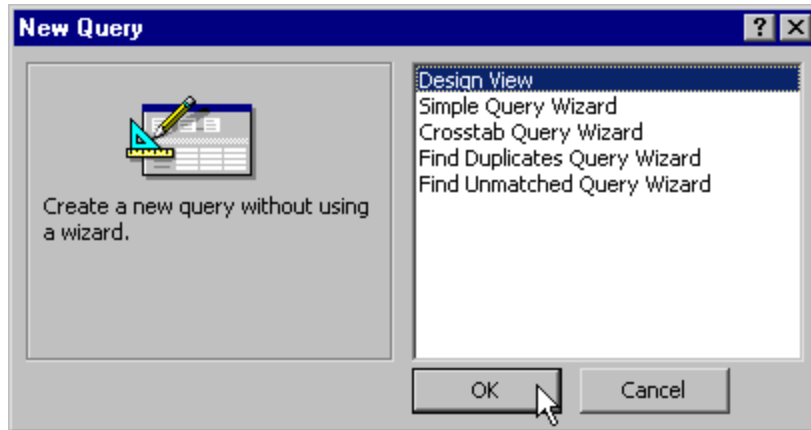
Product Name	Quantity Per Unit	Expr1
Alice Mutton	20 - 1 kg tins	£780.00
Aniseed Syrup	12 - 550 ml bottles	£200.00
Boston Crab Meat	24 - 4 oz tins	£368.00
Camembert Pierrot	15 - 300 g rounds	£680.00
Carnarvon Tigers	16 kg pkg.	£1,250.00
Chai	10 boxes x 20 bags	£360.00
Chang	24 - 12 oz bottles	£380.00
Chartreuse verte	750 cc per bottle	£360.00
Chef Anton's Cajun Seasoning	48 - 6 oz jars	£440.00
Chef Anton's Gumbo Mix	36 boxes	£427.00
Chocolade	10 pkgs.	£255.00
Côte de Blaye	12 - 75 cl bottles	£5,270.00
Escargots de Bourgogne	24 pieces	£265.00

Record: 1 of 77

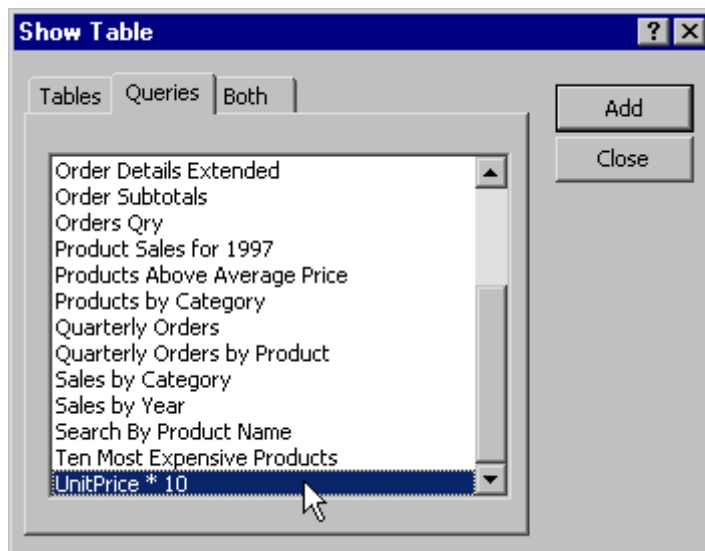
- Click the **Save** button. Save the query as **Join Product and Price * 10**.
- Click **OK**.
- Close the query window.

Removing Tables from the Query Builder

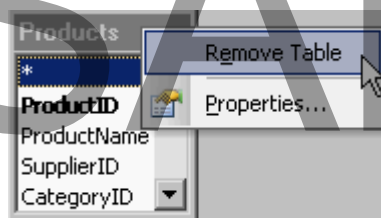
- Click **Queries** in the **Objects** pane.
- Click the **New** button to open the **New Query** dialog box.
- Select **Design View**.
- Click **OK**:



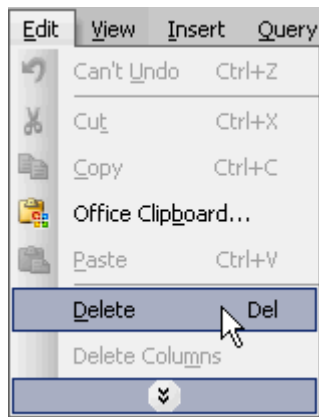
- Select **Products** from the **Tables** tab in the **Show Table** dialog box.
- Click **Add**.
- Select **Unit Price * 10** from the **Queries** tab in the **Show Table** dialog box:



- Click **Add**.
- Click **Close**.
- Right-click on the **Products** table.
- From the pop-up menu, select **Remove Table**:



OR from the main menu, select **Edit > Delete**:



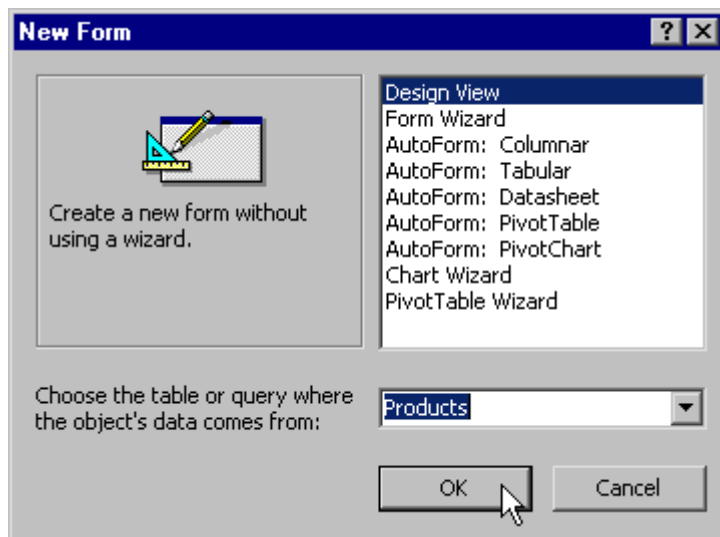
- Close the query window without saving the changes.
- Close the Northwind database.

SAMPLE

Designing Forms in Access 2003

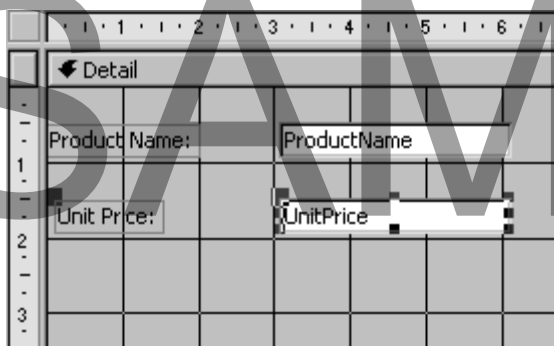
Creating Data Entry Forms

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Forms** in the **Objects** pane.
- Click the **New** button.
- Select **Design View**.
- Select **Products** from the drop-down menu.
- Click **OK**:

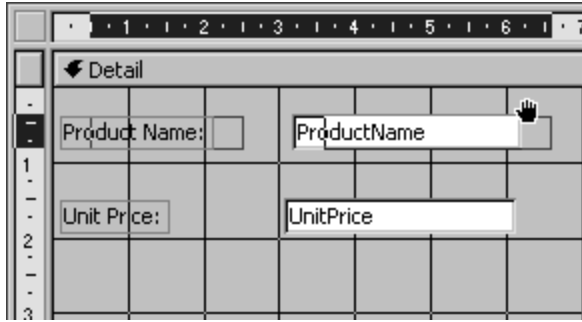


Note: Close the **Form** properties dialog box if it appears.

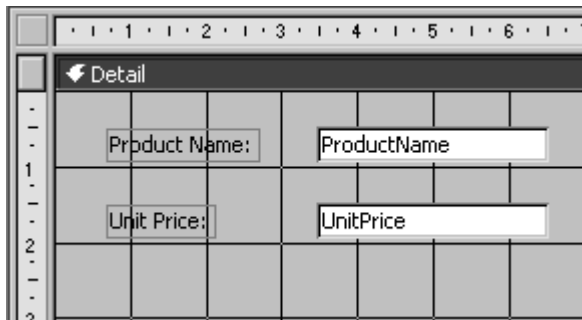
- Drag and drop the **ProductName** and **UnitPrice** fields from the **Products** data source to the **Detail** area of the **form**:



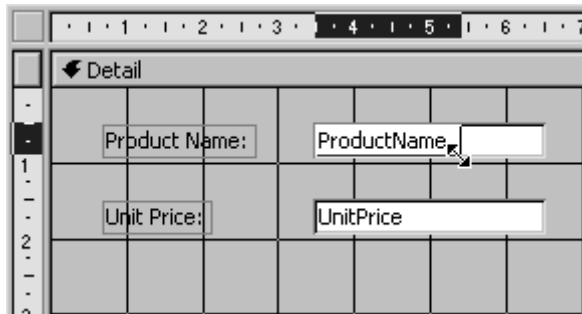
- Select the **ProductName** control by clicking on it.
- Place the cursor over the control until the cursor changes to a hand.
- Click and drag the control slightly to the right:



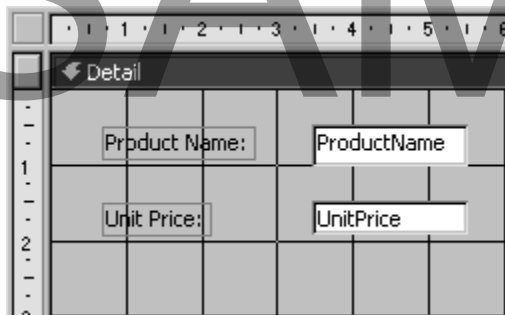
- Repeat the above instructions to move the **UnitPrice** control so that it is aligned with the **ProductName** control:



- Select the **ProductName** control by clicking on it.
- Place the cursor over the **control** until the cursor changes to a double arrow.
- Click and drag the control to a smaller size, as illustrated:

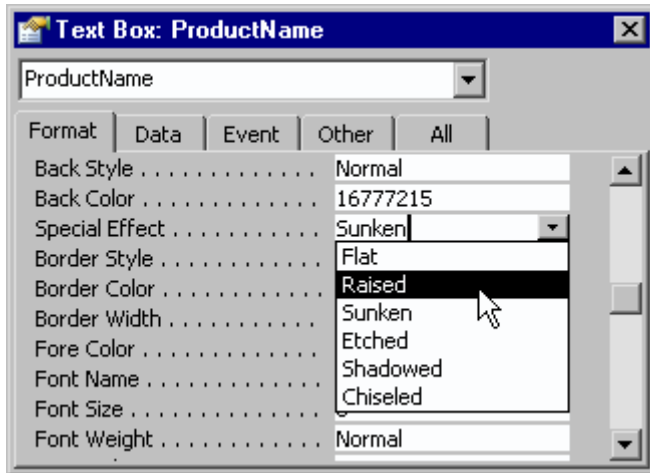


- Repeat the above instructions to move the **UnitPrice** control so that it is the same size as the **ProductName** control:

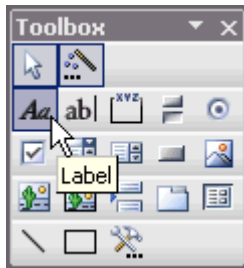


- Right-click on the **ProductName** control.

- From the pop-up menu, select **Properties**.
- Select the **Format** tab.
- From the **Special Effect** drop down-menu, select **Raised**:



- Close the dialog box.
- Right-click in the **Detail** area of the form.
- From the pop-up menu, select **Page Header/Footer**.
- Click the **Label** control on the **Toolbox** toolbar:



Note: From the main menu, select **View > Toolbox** if the **Toolbox** toolbar is not open.

- Place the **Label** control on the **page footer** section of the form:

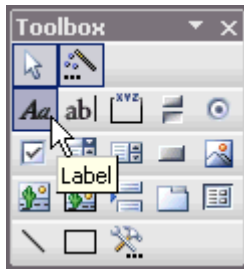


- Type **Product Entry Form**:



- Right-click in the **Detail** area of the form.
- From the pop-up menu, select **Form Header/Footer**. This opens the **Form Header** and **Form Footer** panes.

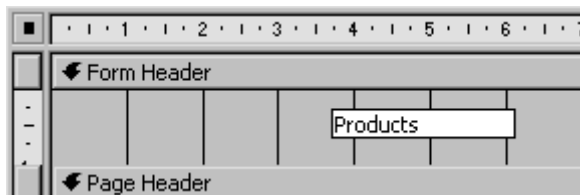
- Click the **Label** control on the **Toolbox** toolbar:



- Place the **Label** control on the **form header** section of the form:



- Type **Products**:

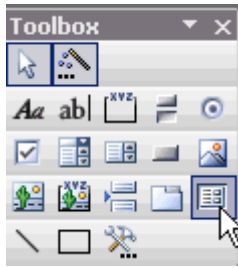


- Click the **Save** button. Save the form as **Product Entry Form**.
- Click **OK**.
- Close the form.
- Close the Northwind database.

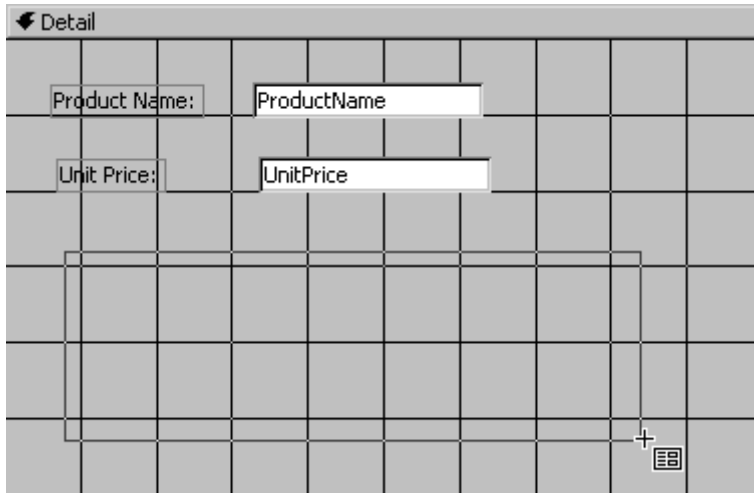
Working with Subforms

Creating a Subform

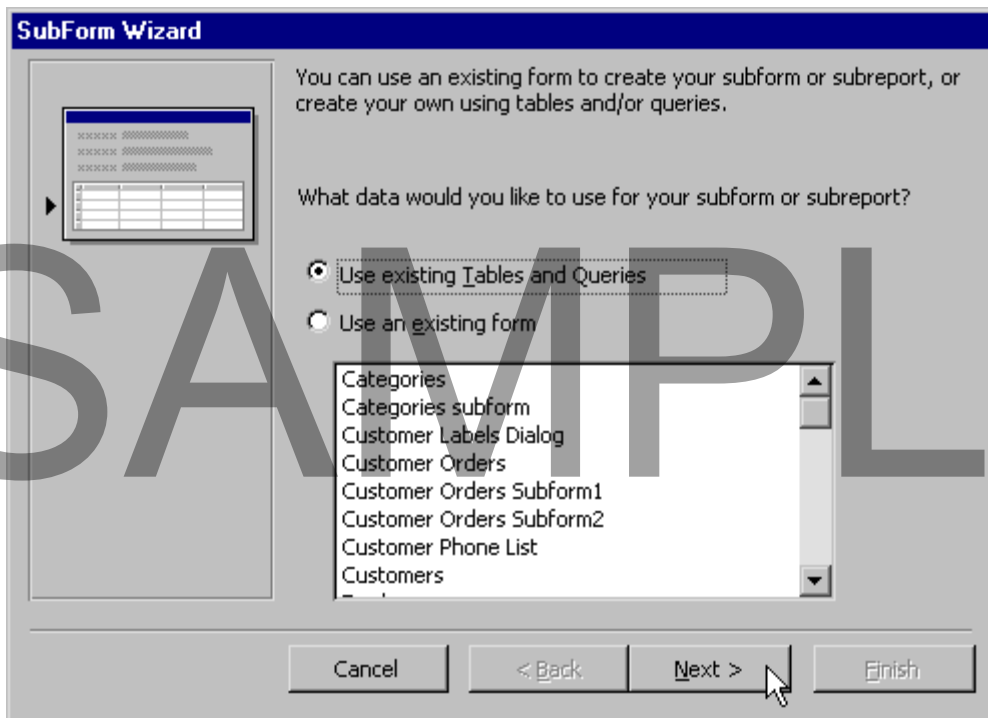
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Forms** in the **Objects** pane.
- Open **Product Entry Form** in Design view.
- Click the **Subform/Subreport** button on the **Toolbox** toolbar:



- Create a **subform** in the **Detail** area of the form:

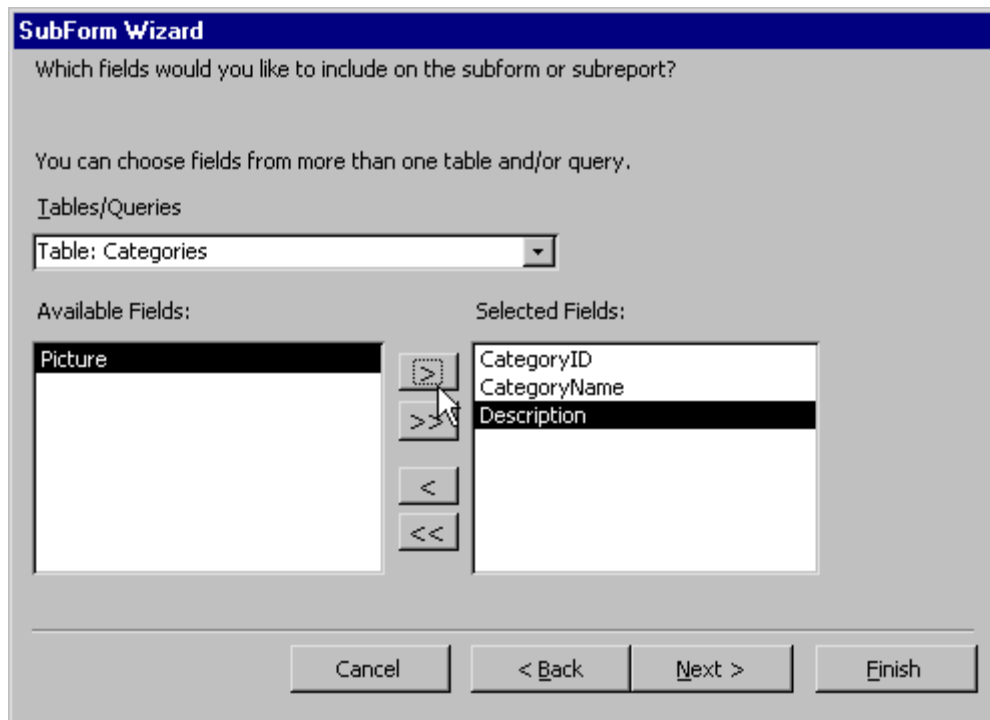


- This will open the **SubForm Wizard** dialog box.
- Select the **Use existing Tables and Queries** option button.
- Click **Next**:

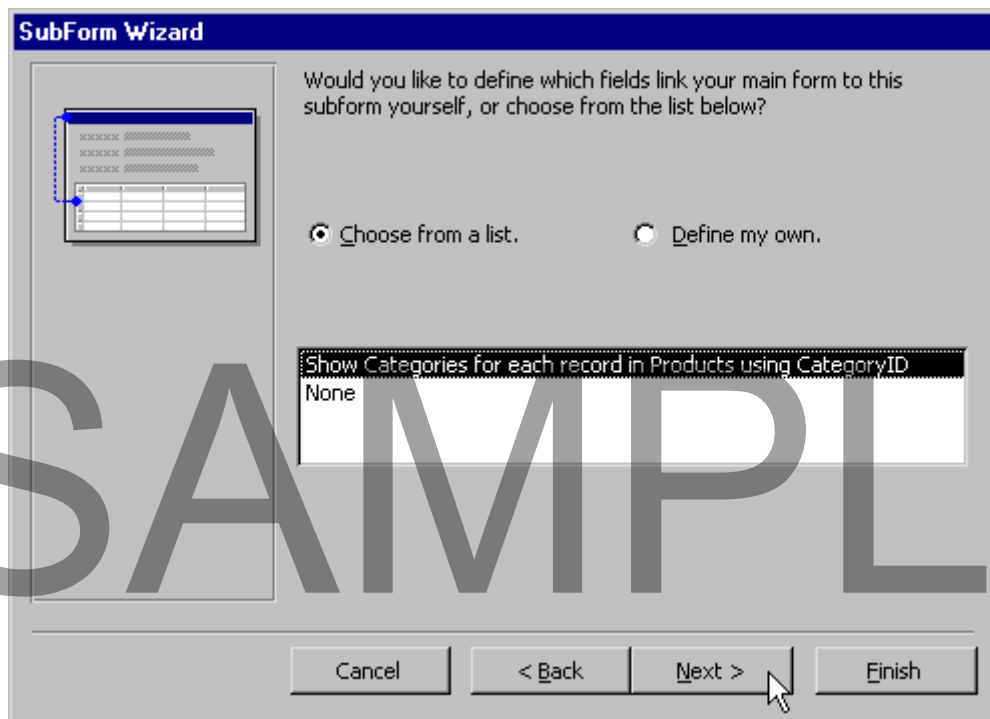


- Select **Table: Categories** from the **Tables/Queries** drop-down menu.

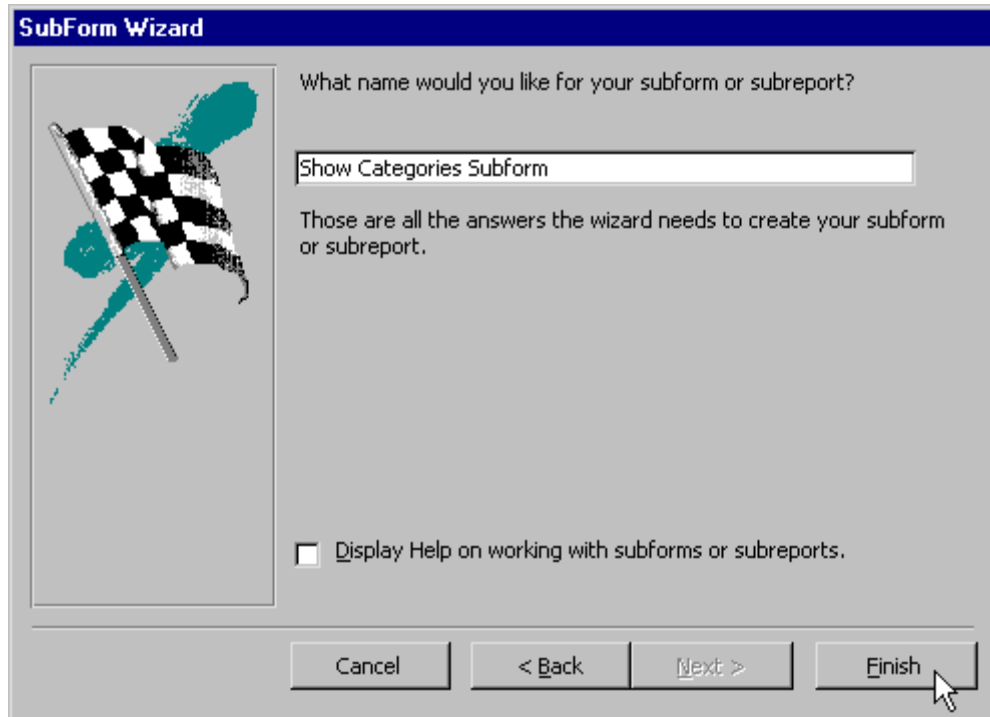
- Add the **CategoryID**, **CategoryName** and **Description** fields:



- Click **Next**.
- Select the **Choose from a list** option button:



- Click **Next**.
- Type **Show Categories Subform** as the name of the subform.
- Click **Finish**:

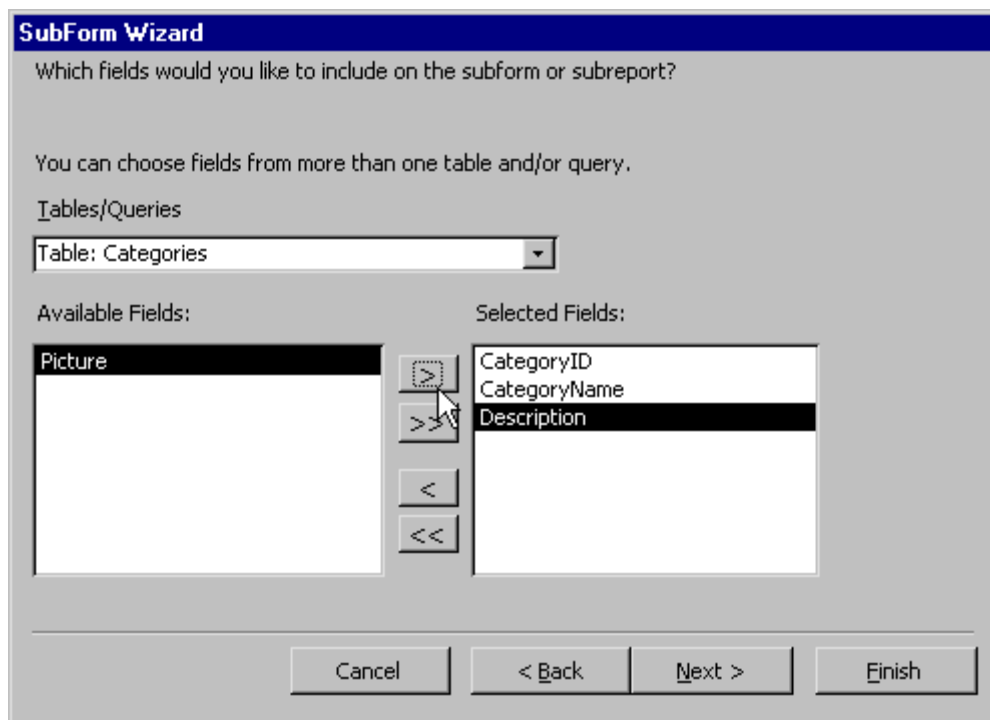


- Save the changes to the **Product Entry Form**.
- Close the form.

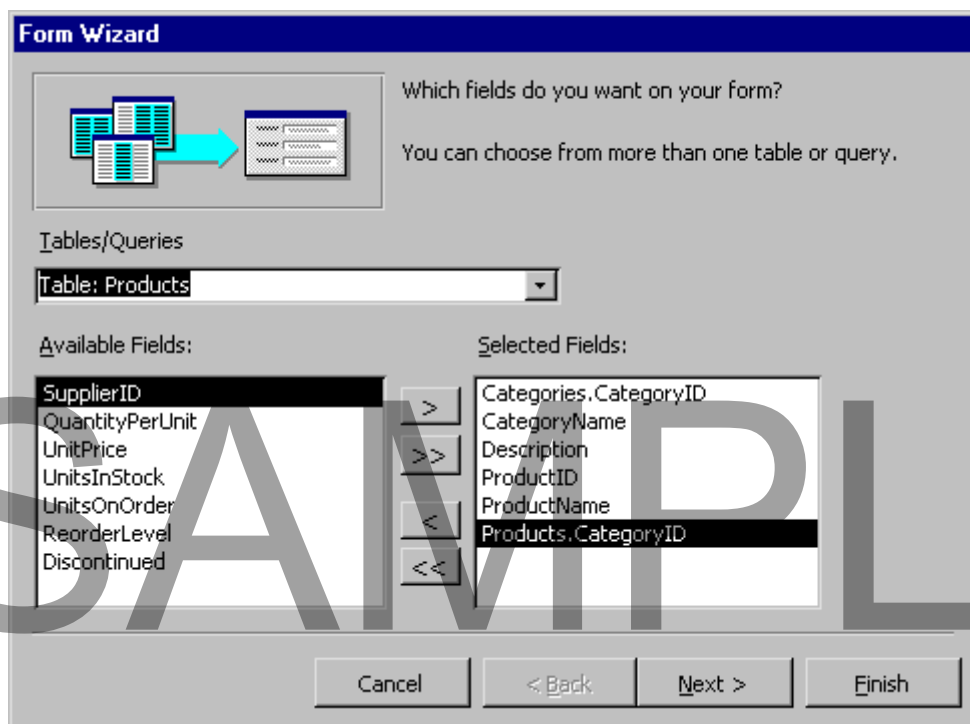
Creating a Form with Two Subforms

- Click **Forms** in the **Objects** pane.
- Click the **New** button on the database window. This opens the **New Form** dialog box.
- Select Form Wizard.
- Click **OK**.
- Select **Table: Categories** from the **Tables/Queries** drop-down menu.
- Add the CategoryID, CategoryName and Description fields:

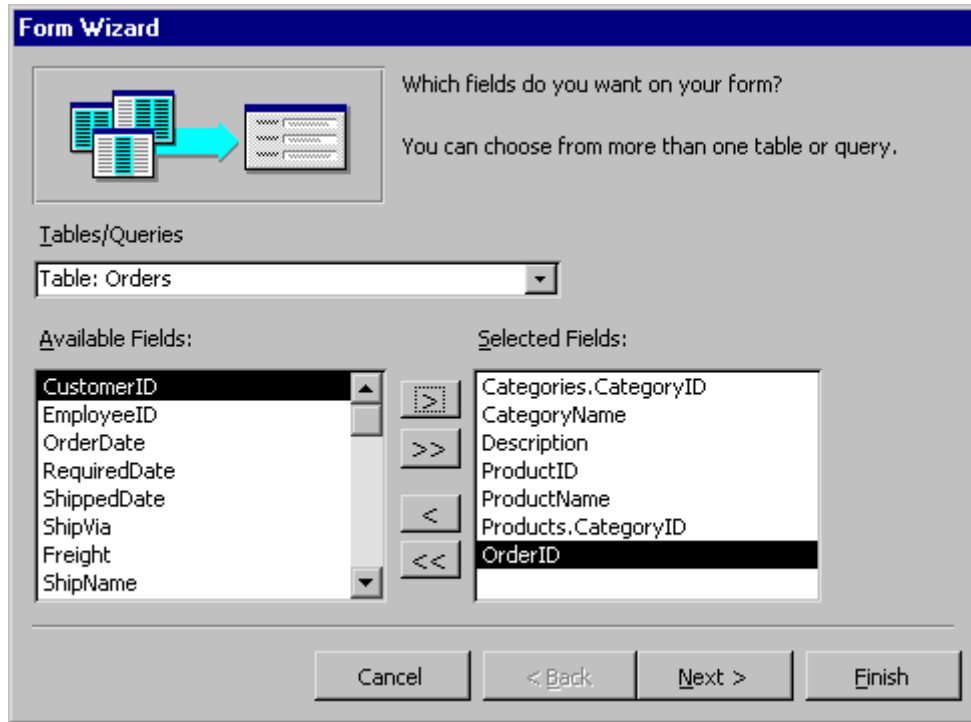
SAMPLE



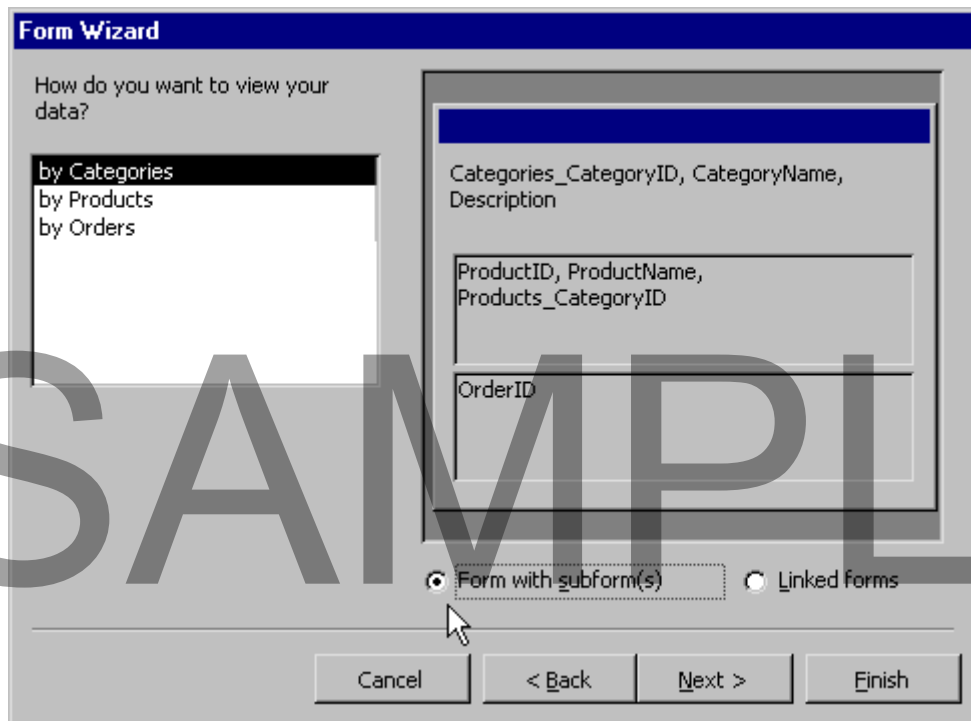
- Select **Table: Products** from the **Tables/Queries** drop-down menu. This will be the first **subform**.
- Add the ProductID, ProductName and CategoryID fields:



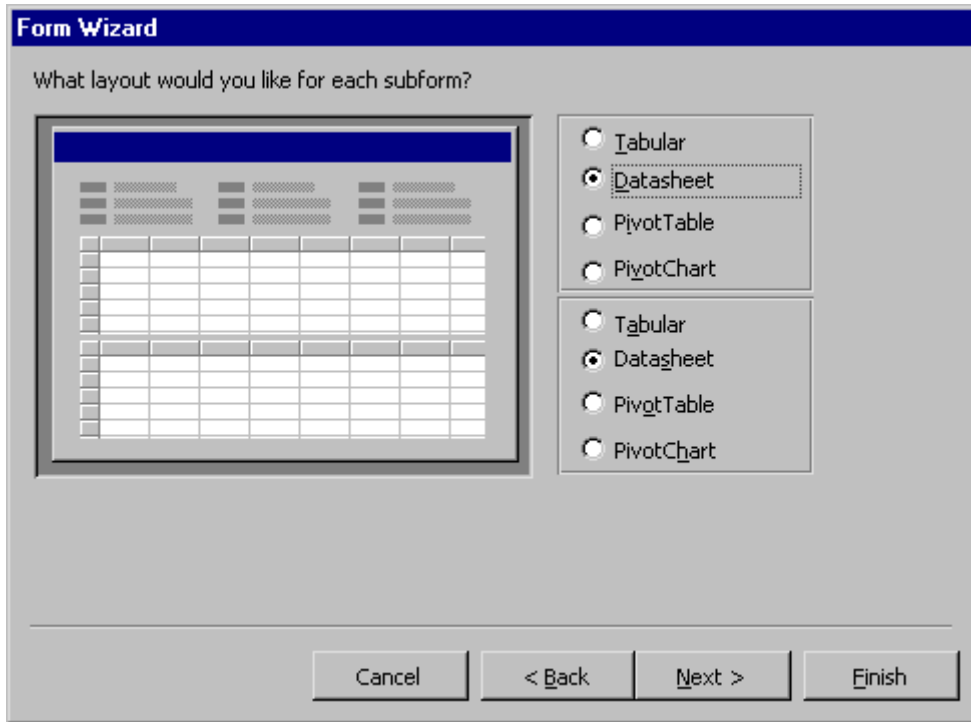
- Select **Table: Orders** from **Tables/Queries** drop-down menu. This will be the second **subform**.
- Add the **OrderID** field:



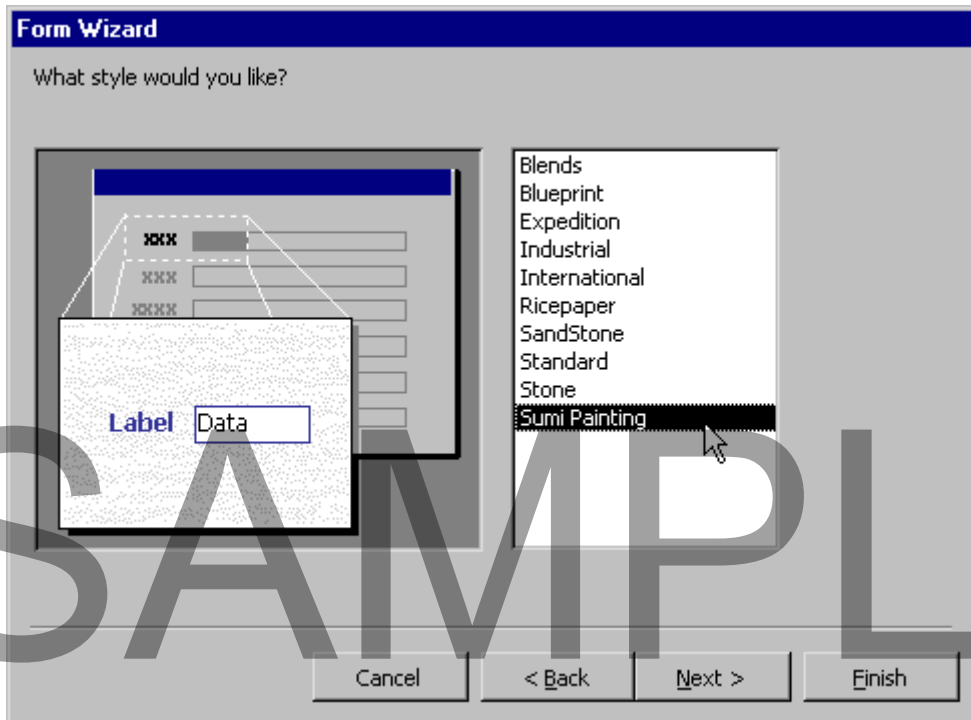
- Click **Next**.
- Select the by Categories view in the How do you want to view your data dialog box.
- Select the **Form with subform(s)** option button:



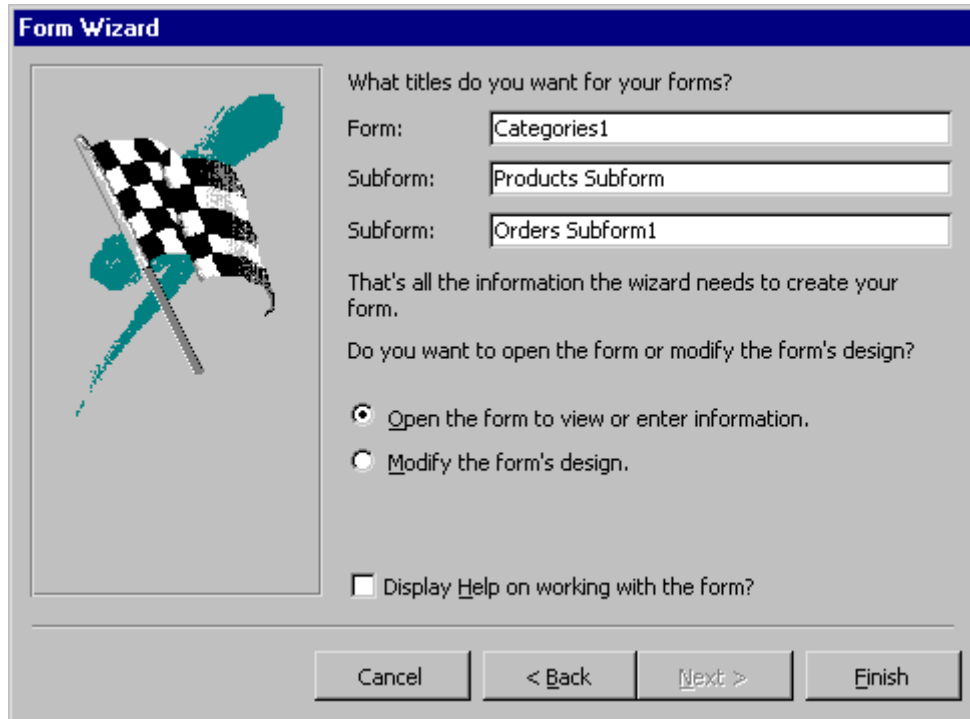
- Click **Next**.
- Ensure that the **Datasheet** layout option buttons are selected for both of the subforms:



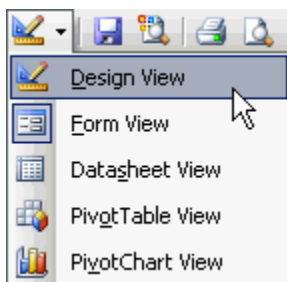
- Click **Next**.
- Select the **Sumi Painting** form style:



- Click **Next**.
- Enter the following titles for the form and each subform:

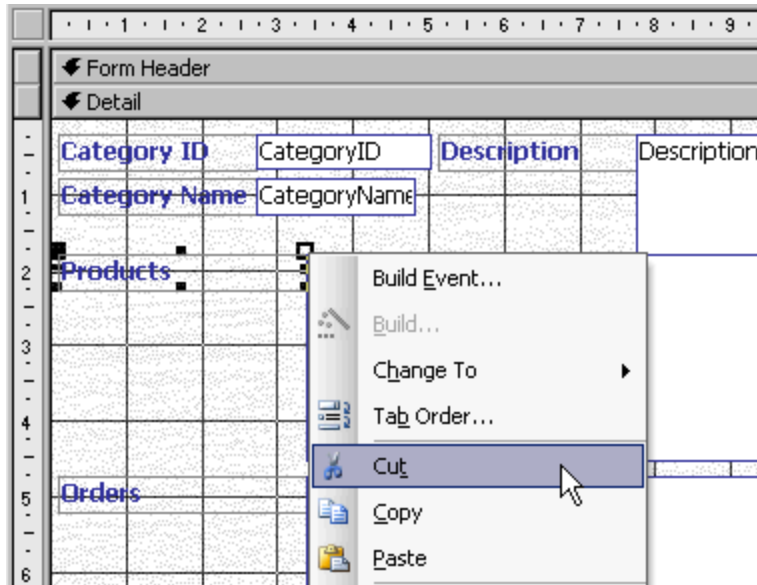


- Click **Finish**.
- Click the down arrow on the **View** button on the **Form Design** toolbar, and select **Design View**:



- Right-click on the **Products** subform.
- From the pop-up menu, select **Cut**:

SAMPLE

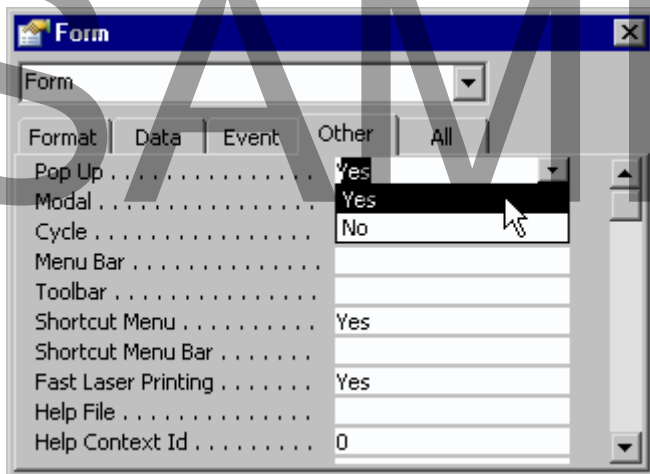


- Close the form without saving the changes.
- Close the Northwind database.

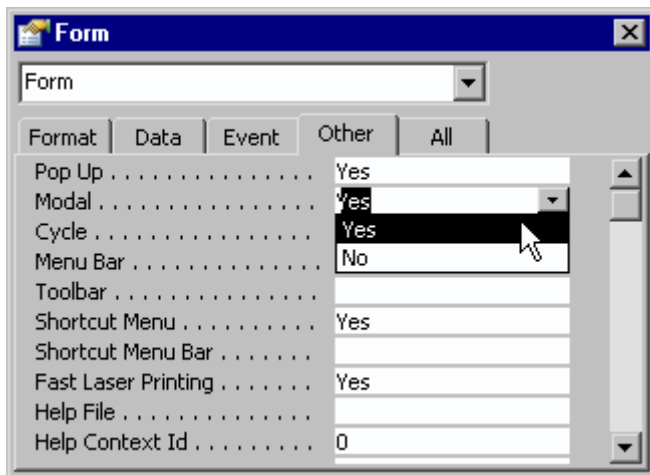
Creating Pop-up Forms

Creating a Modal Pop-up Form

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Forms** in the **Objects** pane.
- Open **Product Entry Form** in Design view.
- If the **Form** properties dialog box is not open, right-click on the title bar.
- From the pop-up menu, select **Properties**.
- Click the **Other** tab.
- Select **Yes** from the **Pop Up** drop-down menu:



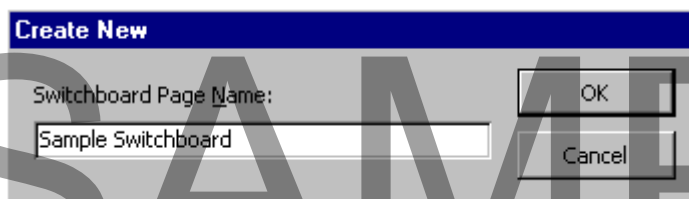
- Select **Yes** from the **Modal** drop-down menu:



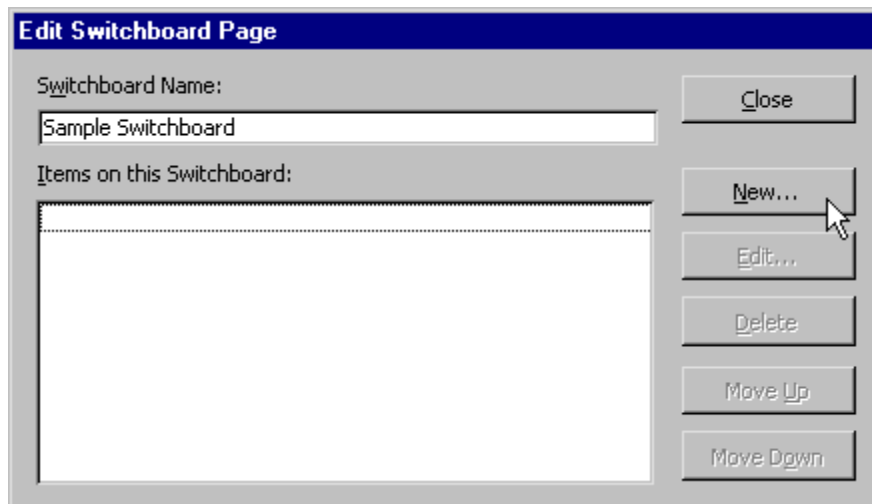
- Close the **Form** properties dialog box.
- Save the changes to the **Product Entry Form**.
- Close the form.
- Close the Northwind database.

Working with Switchboards

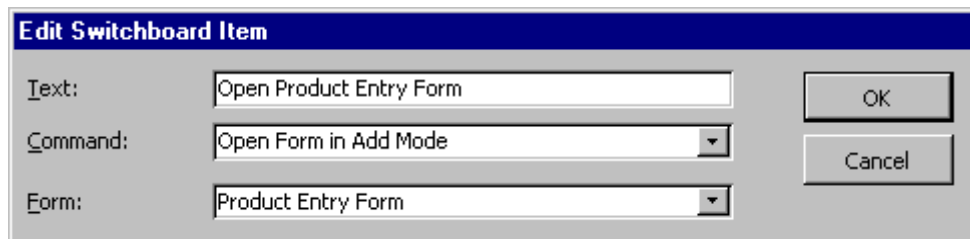
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- From the main menu, select **Tools > Database Utilities > Switchboard Manager**.
- If a warning dialog box appears, click **Yes** to create a switchboard.
- Click **New** in the **Switchboard Manager** dialog box.
- Type **Sample Switchboard** for the name of the **switchboard**:



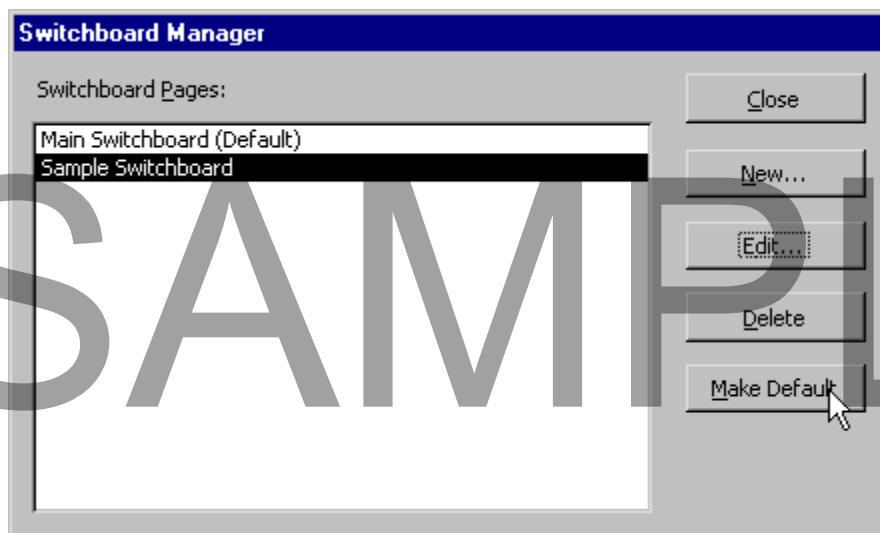
- Click **OK**.
- Select **Sample Switchboard**.
- Click **Edit**.
- Click **New**:



- Type **Open Product Entry Form** in the **Text** field.
- Select **Open Form in Add Mode** from the **Command** drop-down menu.
- Select **Product Entry Form** in the **Form** drop-down menu:



- Click **OK**.
- Click **Close**.
- Click the **Make Default** button:

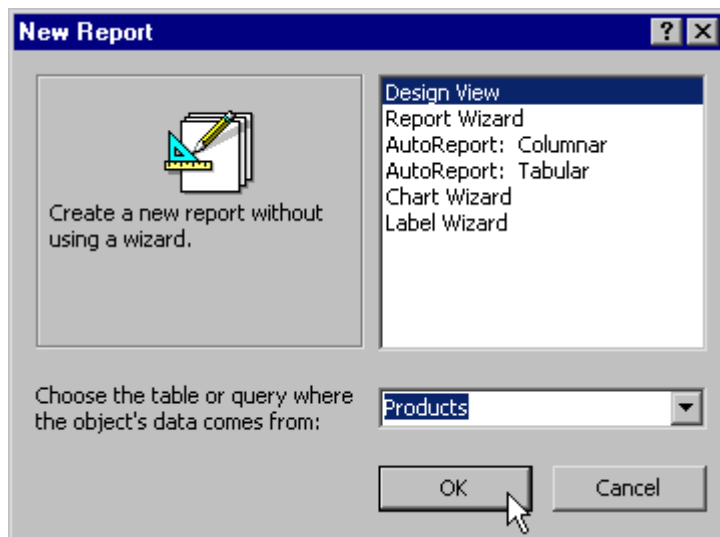


- Click **Close**.
- Close the Northwind database.

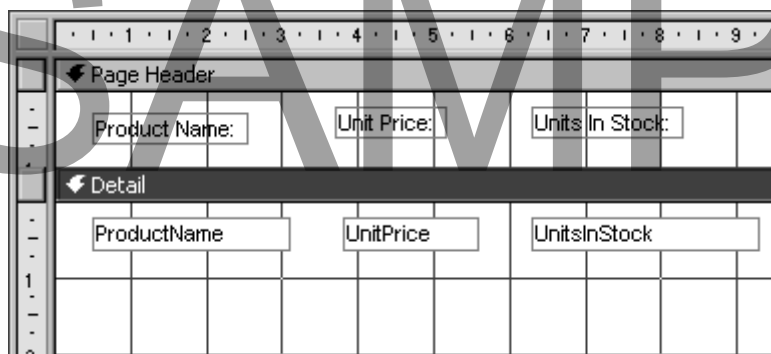
Designing Reports in Access 2003

Working with Standard Reports

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Reports** in the **Objects** pane.
- Click the **New** button.
- Select **Design View**.
- Select **Products** from the drop-down menu.
- Click **OK**:

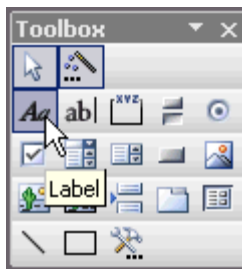


- Drag and drop the **ProductName**, **UnitPrice**, and **UnitsInStock** fields from the products **data source** to the **Detail** area of the report.
- Cut the **Product Name**, **Unit Price**, and **Units In Stock** labels from the **Detail** area of the report and paste in the **Page Header** area of the report.
- Rearrange the labels and controls as shown below:

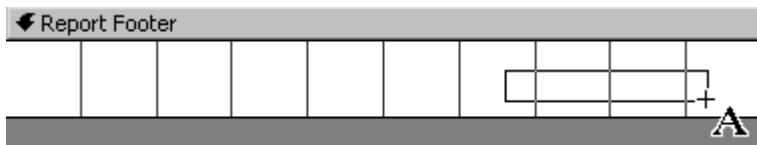


- Right-click in the **Detail** area of the report.
- From the pop-up menu, select **Report Header/Footer**.

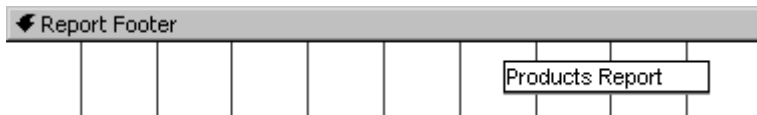
- Click the **Label** control on the **Toolbox** toolbar:



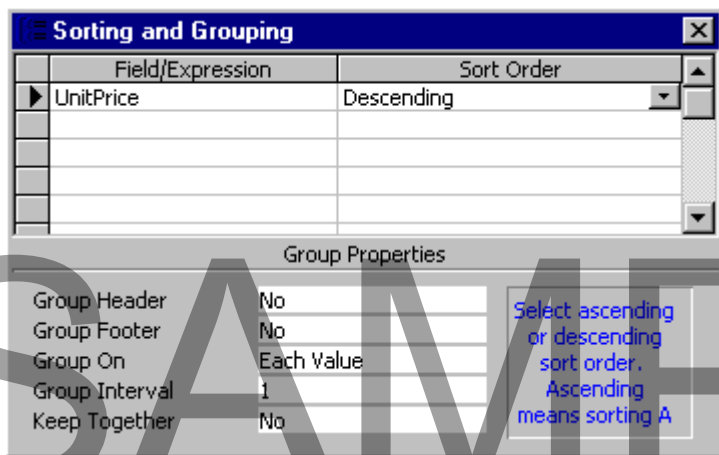
- Place the **Label** control on the **Report Footer** section of the report:



- Type **Products Report**:



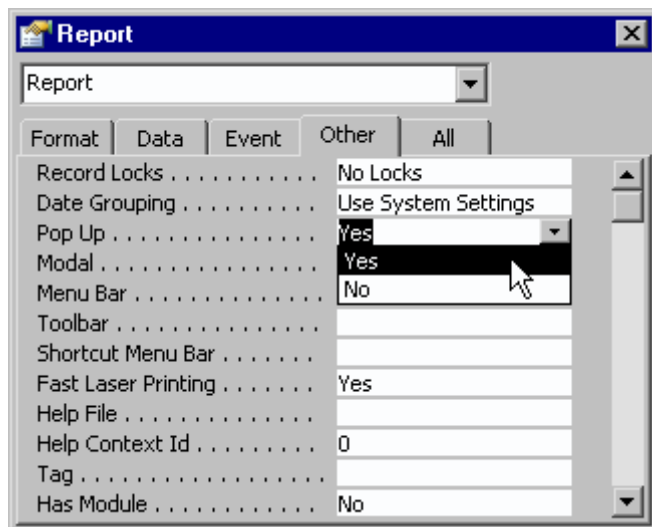
- Right-click in the **detail** area of the report.
- From the pop-up menu, select **Sorting and Grouping**.
- Select **UnitPrice** from the **Field/Expression** drop-down menu.
- Select the **Descending** sort order from the **Sort Order** drop-down menu:



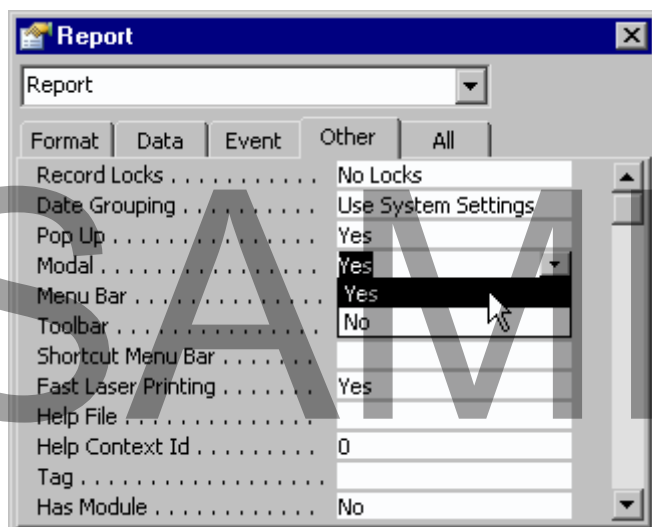
- Close the **Sorting and Grouping** dialog box.
- Click the **Save** button. Save the form as **Products Report**.
- Click **OK**.
- Close the report.
- Close the Northwind database.

Working with Pop-up Reports

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Reports** in the **Objects** pane.
- Open Products Report in Design view.
- Right-click on the report title bar.
- From the pop-up menu, select **Properties**.
- Click the **Other** tab.
- Select **Yes** from the **Pop Up** drop-down menu:



- Select **Yes** from the **Modal** drop-down menu:

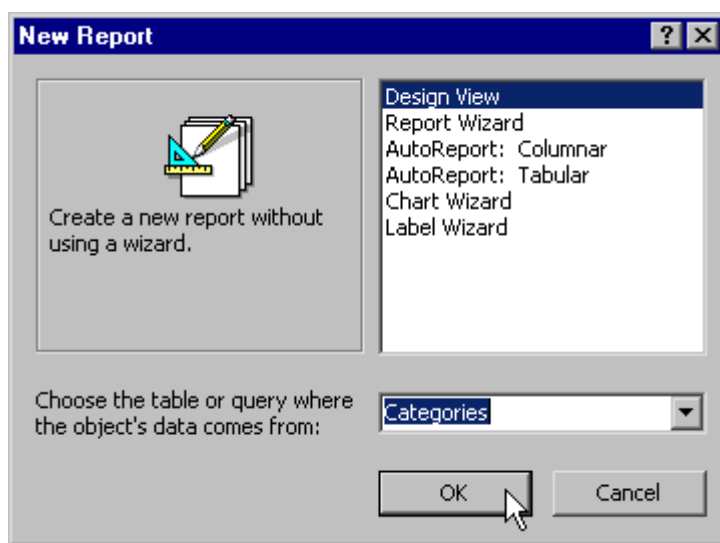


- Close the **Properties** dialog box.
- Close the report without saving the changes.
- Close the Northwind database.

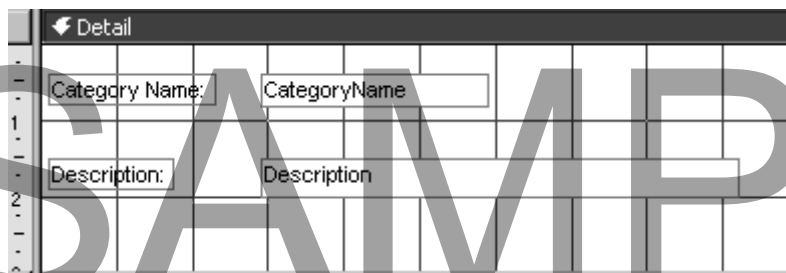
Working with Subreports

Creating a Subreport

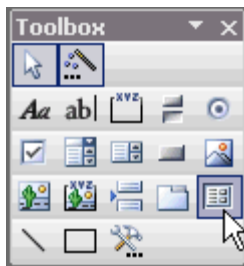
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Reports** in the **Objects** pane.
- Click the **New** button.
- Select **Design View**.
- Select **Categories** from the drop-down menu.
- Click **OK**:



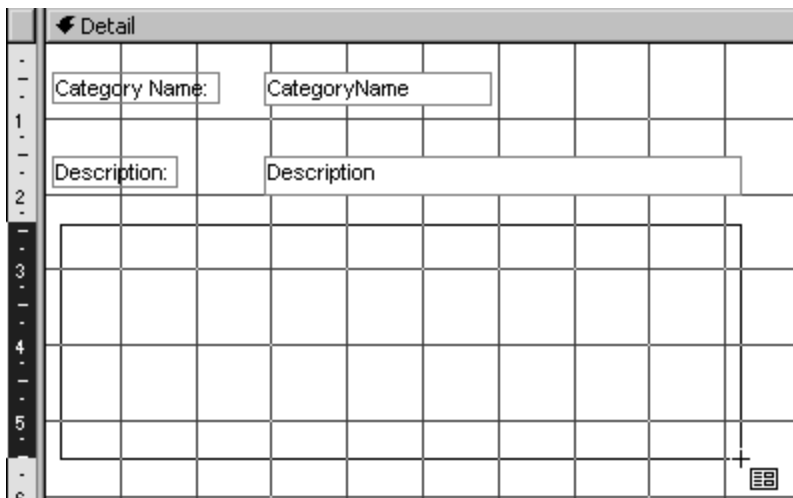
- Drag and drop the **CategoryName** and **Description** fields from the **Categories** data source to the **Detail** area of the report.
- Resize the labels and controls as shown below:



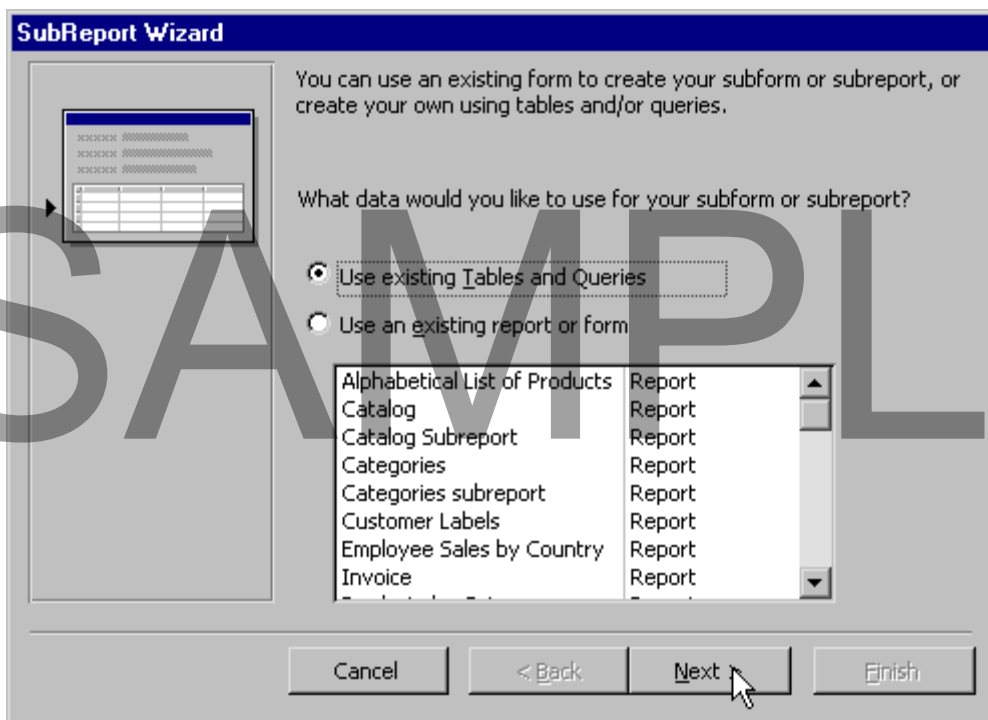
- Click the **Subform/Subreport** button on the **Toolbox** toolbar:



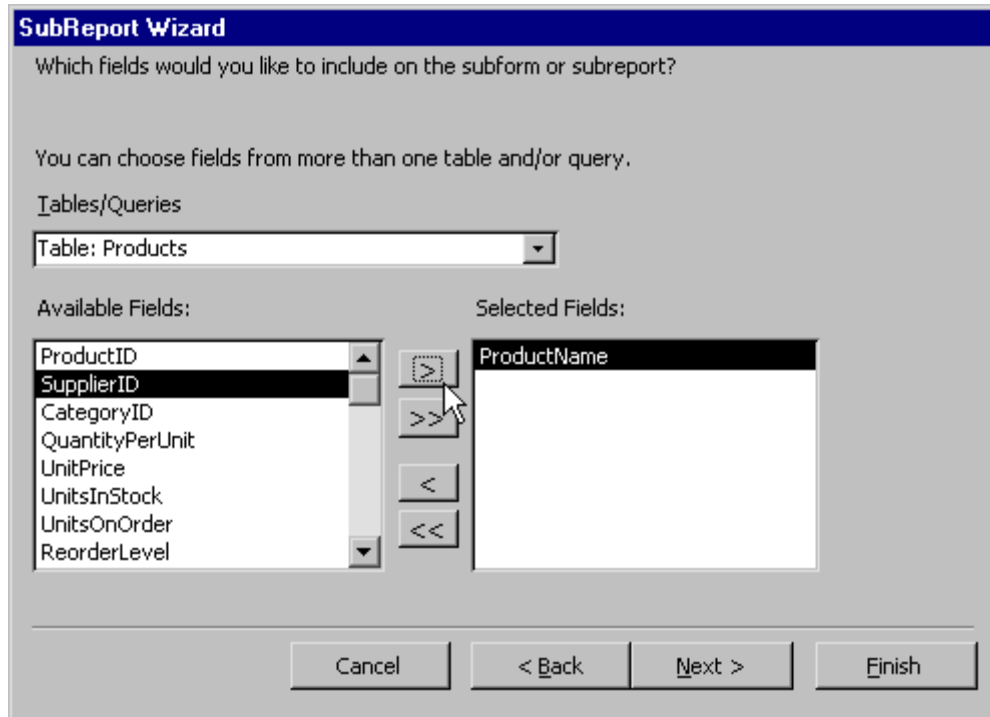
- Create a **subreport** in the **Detail** area of the form:



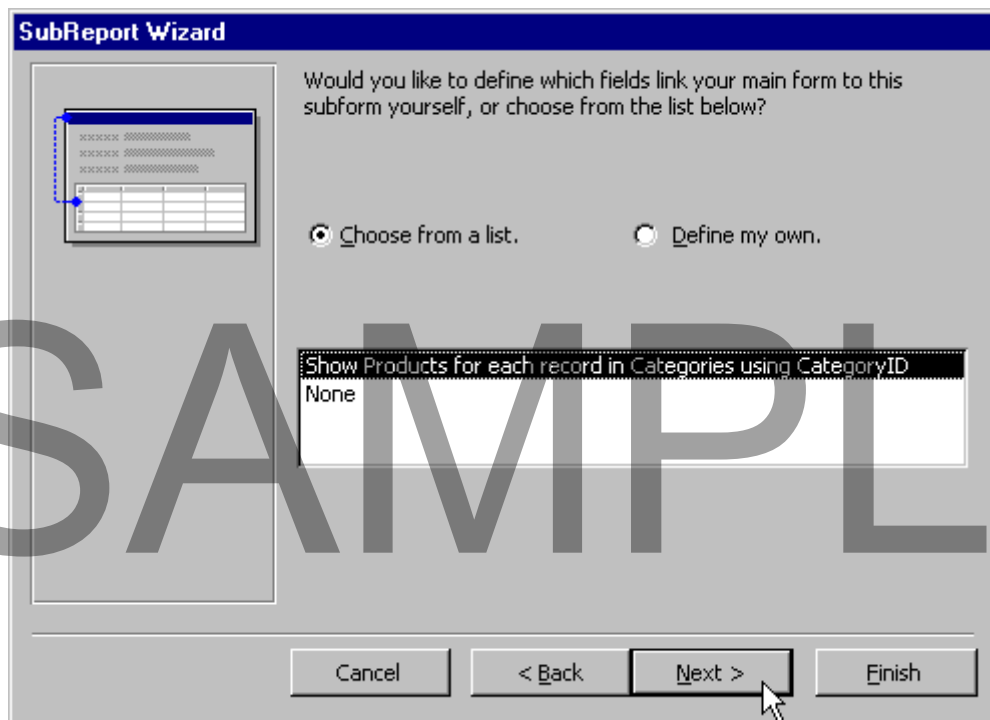
- Select the **Use existing Tables and Queries** option button.
- Click **Next**:



- Select **Table: Products** from the **Tables/Queries** drop-down menu.
- Add the **ProductName** field:

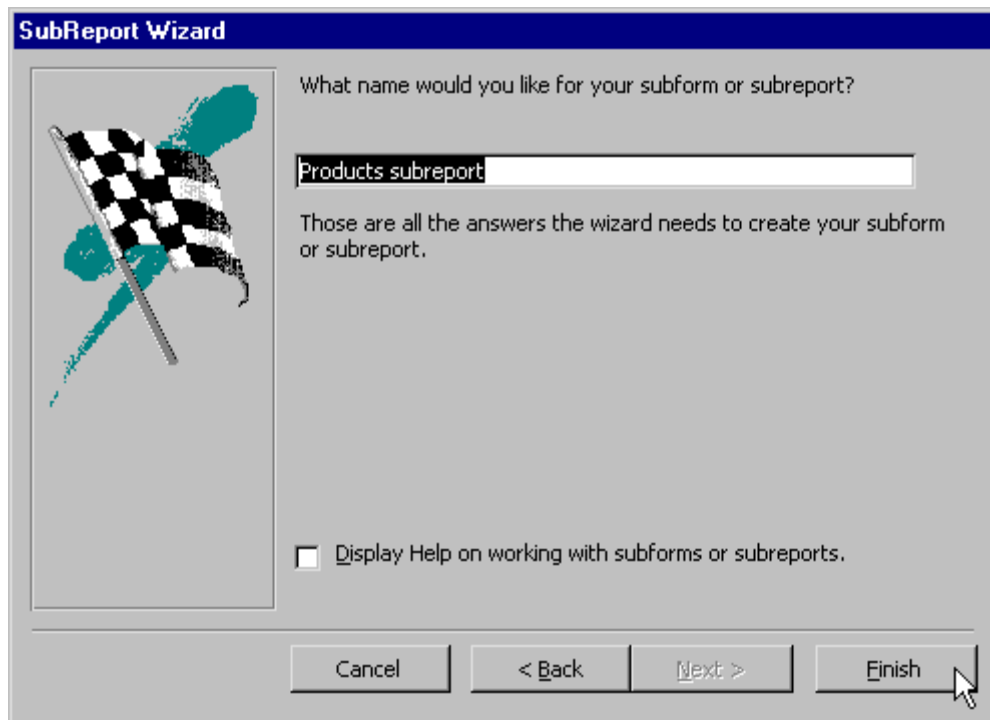


- Click **Next**.
- Select the **Choose from a list** option button:

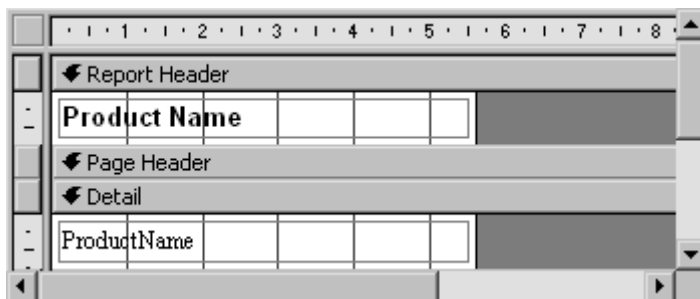


- Click **Next**.
- Type **Products subreport** as the name of the subreport.

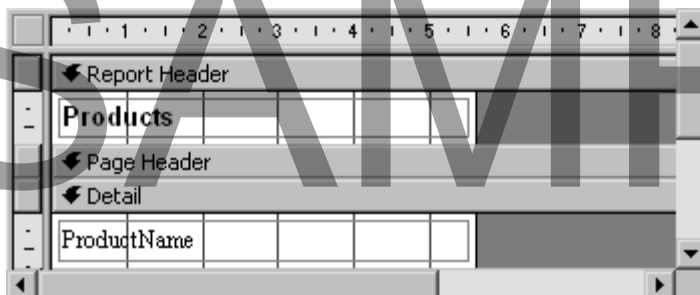
- Click **Finish**:



- With the main report in **Design** view, move and resize the **Products subreport** as shown below:



- Change the Report Header for the **Products** subreport to **Products**:

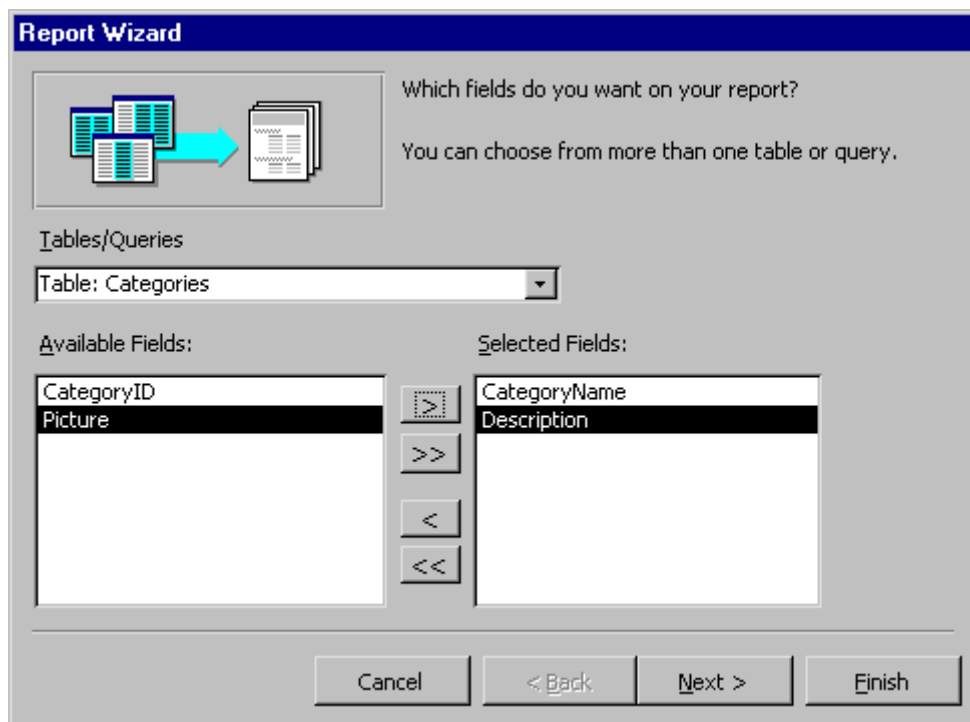


- Right-click on the **Products subreport** label.
- From the pop-up menu, select **Cut**.
- Click the **Save** button. Save the report as **Categories and Products**.
- Click **OK**.

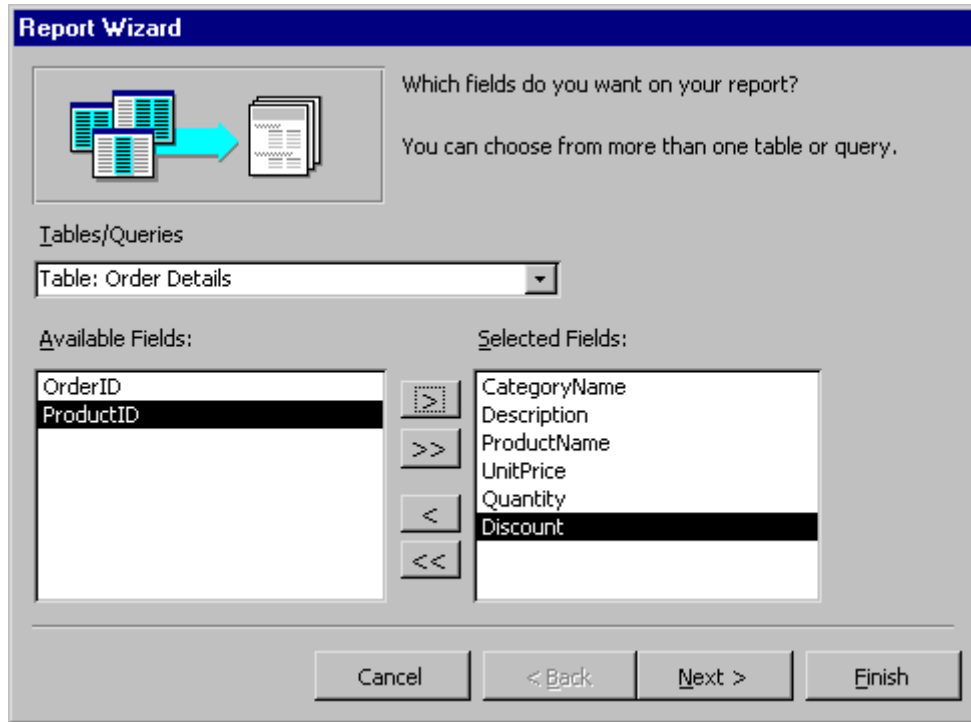
- Close the report.

Creating a Report with Two Subreports

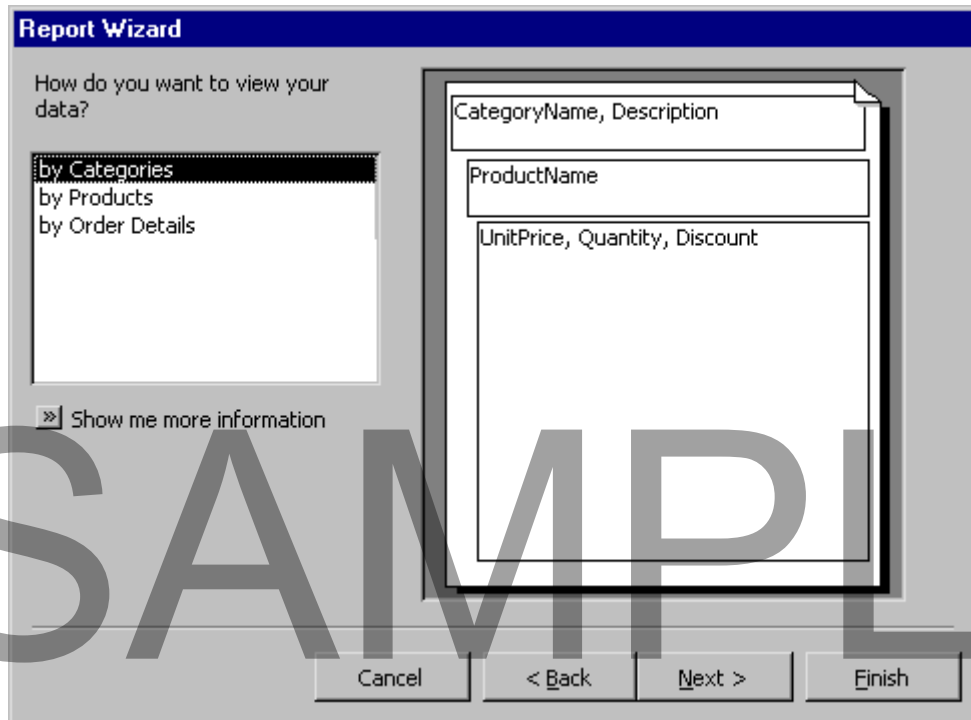
- Click **Reports** in the **Objects** pane.
- Click the **New** button on the database window. This opens the **New Report** dialog box.
- Select Report Wizard.
- Click **OK**.
- Select **Table: Categories** from the **Tables/Queries** drop-down menu.
- Add the **CategoryName** and **Description** fields:



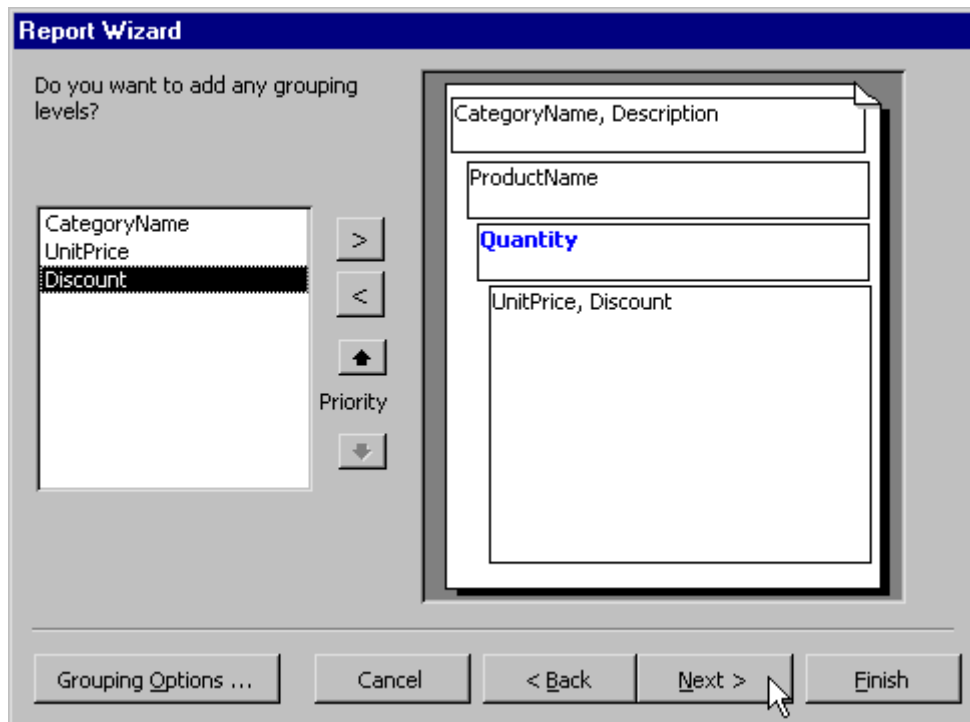
- Select **Table: Products** from **Tables/Queries** drop-down menu. This will be the first **subreport**.
- Add the **ProductName** field.
- Select **Table: Order Details** from **Tables/Queries** drop-down menu. This will be the second **subreport**.
- Add the **UnitPrice**, **Quantity**, and **Discount** fields:



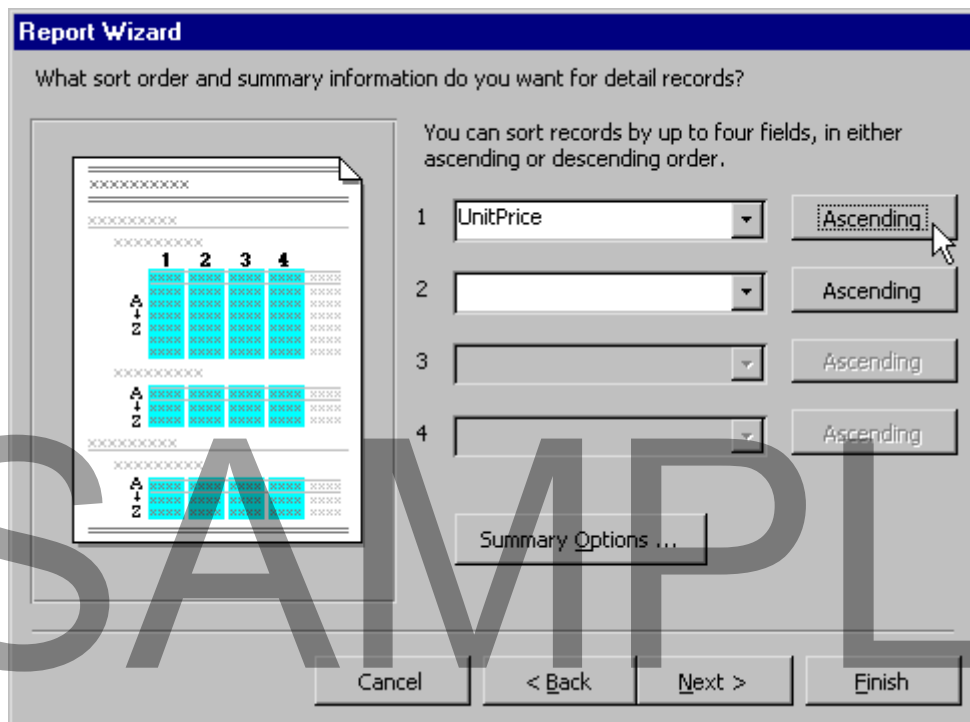
- Click **Next**.
- Select the **by Categories** view option:



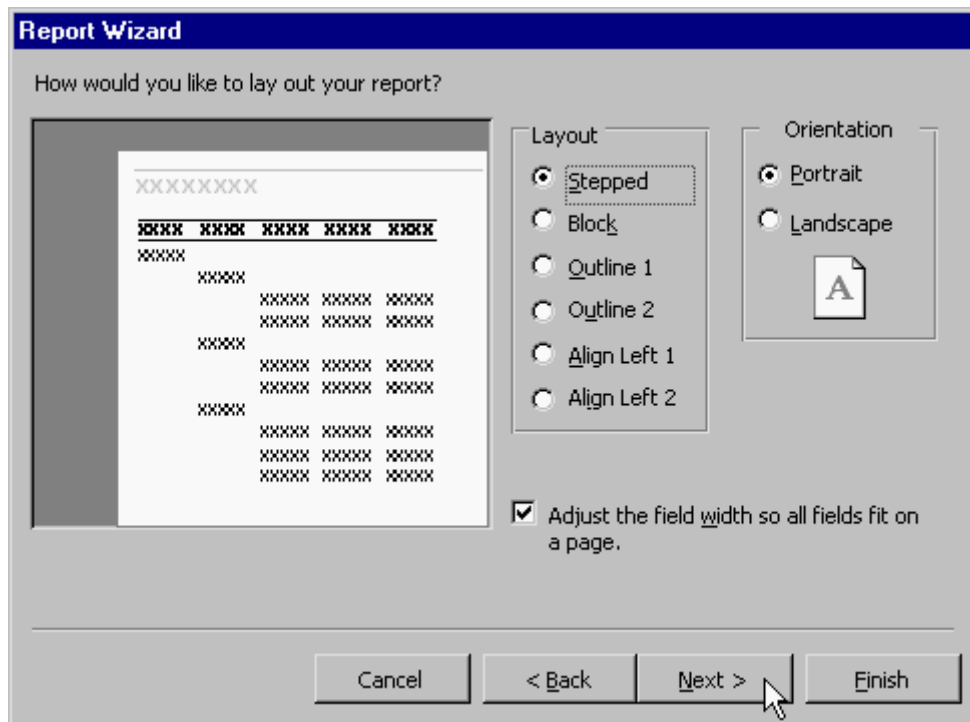
- Click **Next**.
- Select the **Quantity** grouping level from the **Do you want to add any grouping levels** dialog box:



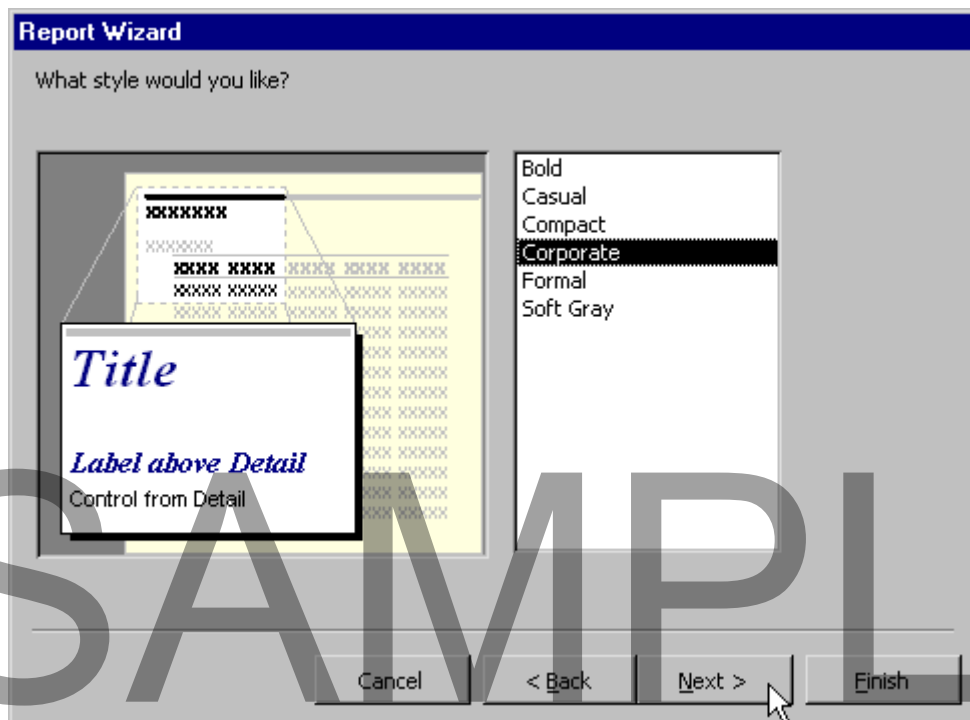
- Click **Next**. Select the **UnitPrice** field to sort, and click on the **Ascending** button:



- Click **Next**. Leave the default settings:



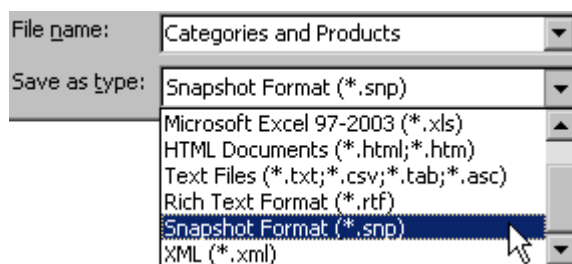
- Click **Next**. Select the **Corporate** report style:



- Click **Next**.
- Type **Categories Sample** for the report name.
- Click **Finish**.
- Close the report.
- Close the Northwind database.

Working with Report Snapshots

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Reports** in the **Objects** pane.
- Click on the **Categories and Products** report.
- From the main menu, select **File > Export**.
- Locate your **Access 2003 Intermediate Samples** folder.
- Select **Snapshot Format** from the **Save as type** drop-down menu:



- Name the file **Categories and Products Snapshot**.
- Click **Export**.

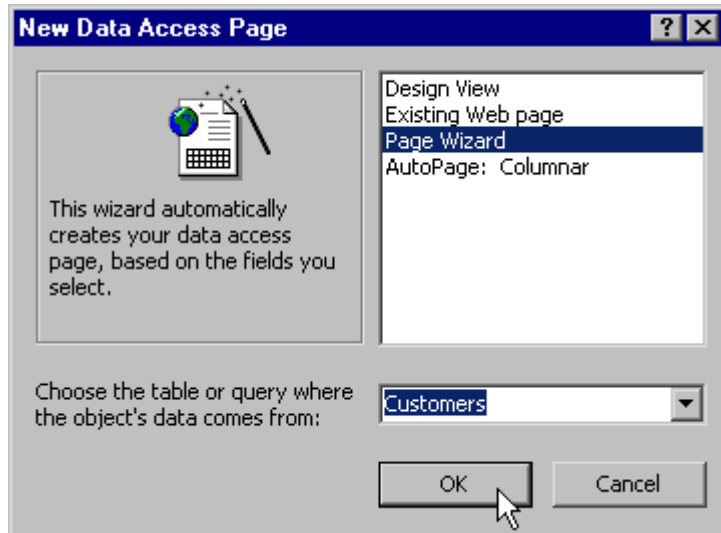
Note: To see a sample of this snapshot report, open **Categories and Reports Snapshot Sample.snp** in your **Access 2003 Intermediate Samples** folder.

- Close the Northwind database.

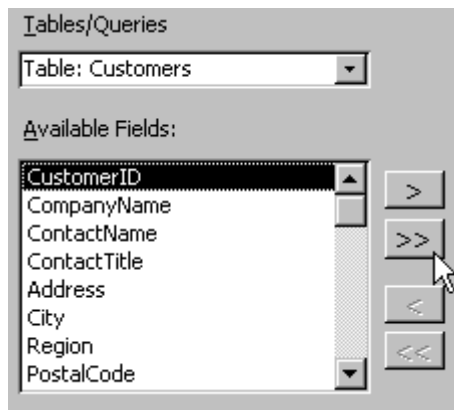
Developing Data Access Pages

Using the New Data Access Page Wizard

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Select **Pages** in the **Objects** pane. Click the **New** button.
- Select **Page Wizard**. Select **Customers** from the drop-down menu.
- Click **OK**.

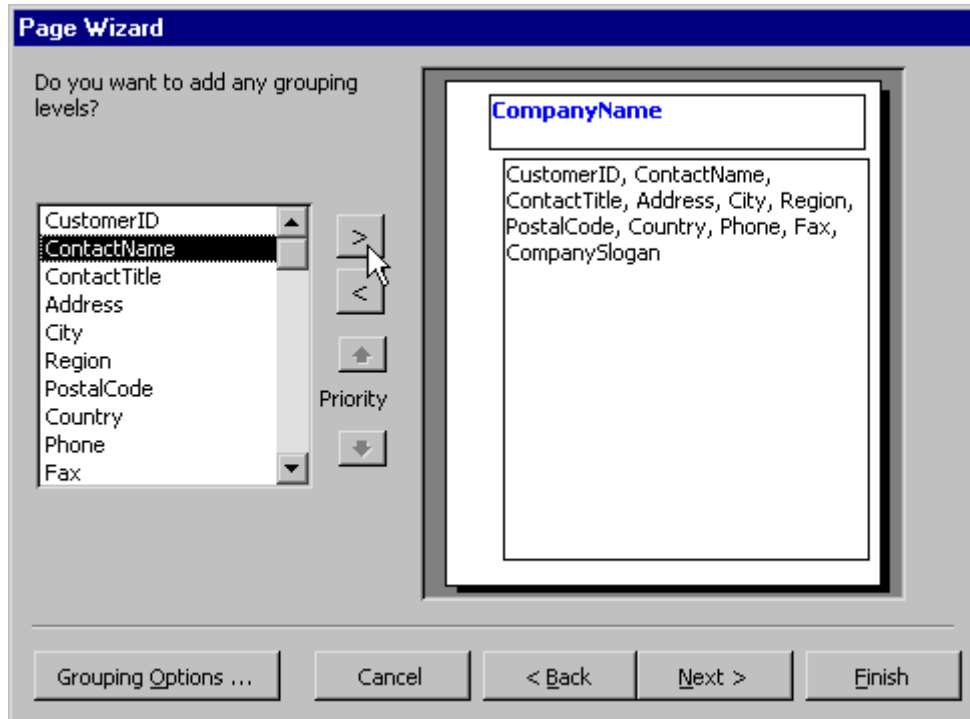


- Select all fields from the **Available Fields** list:

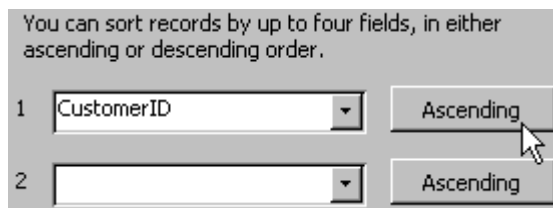


- Click **Next**.
- Select **CompanyName** for the grouping level:

SAMPLE

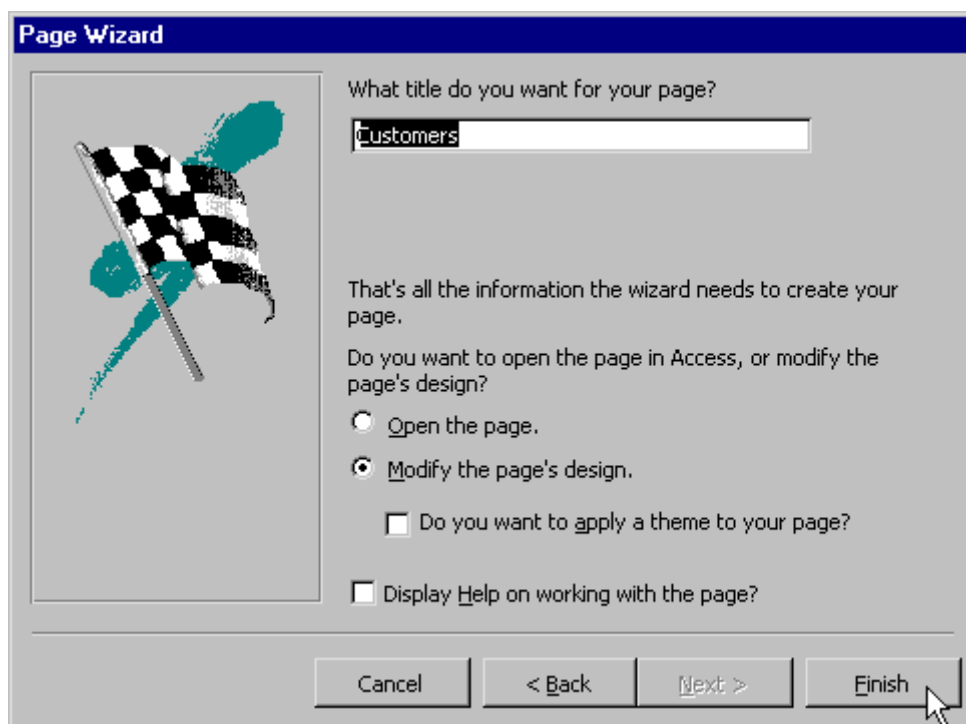


- Click **Next**.
- From the sort order drop-down menu, select **CustomerID**.
- Set the sort order as Ascending:



- Click **Next**.
- Type **Customers** as the name for the **data access page**.
- Click **Finish**:

SAMPLE

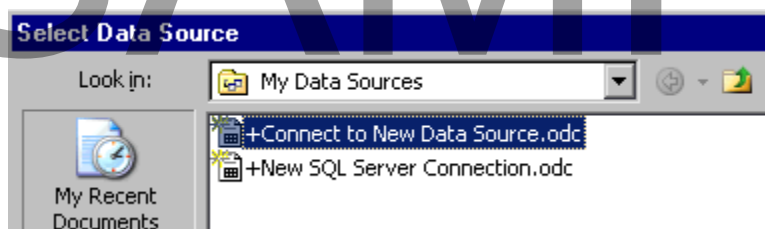


- This opens the **Customers** data access page in **Design** view.
- Click the **Save** button. Save the file as **Customers.htm** in your **Access 2003 Intermediate Samples** folder.
- Click **Save**. If you see a dialog box asking you if you want to set the folder as the default location for data access files, click **No**.
- Close the **Customers** data access page.

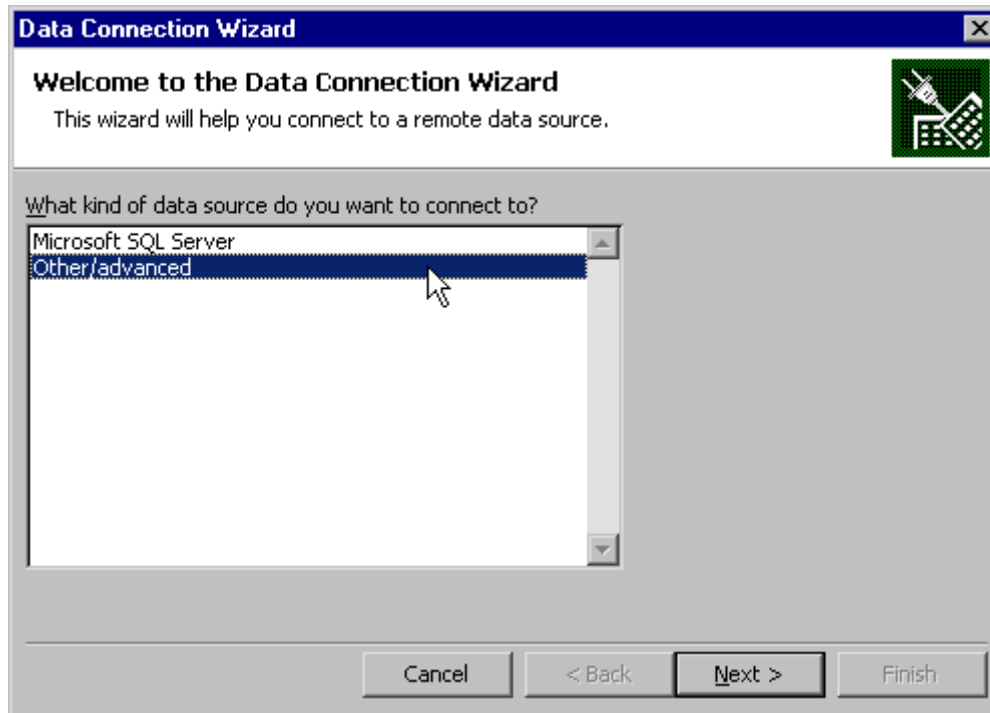
Note: To see a sample of what the **Customers** data access page should look like, open the **Customers Sample.htm** in your **Access 2003 Intermediate Samples** folder.

Defining a Data Source for a Stand-Alone Data Access Page

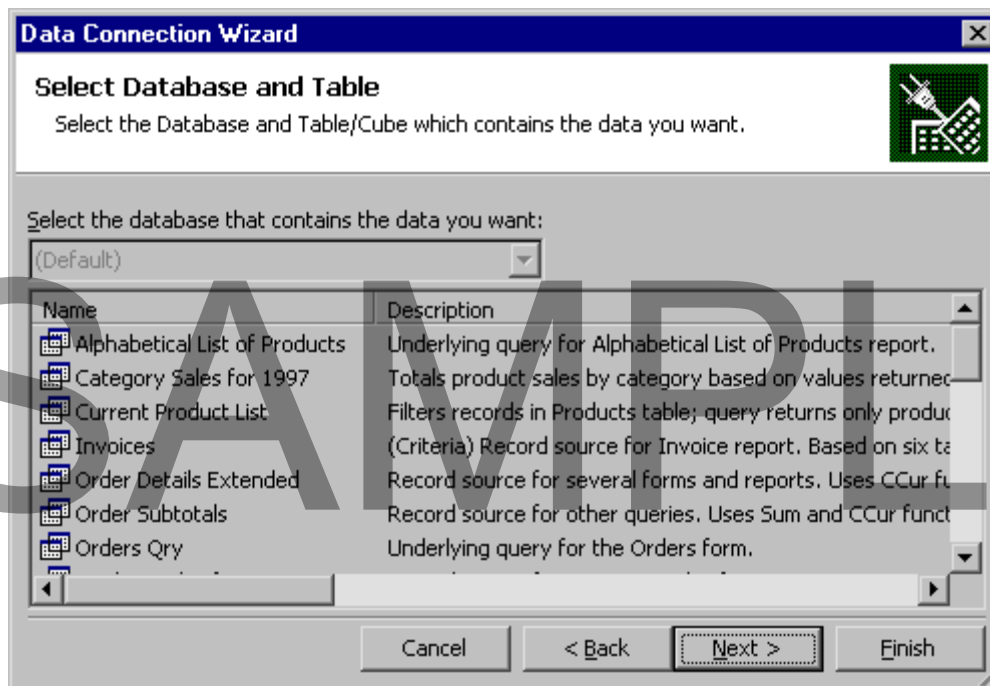
- Close the Northwind database, then from the main menu, select **File > New**. The **New File** Task Pane appears.
- Click the **Blank data access page** link on the **New File** Task Pane. This opens the **Select Data Source** dialog box.
- Double-click **+Connect to New Data Source.odc**:



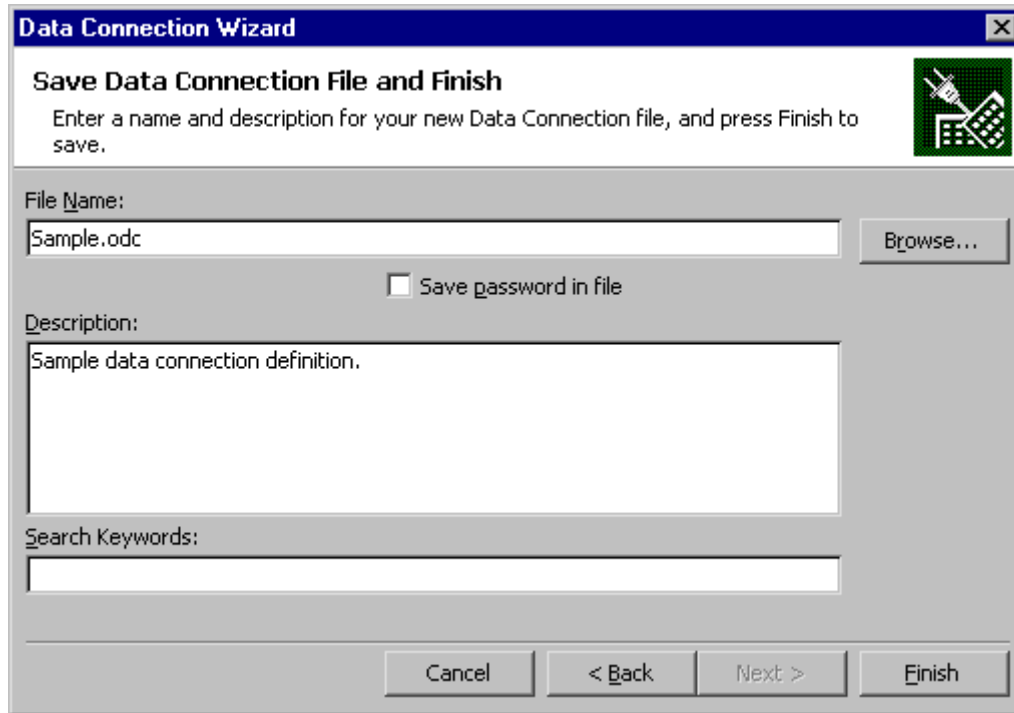
- This opens the **Data Connection Wizard** dialog box.
- Select the desired data source to which you wish to connect. Ask your instructor if you are unsure as to which data sources are available:



- Click **Next**.
- Select the desired data **Provider**.
- Click **Next**.
- Select the desired **Connection** properties.
- Click **OK**. This opens another dialog box:



- Click **Next**. Type **Sample.odc** as a name for the new **Data Connection**:

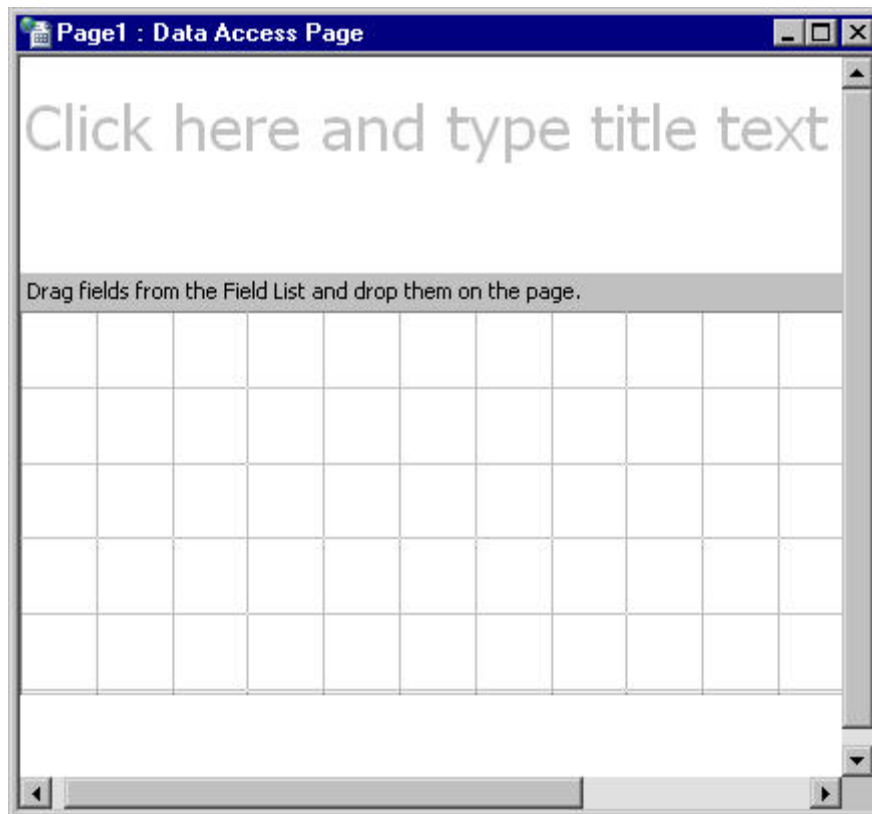


- Click **Finish**.
- Close the data access page.

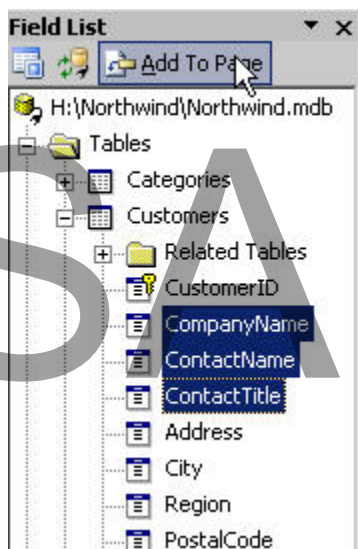
Creating Stand-Alone Data Access Pages

- From the main menu, select **File > New**. The **New File** Task Pane appears.
- Click the Blank data access page link.
- Select Sample.odc.
- Click **Open**.
- This opens a blank **Data Access Page**:

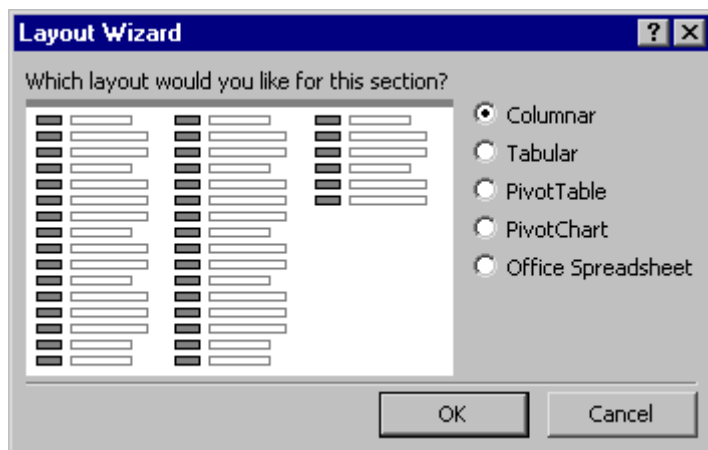
SAMPLE



- From the main menu, select **View > Field List**.
- This opens the **Field List** task pane which displays a listing of available table and query fields to add to the **Data Access Page**.
- Double-click on **Customers** to expand the menu, and select the **CompanyName**, **ContactName**, and **ContactTitle** fields from the **Field List** pane.
- Click **Add To Page** to add the fields to the blank page:



- This opens the **Layout Wizard**:



- Select the **Columnar** layout.
- Click **OK**.
- Close the data access page without saving the changes.

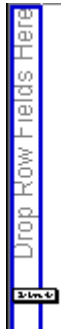
SAMPLE

Working with PivotTables and PivotCharts

Creating Pivot Tables and Pivot Charts

Using PivotTables and PivotCharts

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Queries** in the **Objects** pane.
- Double-click the **Quarterly Orders by Product** query to open it in **Datasheet** view.
- From the main menu, select **View > PivotTable View**.
- From the **PivotTable Field List** toolbox, drag and drop the **Product Name** field on the **row fields** portion of the worksheet:



- Drag and drop the **OrderYear** field on the **filter fields** portion of the worksheet:



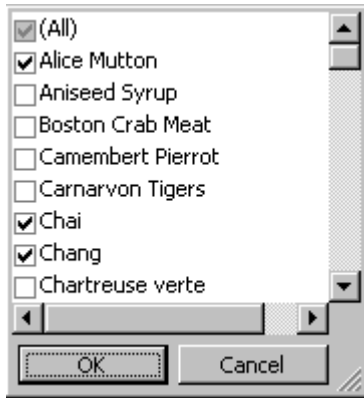
- Drag and drop the **CustomerID** field on the **column fields** portion of the worksheet:



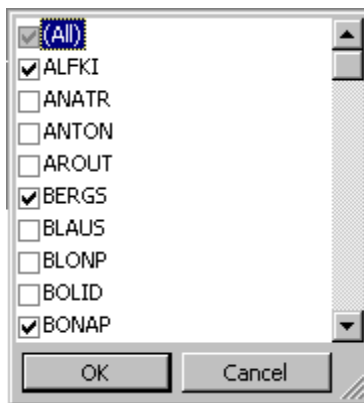
- Drag and drop the **Qtr 1** field on the **detail fields** portion of the worksheet:



- Click the **Product Name** drop-down menu.
- Deselect the **All** check box.
- Check the **Alice Mutton**, **Chai**, and **Chang** boxes:



- Click **OK**.
- Click the **CustomerID** drop-down menu.
- Deselect the **All** check box.
- Check the **ALFKI**, **BERGS**, and **BONAP** boxes:

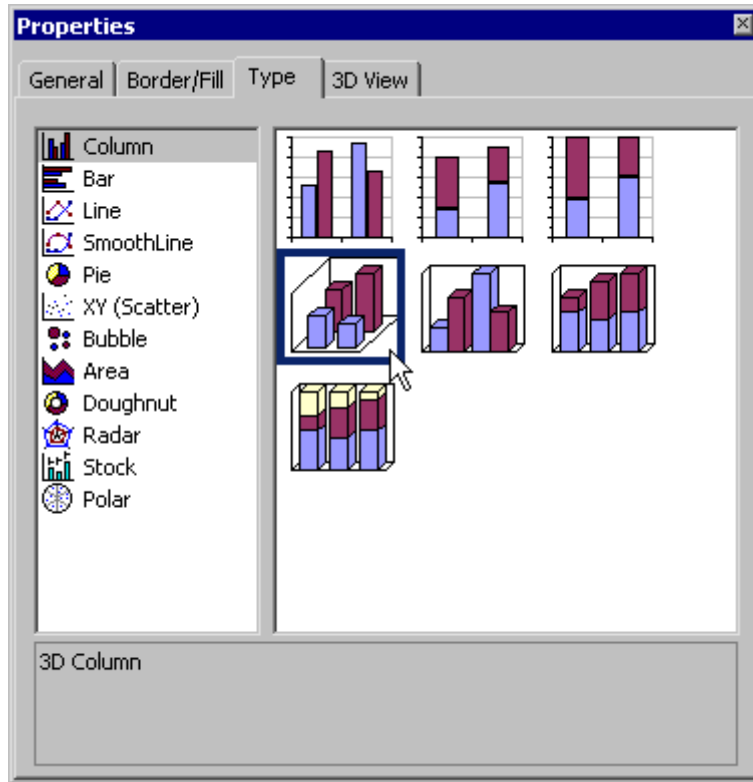


- Click **OK**.
- **Save** the changes.
- From the main menu, select **View > PivotChart View**.
- Drag and drop the **Qtr 1**, **Qtr 2**, **Qtr 3**, and **Qtr 4** fields on the **data fields** portion of the worksheet:



- Click on the chart.
- From the main menu, select **PivotChart > Chart Type**.
- Click the **Type** tab.
- Change the chart type to a **3D Column** chart:

SAMPLE



- Close the Properties dialog box.
- Save the changes.
- Close the **Quarterly Orders by Product** pivot chart worksheet.
- Close the Northwind database.

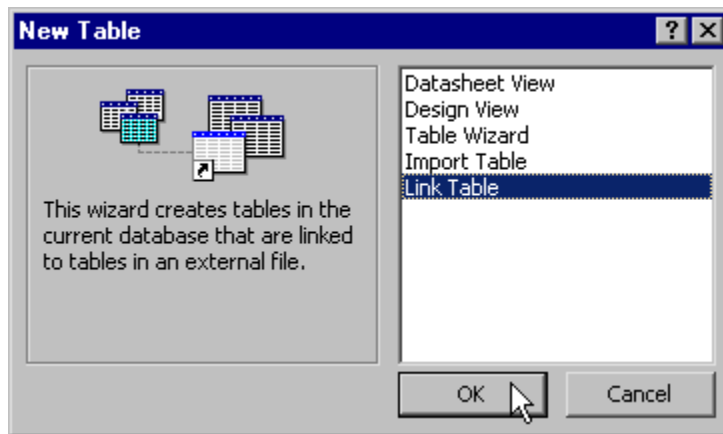
SAMPLE

Importing and Exporting

Linking to External Data Sources

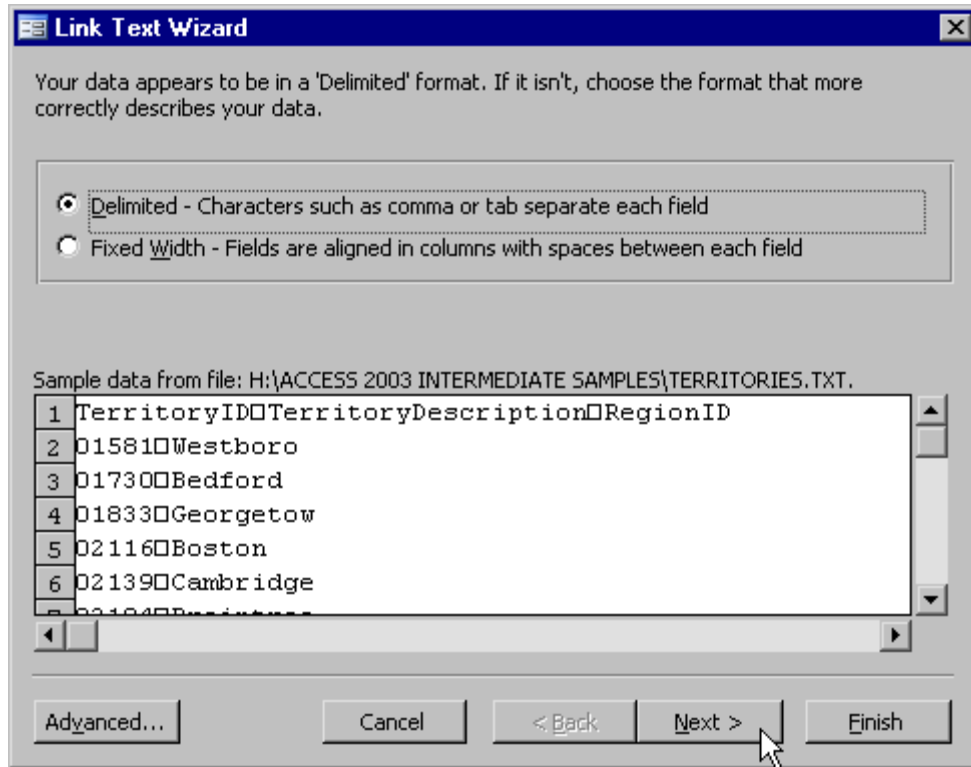
Linking to Text Files

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Tables** in the **Objects** pane.
- Click the **New** button.
- Select **Link Table**.
- Click **OK**:

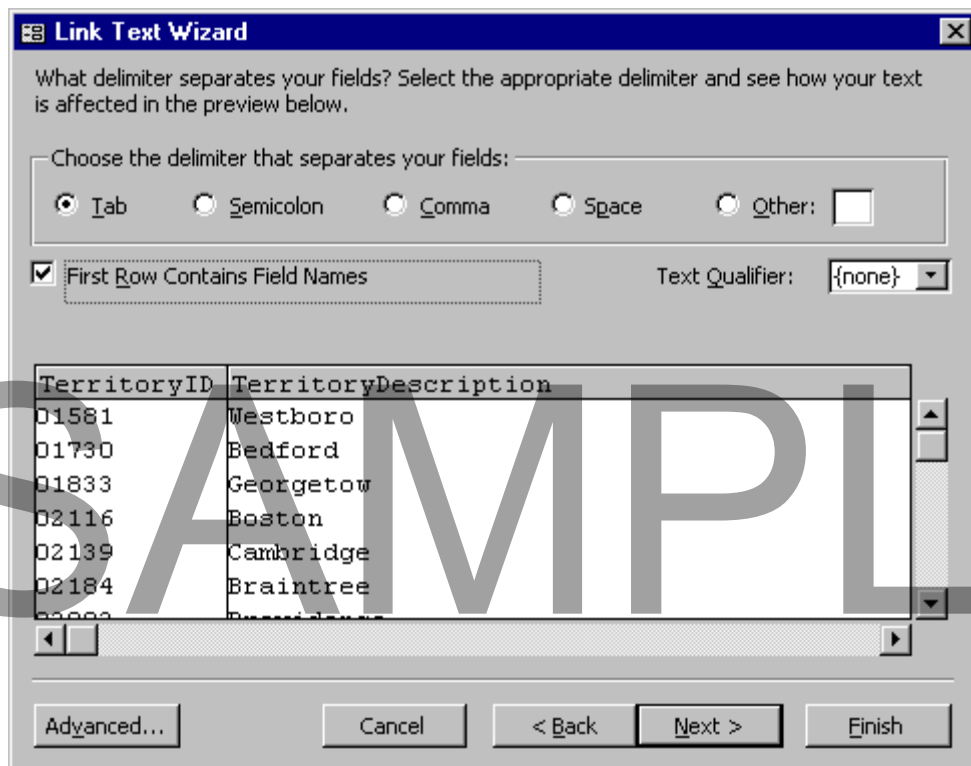


- From the **Files of type** drop-down menu, select **Text Files (*.txt; *.csv; *.tab; *.asc)**.
- Locate your **Access 2003 Intermediate Samples** folder.
- Select the **Territories.txt** file.
- Click **Link**.
- Click the **Delimited** option button.
- Click **Next**:

SAMPLE

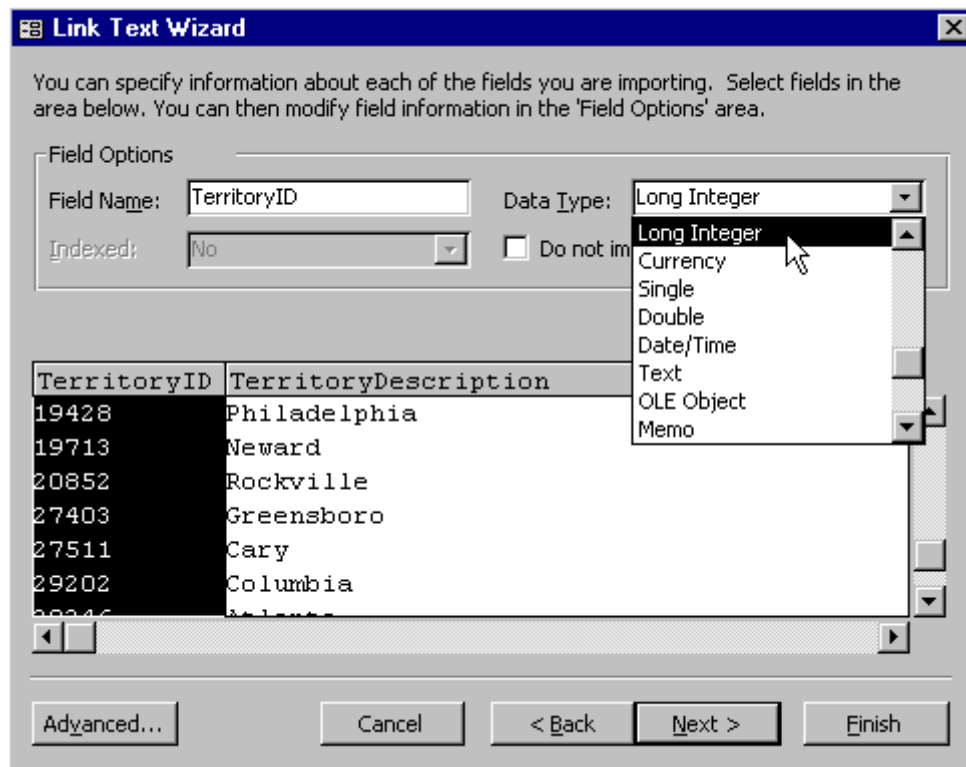


- Click the **Tab** option button.
- Check the **First Row Contains Field Names** check box:



- Click **Next**.
- Select the **TerritoryID** column.

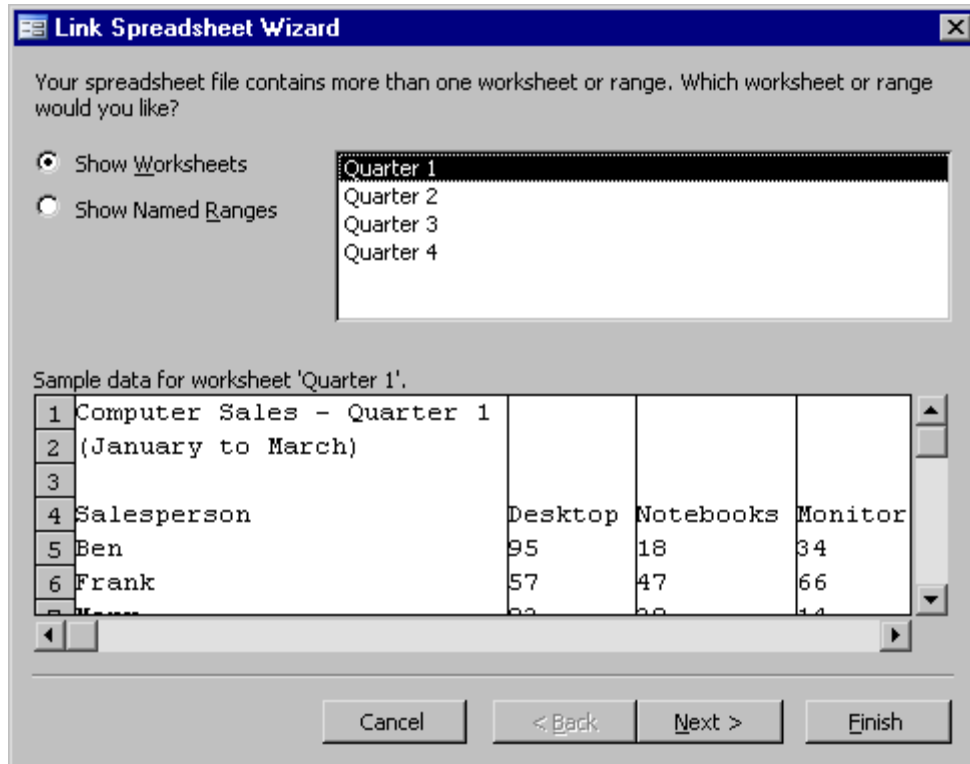
- From the **Data Type** drop-down menu, select **Long Integer**:



- Click **Next**.
- Name the linked table **Territories**.
- Click **Finish**.
- Click **OK** on the confirmation pop-up dialog box.

Linking to Microsoft Excel Spreadsheets

- Click **Tables** in the **Objects** pane.
- Click the **New** button. This opens the **New Table** dialog box.
- Select **Link Table**.
- Click **OK**. This opens the **Link** dialog box.
- From the Files of type drop-down menu, select **Microsoft Excel (*.xls)**.
- Locate your **Access 2003 Intermediate Samples** folder.
- Select the **sales.xls** file.
- Click **Link**.
- This opens the **Link Spreadsheet Wizard**:

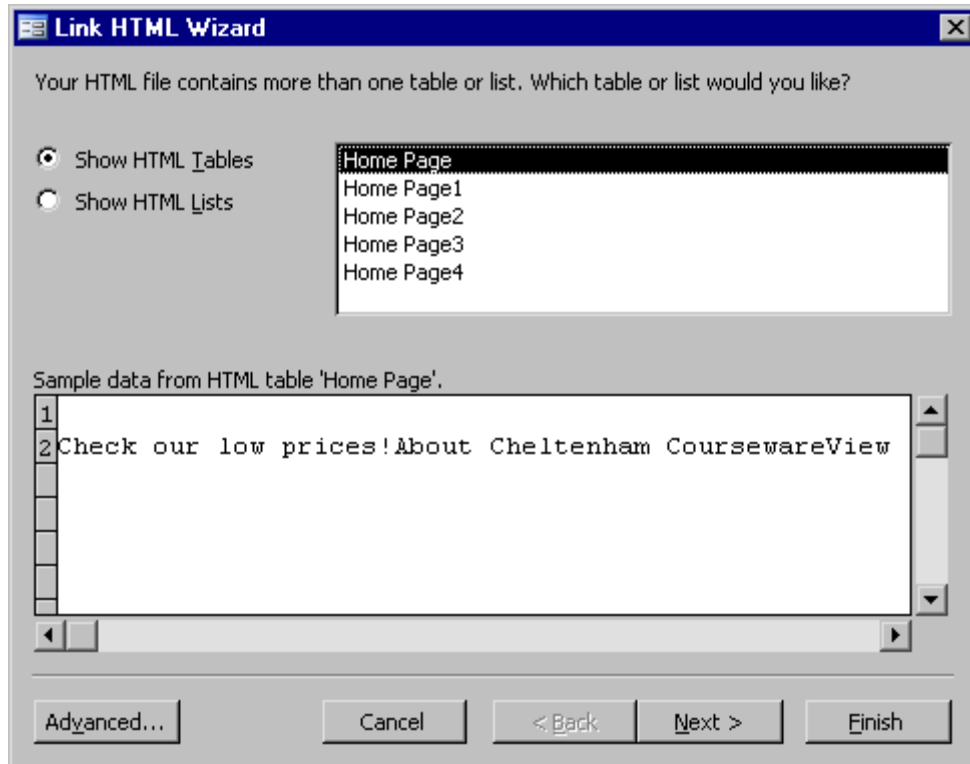


- Click on the **Finish** button.
- Click **OK** on the confirmation pop-up dialog box.

Linking to HTML Files

- Click **Tables** in the **Objects** pane.
- Click the **New** button. This opens the **New Table** dialog box.
- Select Link Table.
- Click **OK**. This opens the **Link** dialog box.
- From the Files of type drop-down menu, select HTML Documents (*.html; *.htm).
- Locate your Access 2003 Intermediate Samples folder.
- Select the Cheltenham Courseware.htm file.
- Click **Link**.
- This opens the **Link HTML Wizard**:

SAMPLE

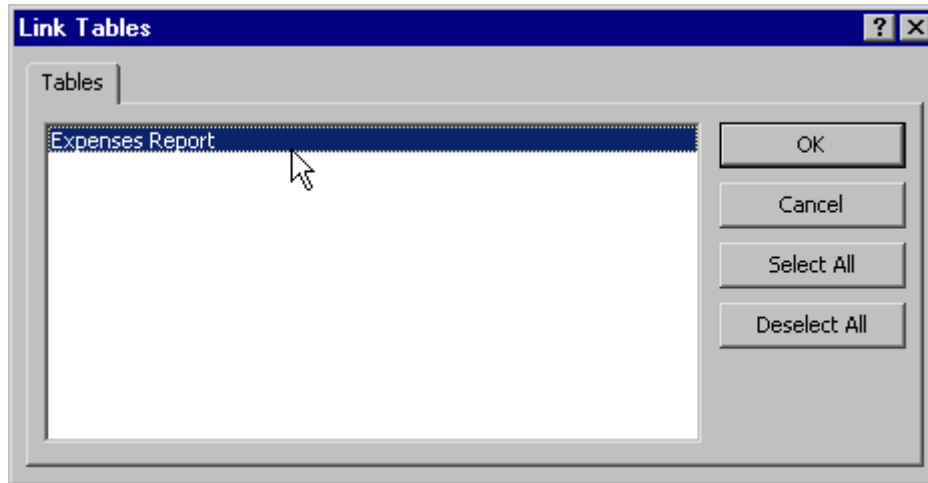


- Click the **Finish** button.
- Click **OK** on the confirmation pop-up dialog box.

Linking to Other Access Databases

- Click **Tables** in the **Objects** pane.
- Click the **New** button. This opens the **New Table** dialog box.
- Select **Link Table**.
- Click **OK**. This opens the **Link** dialog box.
- From the Files of type drop-down menu, select Microsoft Office Access (*.mdb; *.mda; *.mde).
- Locate your Access 2003 Intermediate Samples folder.
- Select the **Data.mdb** file.
- Click **Link**. This opens the **Link Tables** dialog box:

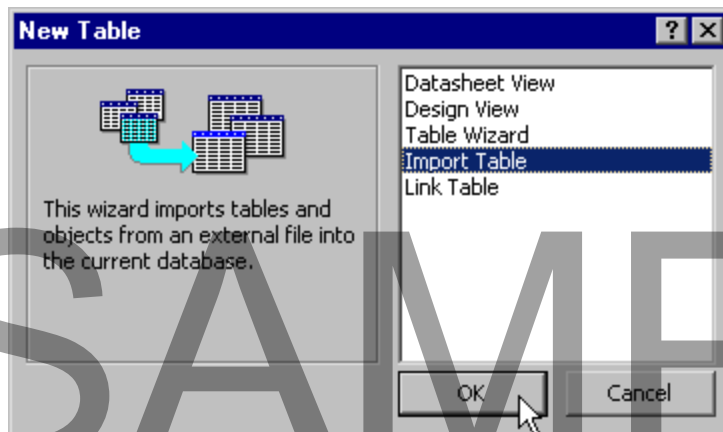
SAMPLE



- Select the **Expenses Report** table.
- Click **OK**.
- Close the Northwind database.

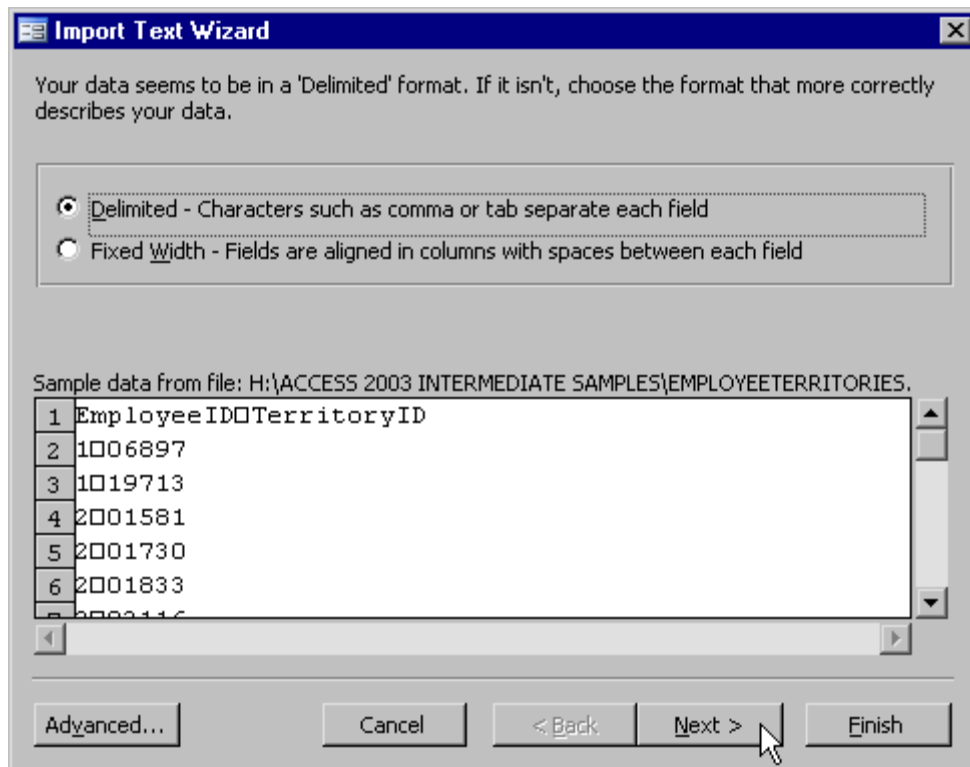
Importing Data into Access

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Tables** in the **Objects** pane.
- Click the **New** button.
- Select **Import Table**:



- Click **OK**.
- This opens the **Import** dialog box.
- From the **Files of type** drop-down menu, select **Text Files (*.txt; *.csv; *.tab; *.asc)**.
- Locate your **Access 2003 Intermediate Samples** folder.
- Select the **EmployeeTerritories.txt** file.
- Click **Import**.
- Click the **Delimited** option button.

- Click **Next**:



- Click the **Tab** option button.
- Check the **First Row Contains Field Names** check box.
- Click **Next**.
- Click the **In a New Table** option button:

SAMPLE

You can store your data in a new table or in an existing table.

Where would you like to store your data?

In a New Table

In an Existing Table:

EmployeeID	TerritoryID
1	06897
1	19713
2	01581
2	01730
2	01833
2	02116
2	02116

Advanced... Cancel < Back Next > Finish

- Click **Next**.
- Accept the defaults and click **Next**:

What delimiter separates your fields? Select the appropriate delimiter and see how your text is affected in the preview below.

Choose the delimiter that separates your fields:

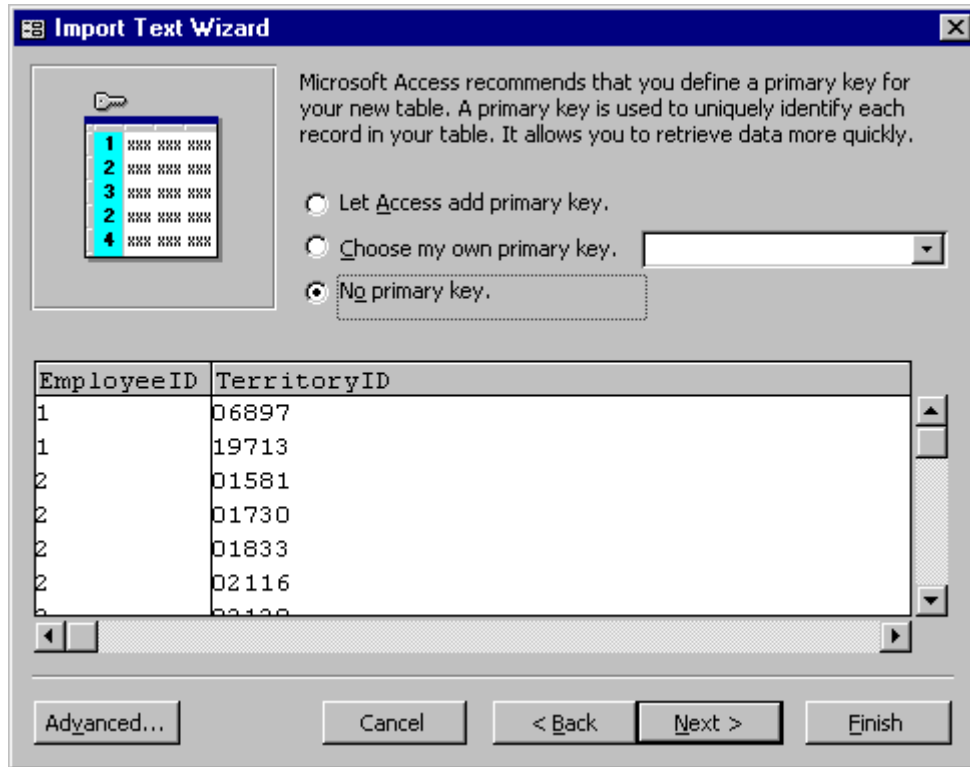
Tab Semicolon Comma Space Other:

First Row Contains Field Names Text Qualifier: {none}

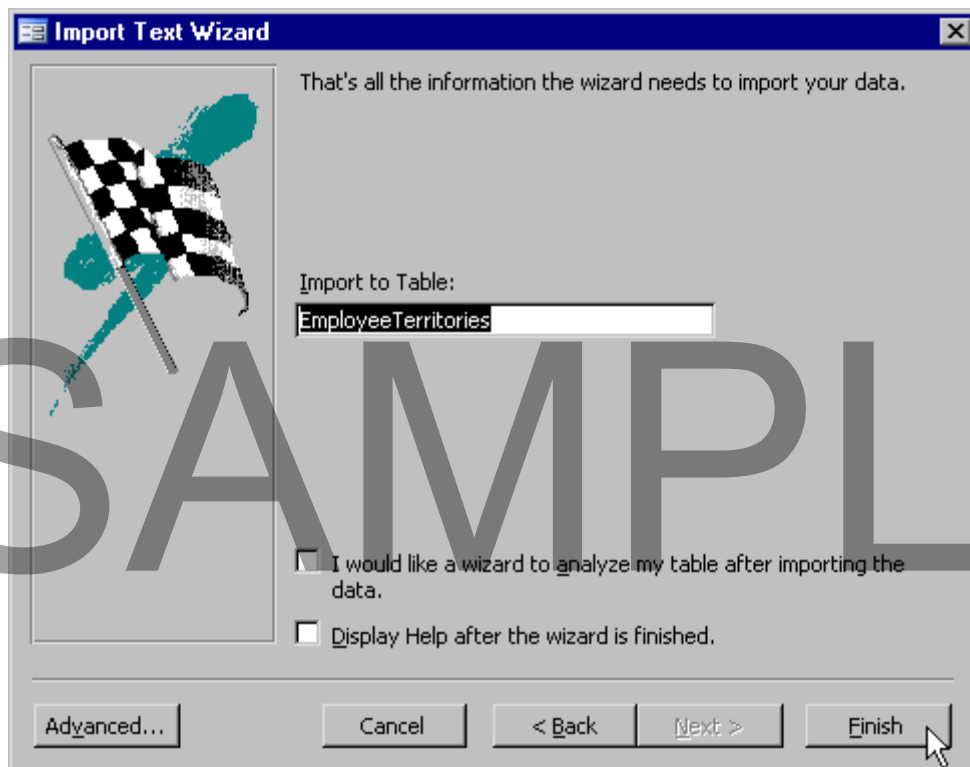
EmployeeID	TerritoryID
1	06897
1	19713
2	01581
2	01730
2	01833
2	02116

Advanced... Cancel < Back Next > Finish

- Select the **No primary key** option button:



- Click **Next**.
- Name the new imported table *EmployeeTerritories*.
- Click **Finish**:



- Click **OK** on the confirmation pop-up dialog box.
- Close the Northwind database.

Importing Data into Access

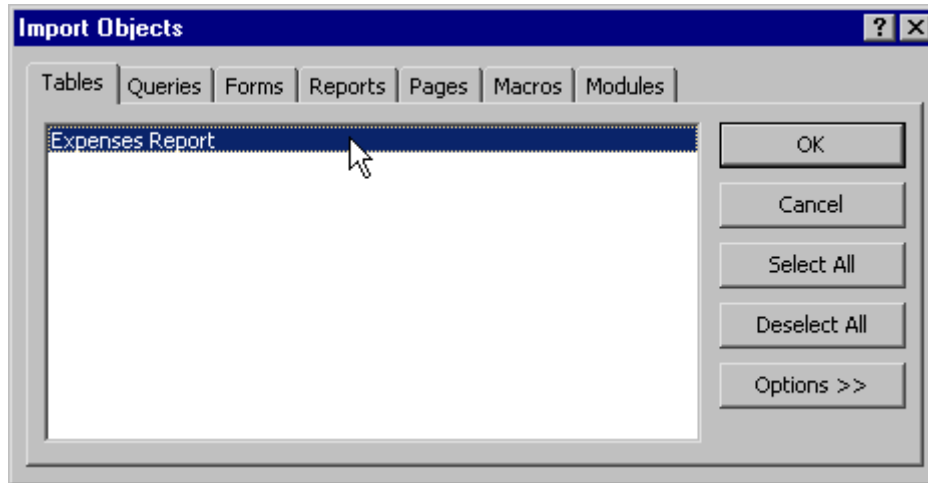
Importing from Excel Files

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Tables** in the **Objects** pane.
- Click the **New** button. This opens the **New Table** dialog box.
- Select Import Table.
- Click **OK**. This opens the **Import** dialog box.
- From the Files of type drop-down menu, select Microsoft Excel (*.xls).
- Locate your Access 2003 Intermediate Samples folder.
- Select the *sales.xls* file.
- Click **Import**.
- Click **Finish** to complete the wizard.
- Click **Yes** on the warning dialog box.
- Click **OK** on the confirmation pop-up dialog box.

Importing from Other Access Databases

- Click **Tables** in the **Objects** pane.
- Click the **New** button. This opens the **New Table** dialog box.
- Select Import Table.
- Click **OK**. This opens the **Import** dialog box.
- From the Files of type drop-down menu, select Microsoft Office Access (*.mdb; *.adp; *.mda; *.mde; *.ade).
- Locate your Access 2003 Intermediate Samples folder.
- Select the *Data.mdb* file.
- Click **Import**. This opens the **Import Objects** dialog box.
- Click on the **Tables** tab.
- Select the **Expenses Report** object to import.
- Click **OK**:

SAMPLE



- Close the Northwind database.

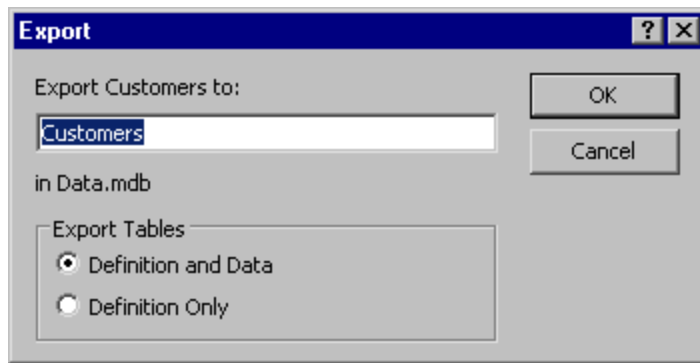
Exporting Data from Access

Exporting to Files

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Select the **Customers** table to export.
- From the main menu, select **File > Export**. This opens the **Export Table To** dialog box.
- From the Save as type drop-down menu, select Microsoft Excel 97-2003 (*.xls).
- Locate your Access 2003 Intermediate Samples folder.
- In the File name field, type *Customers.xls*.
- Click **Export**.

Exporting to Access Databases

- Select the **Customers** table to export.
- From the main menu, select **File > Export**. This opens the **Export Table To** dialog box.
- From the Files of type drop-down menu, select Microsoft Office Access (*.mdb; *.adp; *.mda; *.mde; *.ade).
- Locate your Access 2003 Intermediate Samples folder.
- Select the **Data.mbd** file.
- Click **Export**. This opens the **Export** dialog box:



- Click **OK**.
- Close the Northwind database.

SAMPLE

Building Expressions

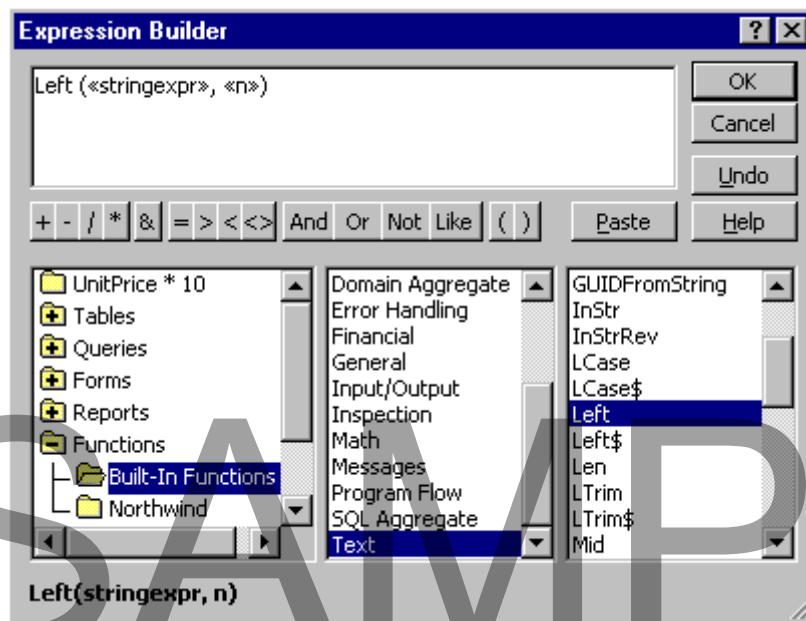
Using the Expression Builder

Using the Expression Builder in Queries

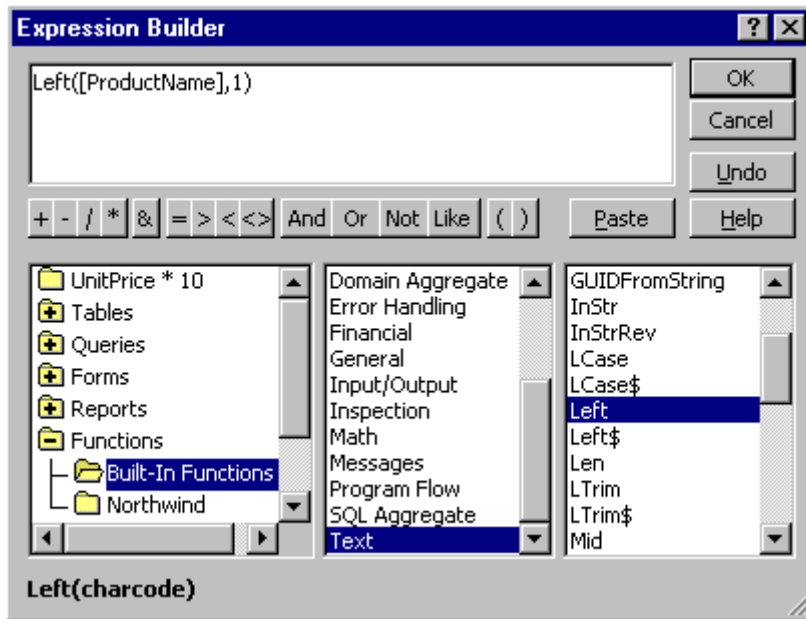
- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Queries** in the **Objects** pane.
- Open the **UnitPrice * 10** query in **Design** view.
- Click in a blank field on the query grid.
- Click the **Build** button on the **Query Design** toolbar:



- In the Expression Builder, double-click the **Functions** folder.
- Click **Built-In Functions**.
- Click **Text**.
- Double-click the **Left** function to add it to the Expression Builder pane:



- Replace **<stringexpr>** with **[ProductName]**.
- Replace **<n>** with **1**:



- Click **OK**.
- Rename the column from **Expr2** to **Rolodex**.
- Change the sort order to **Ascending**:

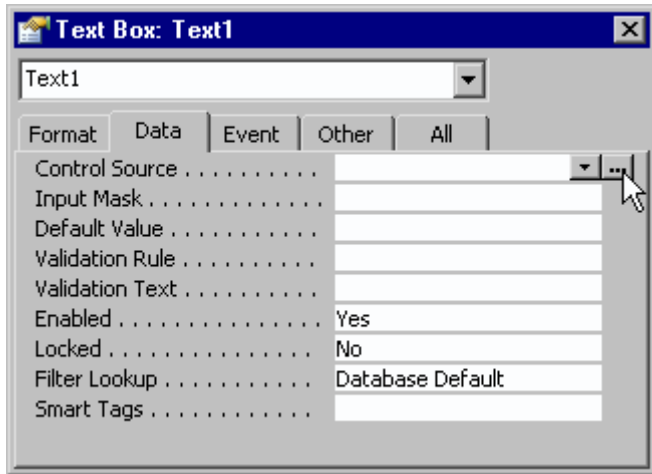
Field:	Rolodex: Left([ProductName],1)
Table:	
Sort:	Ascending
Show:	<input checked="" type="checkbox"/>
Criteria:	
or:	

- **Run** the query.
- Save the changes.
- Close the **UnitPrice * 10** query.

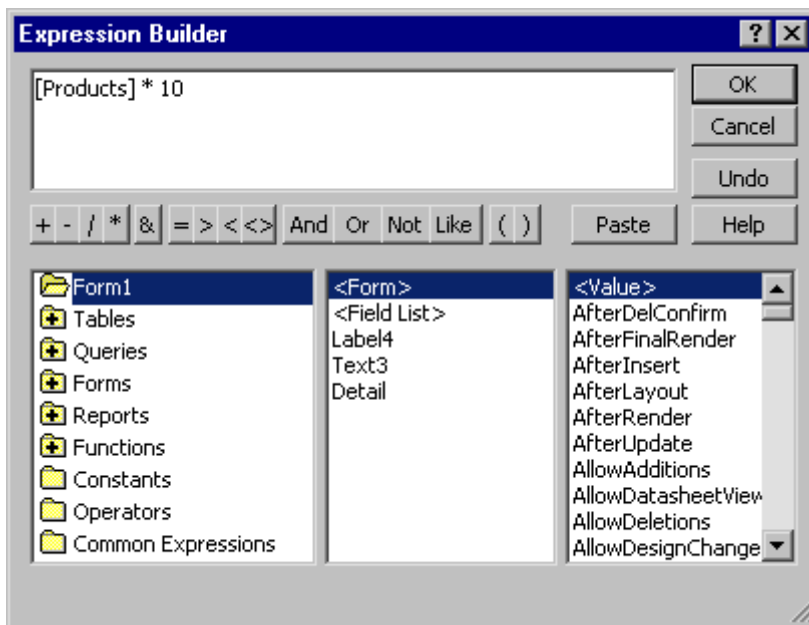
Using the Expression Builder in Forms

- Click **Forms** in the **Objects** pane.
- Open the **Categories** form in **Design** view.
- Double-click on any control in the form.
- Click the **Data** tab.
- Click the ellipses next to the **Control Source** field:

SAMPLE

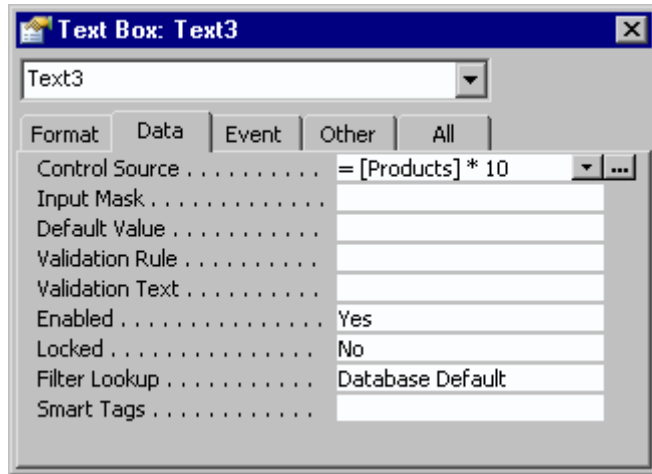


- This opens the Expression Builder.
- Build an expression using an item from the field list. Experiment!:



- Click **OK**.
- Notice the format of the **Control Source** expression:

SAMPLE



- **View** the form to see the results.
- Close the form without saving the changes.

Using the Expression Builder in Reports

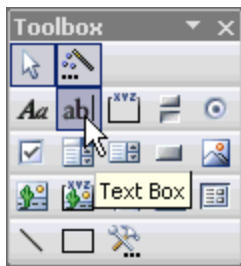
- Click **Reports** in the **Objects** pane.
- Open the Categories and Products form in Design view.
- Double-click on a control in the report.
- Click the **Data** tab.
- Click the ellipses next to the **Control Source** field. This opens the **Expression Builder**.
- Build an expression using an item from the field list. Experiment!
- Click **OK**.
- **View** the report to see the results.
- Close the report without saving the changes.
- Close the Northwind database.

Using Common Built-in Functions

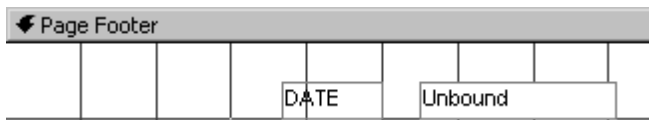
Using Date/Time Functions

- Open the Northwind database.
- In the displayed **Main Switchboard** dialog box, click on the **Display Database Window** button.
- Click **Reports** in the **Objects** pane.
- Open the **Categories and Products** report in Design view.

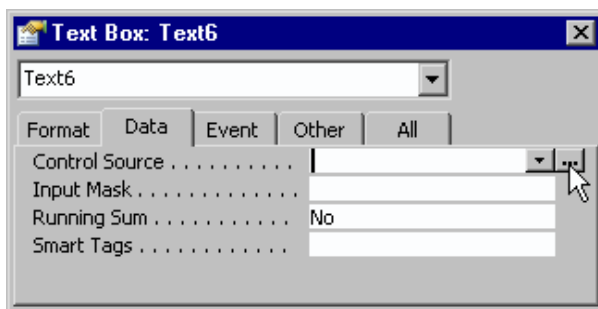
- Click the **Text Box** button on the **Toolbox** toolbar:



- Add a **Text Box** control to the **Page Footer** section of the report.
- Label the new control **DATE**:

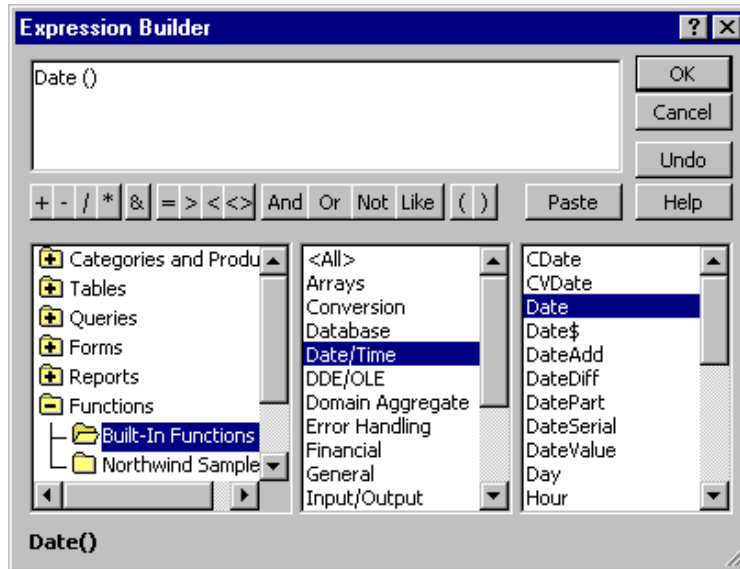


- Double-click on the **unbound** portion of the **DATE** control.
- Click the **Data** tab.
- Click the ellipses next to the **Control Source** field:



- Double-click **Functions**.
- Click **Built-In Functions**.
- Click **Date/Time**.
- Double-click **Date** to add it to the control:

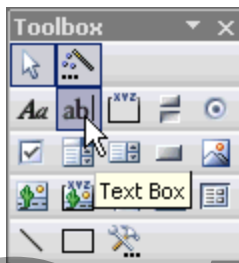
SAMPLE



- Click **OK**.
- Close the dialog box.
- Save the changes to the **Categories and Products** report.
- Close the report.

Using Financial Functions

- Click **Reports** in the **Objects** pane.
- Open the **Categories and Products** report in Design view.
- Click the **Text Box** button on the **Toolbox** toolbar:



- Add a **Text Box** control to the **Page Header** section of the report.
- Double-click on the control.
- Click the **Data** tab.
- Click the ellipses next to the **Control Source** field. This opens the **Expression Builder**.
- From the field list, select **Functions > Built-In Functions > Financial**.
- Scroll through the list of **Financial** functions. Try using the various functions. Experiment!
- Click **OK**.
- Close the report without saving any changes.
- Close the Northwind database and exit Access 2003.