

What is a DataSet?

A DataSet is a Visual Studio object that holds all the information in a database as a copy of that database. Unlike other objects or controls in Visual Studio, you cannot see the DataSet like you can a button or text box. It's a hidden grid of information stored in your computer's memory. Imagine an invisible, virtual copy of the Access database you're working with—that's what a DataSet is.

So how does a DataSet relate to a Data Adapter? Well, the DataSet (our invisible copy of our database) and the Connection Object (which allows us to link our VB.NET program with the correct database) can't directly "talk" to each other. They require an intermediary, and this is how the Data Adapter comes into play. The Data Adapter serves as a go-between for the Connection object and the DataSet.

To create a DataSet, you merely have to declare it at the top of your Code Editor (beneath "Public Class Form1"). Its syntax is as follows:

```
Dim DataSetName As New DataSet
```

By declaring your DataSet, you're giving yourself the ability to later "fill" it with the information stored in your Access database. You'll also want to follow this DataSet declaration with a declaration of the Data Adapter, whose syntax is shown below.

```
Dim DataAdapterName As OleDb.OleDbDataAdapter
```

```
DataAdapterName = New OleDb.OleDbDataAdapter(sql, con)
```

The first line of this code sets up a reference for our Data Adapter. The third line of code, however, creates this new Data Adapter. The two bracketed items are the SQL string (which, as you'll remember, is the way VB.NET can query the Access database) and the Connection String (which links us to the database in the first place).

For some practice using a DataSet, try your hand at the **DataSet** and **Form Adapter Examples**.