## Access Databases And DataSources Using The DataSet Designer

Creating a New Query

1. Double-click the DataSet.xsd file in Solution Explorer. Then rt. Click on the Grey bar in the designer (CustomersTableAdapter) & choose Add New Query.

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2. Now click Next twice until you reach this screen.

TableAdapter Query Configuration Wizard	
Specify a SQL SELECT statement           The SELECT statement will be used by the query.	
Type your SQL statement or use the Query Builder to construct it. What data should be loaded into the table?	
SELECT CustID, LastName, FirstName, MiddleInit, StreetAddress, City, State, Zip, Tele, Fax FROM Customers ORDER BY LastName	
Query Builder	
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3. Click on Query Builder and click in the Filter column on the lastname row (or whatever field you want to filter on. In that box, type = Like ? + '%' and then click in the area where your SQL is displayed and you will see it update the SQL.

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My new search parameter is now displayed in the Select SQL statement.

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4. Now click Execute query. A dialog appears. Type in part of a last name like "Ande" and you will see only records with the last name that match this string will be displayed.

5. Click OK to continue.

Creating New Queries With The Dataset Designer

6. Click next until you see this next shot. Here you give your Query a name. I called mine FillByLastName. (Write this down. When you code your app, you will refer to this method. Also, under Return a DataTable, type is a name here also that is descriptive. GetbyPattern reminds me we are doing a pattern match not an exact match. This second method creates a new instance of a datatable and fills your records in in. I do not see any reason not to use it...it works so don't mess with it!

TableAdapter Query Configuration Wizard
Choose Methods to Generate The TableAdapter methods load and save data between your application and the database.
Which methods do you want to add to the TableAdapter?
Creates a method that takes a DataTable or DataSet as a parameter and executes the SQL statement or SELECT stored procedure entered on the previous page.
Method name: FillByLastName
✓ <u>R</u> eturn a DataTable
Creates a method that returns a new DataTable filled with the results of the SQL statement or SELECT stored procedure entered on the previous page.
Method name: GetByPattern
< <u>Previous</u> <u>Next</u> > <u>Finish</u> Cancel

7. Click next then finish. You should see your new query/method in the dataset designer. Notice the signature of this new method. It has one parameter (lastname) that it expects when you call it. Even though this is a graphical view, it is creating a method just like the custom ones we have created in other projects. Now all you have to do is call your method to use it.

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Creating New Queries With The Dataset Designer

8. Now we are going to see how to code your method/query so you can return specific records to the grid. In the view below, I added a textbox & button (see search icon). When the type in the part of a last name and click this button, I want to execute my new method. So double-click on the button to make a handler.

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9. In the click event for my button, add this code:

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30 31□ #Region "Find By Last Name"				
32 Private Sub btnSearch_Click(ByVal sender As System.Object, ByVal e As S	ystem.Event	Args) Handle	es btnSearch.Clic	ck 🛛
33				
34 'when they click the search toolbar button, get the records				=
35 Dim name2Find As String = txtSearch.Text.Trim 36				
37 'the Load method fills the tableadapter. It uses a Get method called (	SetDataByLa	stName		
38 'Right-click on the table adapter in the component tray & select edit que				
39 CustomersTableAdapter.Load(_customers_03DataSet.Customers, name				
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41 - End Sub				
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In line 35 I grab what they type in the textbox. In line 39 you tell the table adapter to load the dataset. You pass it the name of the dataset and the table to put the data in (customersDataSet.Customers). Then you pass the search string in this format(customersDataSet.Customers, name2Find).

## **Displaying All Records**

Notice on the form I added a label with the text "Show All". When they click it, I load the dataset with all the records just like I did when the form loads.

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