**Data Access Components**

There are three main data access components in Visual Basic.NET that we need in order to retrieve and store data from the database: OleDbConnection, OleDbDataAdapter, and DataSet. Each of these components is located in the Toolbox under Data tab. These components are known as ADO.NET classes.

OleDbConnection

The OleDbConnection component represents an active connection to the database and provides some basic information such as the database name, location of the database, and the database driver to use to connect to the database.

The OleDbConnection connects to OLEDB, which is a database access platform that forms part of Windows. When we connect to OLEDB, we specify a database and database provider to use.

DataSet

The DataSet Component is a cache of data that is stored in memory. We can use it to store data in tables, and using the DataView component we can query the data in various ways. The DataSet is very powerful and stores metadata which includes things like table and column names, data types and the information needed to manage and undo changes to the data.

OleDbDataAdapter

The OleDbDataAdapter serves as a data bridge between the database and our Dataset object. It retrieves data from a database using an OleDbConnection and adds it to a DataSet Component.

The OleDbDataAdapter connects to a database using an OleDbConnection.

OleDbCommand

The OleDbCommand component is used to execute SQL statements against the database. These SQL statements can be statements to select, insert, update, or delete data.

DataView

This component is used to create a customized view of the data in a DataSet.

DataBinding

Data binding means taking data contained in memory and binding it to a control.

The DataGrid Control

A DataGrid Control is a control that is used to display data tables like what we saw when we executed the results of our query in Access.