

CGT 456 Lecture 9

Parameters

SqlParameterCollection class

- The command object works in conjunction with two classes, the first of which is:
 - SqlParameterCollection
- The SqlParameterCollection is accessed through the **Parameters** property

■ Esposito Ch. 10

SqlParameter

- The second is:
 - SqlParameter
- SqlParameter represents a single command parameter stored in the collection.

■ Esposito Ch. 10

SELECT (overview)

```

□ Sql = "SELECT * FROM Products_Lab6 WHERE ProductID = @prodID";
□ myCommand = new SqlCommand(Sql, oConn);
□ myCommand.Parameters.Add(
  new SqlParameter(
    "@prodID", System.Data.SqlDbType.Int, 4));
□ myCommand.Parameters["@prodID"].Value =
  dt.Rows[0][0].ToString();
□ results.DataSource = myCommand.ExecuteReader();
□ results.DataBind();

```

SELECT

```

□ // Create the SQL statement
□ // The @prodID represents a parameter that
□ // serves as a placeholder that's value can
□ // be passed into the SQL statement later.

□ Sql = "SELECT * FROM Products_Lab6 WHERE ProductID = @prodID";

```

SELECT (cont.)

```

□ // Create a new SQL command using
□ // the SQL command and connection object

□ myCommand = new SqlCommand(Sql, oConn);

```

SELECT (cont.)

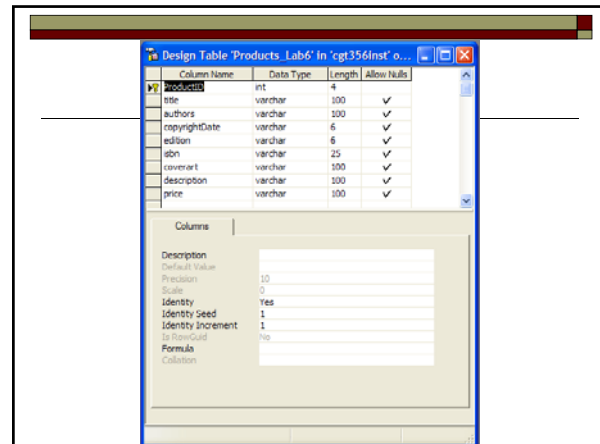
```

□ // Parameters gets the
□ // SqlParameterCollection.
□ // Add a new parameter matching the
□ // parameter(s) used in the above
□ // SQL statement.

□ myCommand.Parameters.Add(
  new SqlParameter(
    "@prodID", System.Data.SqlDbType.Int, 4));

  ■ *The above should all be on one line

```



SELECT (cont.)

```

□ // Assign a value to the @prodID
□ // placeholder in the above SQL statement

□ myCommand.Parameters["@prodID"].Value =
  dt.Rows[0][0].ToString();

  ■ *The above should all be on one line

```

SELECT (cont.)

```

□ // set the data source
□ results.DataSource = myCommand.ExecuteReader();

□ // bind the data source to the DataGrid
□ results.DataBind();

```

SELECT (overview)

```

□ Sql = "SELECT * FROM Products_Lab6 WHERE ProductID = @prodID";

□ myCommand = new SqlCommand(Sql, oConn);

□ myCommand.Parameters.Add(
  new SqlParameter(
    "@prodID", System.Data.SqlDbType.Int, 4));

□ myCommand.Parameters["@prodID"].Value =
  dt.Rows[0][0].ToString();

□ results.DataSource = myCommand.ExecuteReader();

□ results.DataBind();

```

INSERT (overview)

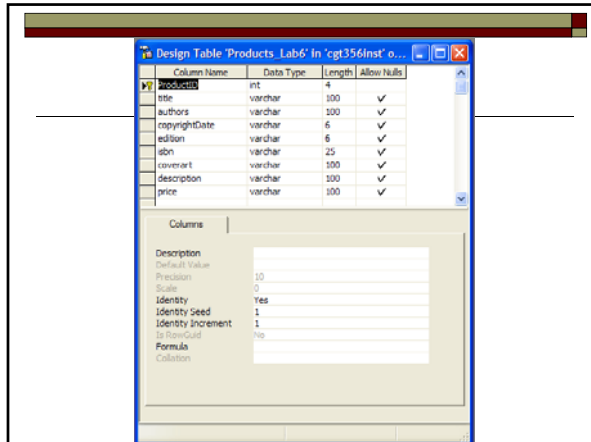
```

□ Sql = "INSERT INTO Products_Lab6 (title, authors, copyrightDate, edition,
  isbn, coverart, description, price) VALUES(@title, @authors,
  @copyrightDate, @edition, @isbn, @coverart, @description, @price)";

□ oConn = new SqlConnection(ConnStr);
□ myCommand = new SqlCommand(Sql, oConn);

□ myCommand.Parameters.Add(
  new SqlParameter("@title", System.Data.SqlDbType.VarChar, 100));
□ myCommand.Parameters.Add(
  new SqlParameter("@authors", System.Data.SqlDbType.VarChar, 100));
□ myCommand.Parameters.Add(
  new SqlParameter("@copyrightDate", System.Data.SqlDbType.VarChar, 6));
□ myCommand.Parameters.Add(
  new SqlParameter("@edition", System.Data.SqlDbType.VarChar, 6));
□ myCommand.Parameters.Add(
  new SqlParameter("@isbn", System.Data.SqlDbType.VarChar, 25));
□ myCommand.Parameters.Add(
  new SqlParameter("@coverart", System.Data.SqlDbType.VarChar, 100));
□ myCommand.Parameters.Add(
  new SqlParameter("@description", System.Data.SqlDbType.VarChar, 100));
□ myCommand.Parameters.Add(
  new SqlParameter("@price", System.Data.SqlDbType.VarChar, 100));

```



INSERT (overview cont.)

```

□ myCommand.Parameters["@title"].Value      = "Microsoft Visual";
□ myCommand.Parameters["@authors"].Value    = "Jon Jagger";
□ myCommand.Parameters["@copyrightDate"].Value = "2003";
□ myCommand.Parameters["@edition"].Value    = "2003";
□ myCommand.Parameters["@isbn"].Value       = "0735619093";
□ myCommand.Parameters["@coverart"].Value   = "Microsoft";
□ myCommand.Parameters["@description"].Value = "Teach yourself";
□ myCommand.Parameters["@price"].Value     = "26.39";

□ oConn.Open();
□ myCommand.ExecuteNonQuery();
□ oConn.Close();

□ Select_Click(Source, E);

```

INSERT

```

□ // The @xxxx represents parameters that
□ // serve as a placeholders thats value
□ // can be passed into the SQL statement
□ // later.

□ Sql = "INSERT INTO Products_Lab6 (title,
  authors, copyrightDate, edition, isbn,
  coverart, description, price)
  VALUES(@title, @authors, @copyrightDate,
  @edition, @isbn, @coverart, @description,
  @price)";

  *The above should all be on one line

```

INSERT (cont.)

```

□ // Create a new connection object using
□ // the connection string above.
□ // oConn represents an open connection to
□ // a SQL Server database.

□ oConn = new SqlConnection(ConnStr);

```

INSERT (cont.)

```

□ // Create a new SQL command using the SQL
□ // command and connection object.
□ // myCommand represents a SQL statement
□ // or stored procedure to execute
□ // against a SQL Server database.

□ myCommand = new SqlCommand(Sql, oConn);

```

INSERT (cont.)

```

□ // Parameters gets the
□ // SqlParameterCollection.
□ // Add a new parameter matching the
□ // parameter(s) used in the above
□ // SQL statement

□ myCommand.Parameters.Add(
  new SqlParameter("@title", System.Data.SqlDbType.VarChar, 100));

```

INSERT (cont.)

```

myCommand.Parameters.Add(
    new SqlParameter("@authors", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@copyrightDate", System.Data.SqlDbType.VarChar, 6));
myCommand.Parameters.Add(
    new SqlParameter("@edition", System.Data.SqlDbType.VarChar, 6));
myCommand.Parameters.Add(
    new SqlParameter("@isbn", System.Data.SqlDbType.VarChar, 25));
myCommand.Parameters.Add(
    new SqlParameter("@coverart", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@description", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@price", System.Data.SqlDbType.VarChar, 100));

```

INSERT (cont.)

```

// Assign a value to the placeholders in the
// above SQL statement
myCommand.Parameters["@title"].Value      = "Microsoft Visual";
myCommand.Parameters["@authors"].Value    = "Jon Jagger";
myCommand.Parameters["@copyrightDate"].Value = "2003";
myCommand.Parameters["@edition"].Value    = "2003";
myCommand.Parameters["@isbn"].Value       = "0735619093";
myCommand.Parameters["@coverart"].Value   = "Microsoft";
myCommand.Parameters["@description"].Value = "Teach yourself";
myCommand.Parameters["@price"].Value     = "26.39";

```

INSERT (cont.)

```

// Open the connection to the database

oConn.Open();

// Execute the SQL statement against the
// connection. ExecuteNonQuery will
// return the number of rows affected,
// but does not return a recordset.

myCommand.ExecuteNonQuery();

```

INSERT (cont.)

```

// Close the connection to the database

oConn.Close();

// Call the Select_Click() function to
// redisplay the data in the browser.

Select_Click(Source, E);

```

INSERT (overview)

```

Sql = "INSERT INTO Products_Lab6 (title, authors, copyrightDate, edition,
isbn, coverart, description, price) VALUES(@title, @authors,
@copyrightDate, @edition, @isbn, @coverart, @description, @price)";
oConn = new SqlConnection(ConnStr);
myCommand = new SqlCommand(Sql, oConn);

myCommand.Parameters.Add(
    new SqlParameter("@title", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@authors", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@copyrightDate", System.Data.SqlDbType.VarChar, 6));
myCommand.Parameters.Add(
    new SqlParameter("@edition", System.Data.SqlDbType.VarChar, 6));
myCommand.Parameters.Add(
    new SqlParameter("@isbn", System.Data.SqlDbType.VarChar, 25));
myCommand.Parameters.Add(
    new SqlParameter("@coverart", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@description", System.Data.SqlDbType.VarChar, 100));
myCommand.Parameters.Add(
    new SqlParameter("@price", System.Data.SqlDbType.VarChar, 100));

```

INSERT (overview cont.)

```

myCommand.Parameters["@title"].Value      = "Microsoft Visual";
myCommand.Parameters["@authors"].Value    = "Jon Jagger";
myCommand.Parameters["@copyrightDate"].Value = "2003";
myCommand.Parameters["@edition"].Value    = "2003";
myCommand.Parameters["@isbn"].Value       = "0735619093";
myCommand.Parameters["@coverart"].Value   = "Microsoft";
myCommand.Parameters["@description"].Value = "Teach yourself";
myCommand.Parameters["@price"].Value     = "26.39";

oConn.Open();
myCommand.ExecuteNonQuery();
oConn.Close();

Select_Click(Source, E);

```