Beginning MYSQL 5.0

With

Visual Studio.NET 2005

By

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Welcome to the Wonderful of MYSQL 5, a phenomenal release in the History of MYSQL Development.

There are a host of features to discuss, but due to the audience knowledge in mind, I will be discussing only the newer features of the MYSQL Database 5.0.

In this tutorial, I will dive into the nitty gritties of MYSQL 5 Application Development using the **MYSQL Connector for .NET for Visual Studio.NET 2005** and build a simple **Database Application using VC# and MYSQL 5.**

This tutorial is a Level 200 session, which means that pre-requisite knowledge of the products is necessary.

System Requirements:

A basic P4 Machine with 512 MB RAM and about 40 GB HDD, a pointing device, A keyboard and a monitor.

Software Requirements.

Development Software

 Windows 2000 and above.

Microsoft Visual Studio.NET 2005 (Professional or Team System).

(Any edition having C# language support).

Database Software

MySQL Server 5.0 RC Download Link

http://dev.mysql.com/downloads/mysql/5.0.html

Graphical User Interface tools to help MySQL Users

MySQL Administrator 1.1

http://dev.mysql.com/downloads/administrator/1.1.html

MySQL Query Browser 1.1

http://dev.mysql.com/downloads/query-browser/1.1.html

http://sqlmanager.net/products/mysql/manager/download

MySQL .NET and ODBC Connectors for connecting to .NET

ODBC Driver

http://dev.mysql.com/downloads/connector/odbc/3.51.html

.NET Data Provider Driver

http://dev.mysql.com/downloads/connector/net/1.0.html

5) Finally the urge to learn new things and adapt accordingly.

Now that we have all the information and tools needed,
lets build our Application and write some Code.

Building our Database.
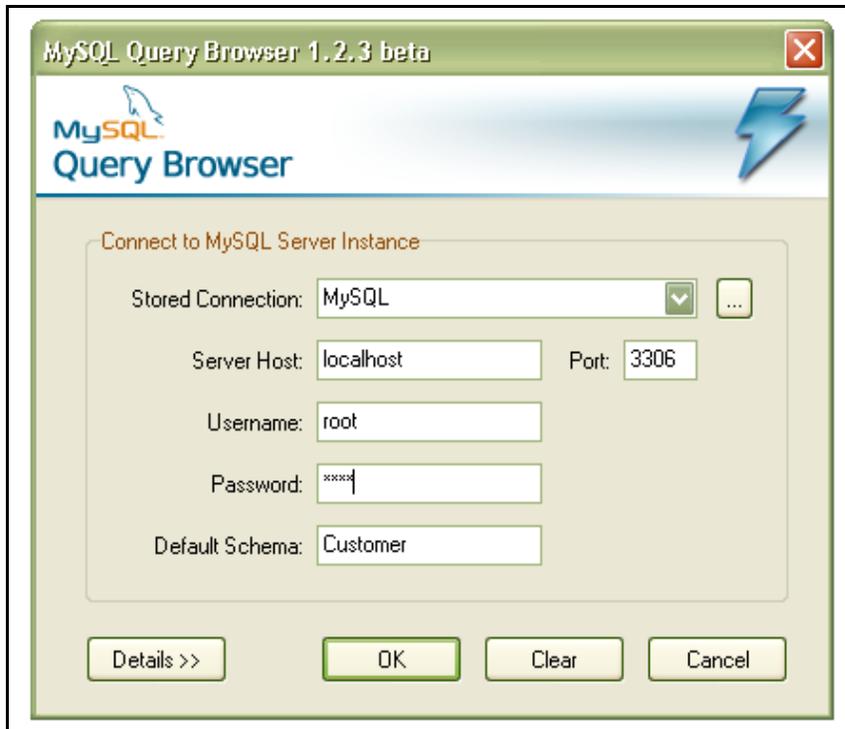
Create a database called Customer.

```
create database Customer;
```

Create a table called Clients

```
create table Clients
(
ClientID int primary key,
ClientName varchar(50),
ClientEmail nvarchar(70)
);
```

To create the above database and table, I have chosen to use the new MySQL Query Browser.

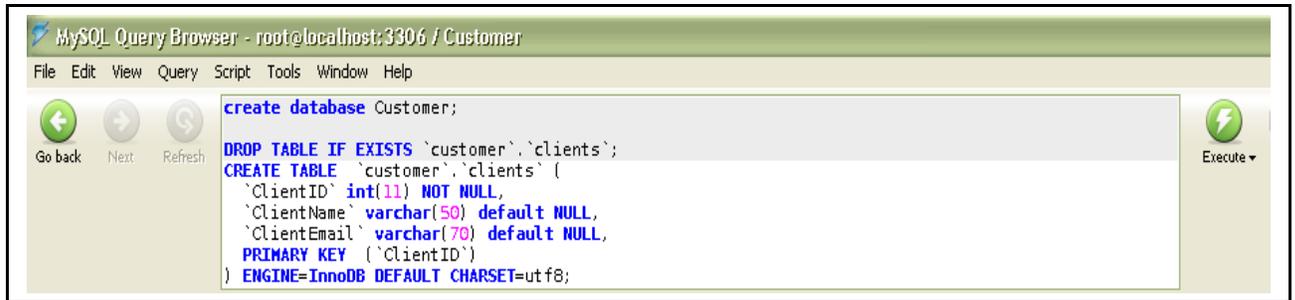In the figure shown below, is the splash screen for the Query Browser.

MySQL Query Browser

This is one of the best tools ever for writing from basic SQL Statements to stored procs, triggers and UDFs.

In the screen above, you can choose to enter the following info.

- *Server Host: Localhost(By default) or your MySQL Server Name.*

- *Username: your mysql username.*

- *Password: your mysql password.*

Next once the connection has been established you will see a screen as shown below.


```
MySQL Query Browser - root@localhost:3306 / Customer
File  Edit  View  Query  Script  Tools  Window  Help

create database Customer;

DROP TABLE IF EXISTS `customer`.`clients`;
CREATE TABLE  `customer`.`clients` (
  `ClientID` int(11) NOT NULL,
  `ClientName` varchar(50) default NULL,
  `ClientEmail` varchar(70) default NULL,
  PRIMARY KEY  (`ClientID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

Query Browser Screen

This screen enables one to create databases, tables, stored procs, triggers and UDF and execute many of the MySQL built-in functions.

You can refer the code snippet above to create the database and table.

Now that our database and table is created we can build our .NET application and fill data into this table called client with .NET

To make sure our Application will perform as expected, please make sure all the software requirements are installed and ready to go.

Our current objective is to just get some data from our MySQL Table that's it!

We shall now launch Visual Studio 2005 and follow these steps to build our application.

1. Click on Start → Microsoft Visual Studio 2005 → Microsoft Visual Studio 2005

2. Now click on File → New Project. Enter the details as shown in the figure below.
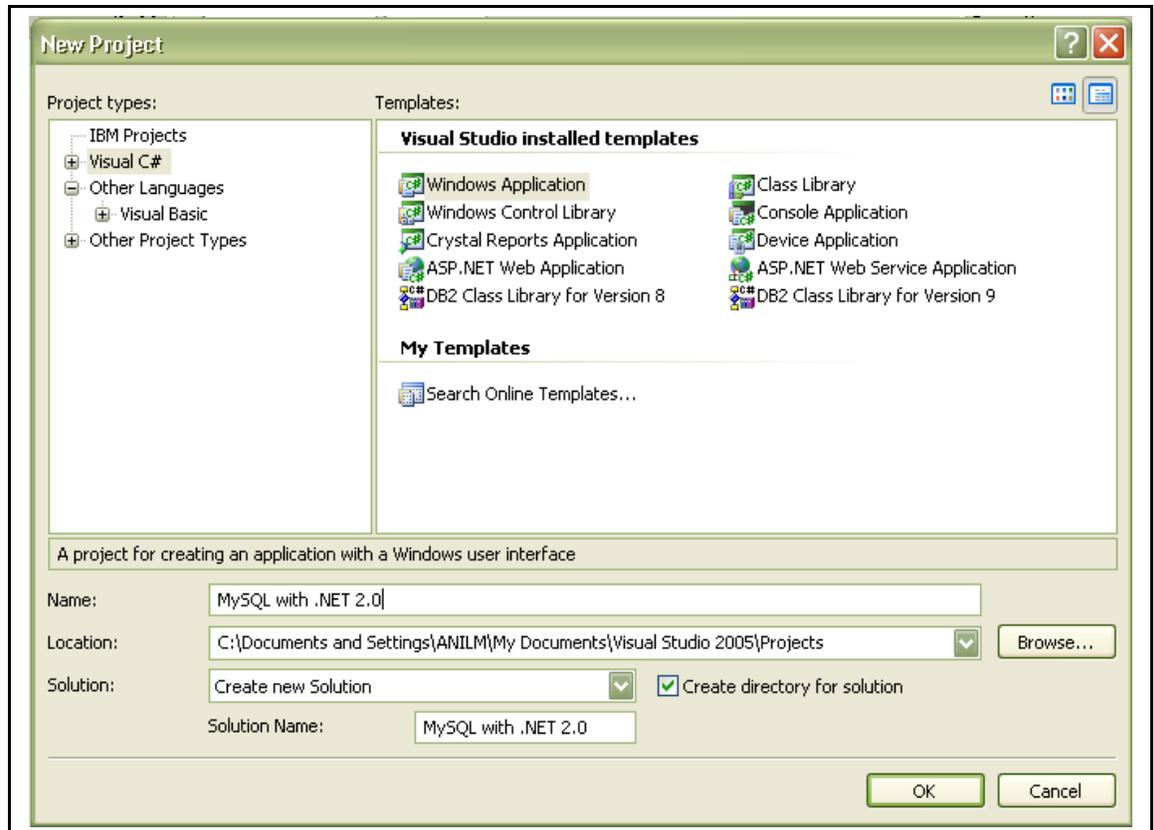
Enter the name: MySQL with .NET 2.0 or a name of your choice.

3. Next we shall drag and drop the following controls on to the form.
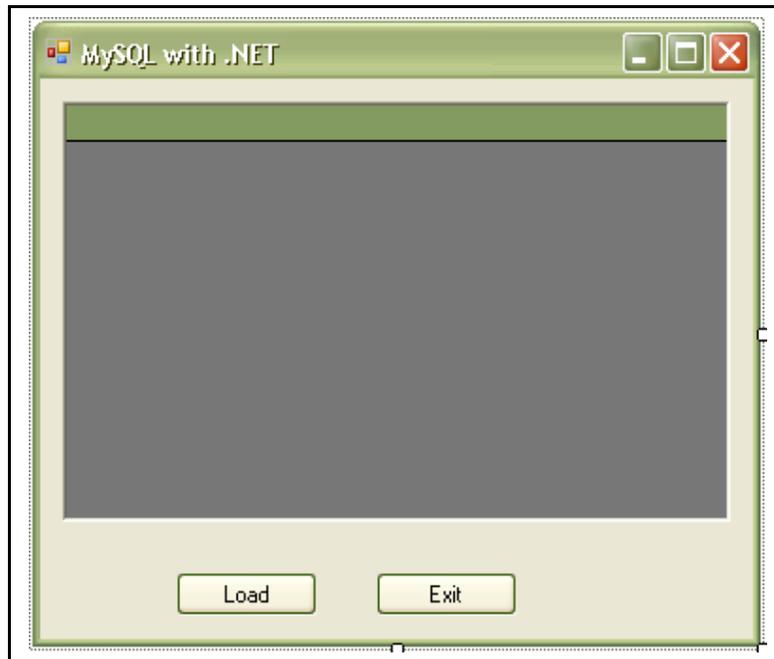
   Place two Buttons:

   Name: Load and Exit

   A Datagrid control. Now in VS 2005, the Datagrid control is at first not visible in the data tab of the Toolbox. To add the Datagrid control right click on the Toolbox and choose Add Items → And choose the Datagrid control as shown in the figure below.
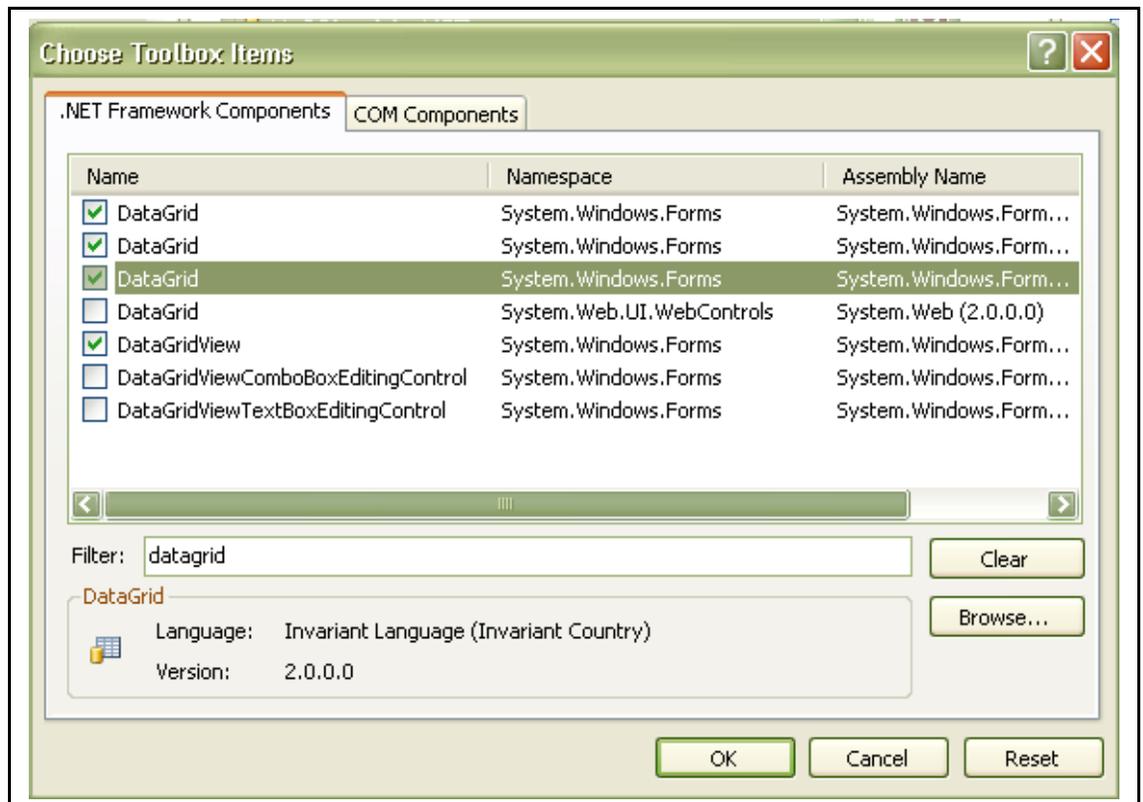
4. Now that we have all our controls placed on the form, we are almost done.

5. Finally we have a screen as shown below.

Sample Form

In this application, we have two buttons, Load and Exit. The Load button will enable us to view the client list from our table Clients.

The exit button, will help us to exit from the application.
The code needed to get started are given below.

1. Please import the following Reference to your project.
   from the following location where you have installed your MySQL Connector for .NET. Since we are using Visual Studio.NET 2005, we should import the .NET 2.0 version.
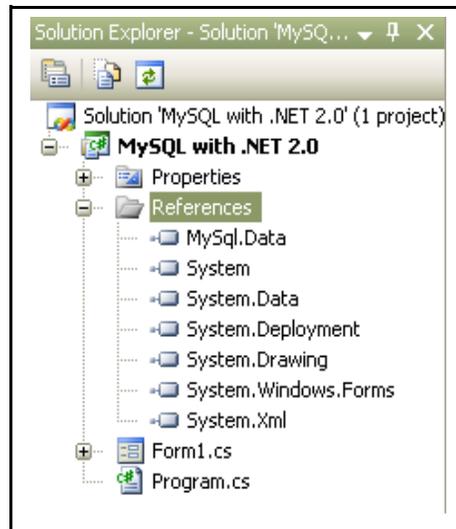
   x:\Program Files\MySQL\MySQL Connector Net 1.0.7\bin\.NET 2.0\MySql.Data.dll

   Replace the x with your drive letter.

This is shown in the figure below.
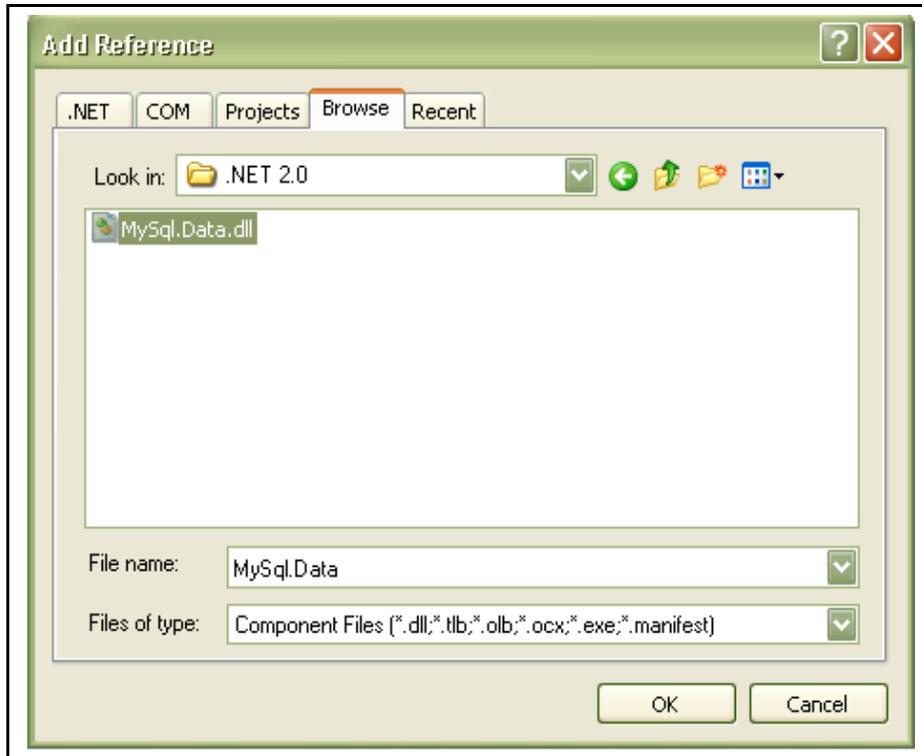
2. Once the reference is added in the project, you will also have to import the namespace in our form.

Next type Using MYSQL.Data.MySQLClient in the Code Window

We are now set to code our application.

Now type the following code for the Load Button

```csharp
//Load the Guest List

public void LoadGuests()
{
    try
    {
        //create a new mysqlconnection

        MySqlConnection mycon = new MySqlConnection("datasource=localhost;username=your userid;password=your password;database=Customer");

        //create a mysql DataAdapter

        MySqlDataAdapter myadp = new MySqlDataAdapter("Select * from clients", mycon);

        //create a dataset

        DataSet myds = new DataSet();

        //now fill and bind the DataGrid

        myadp.Fill(myds, "clients");

        dataGrid1.DataSource = myds.Tables["clients"].DefaultView;

        dataGrid1.SetDataBinding(myds, "clients");

    }
    catch (MySqlException ex)
    {
        MessageBox.Show(ex.Message);
    }


}
```

```csharp
private void btnLoad_Click_1(object sender, EventArgs e)
{
    LoadGuests();

}
```
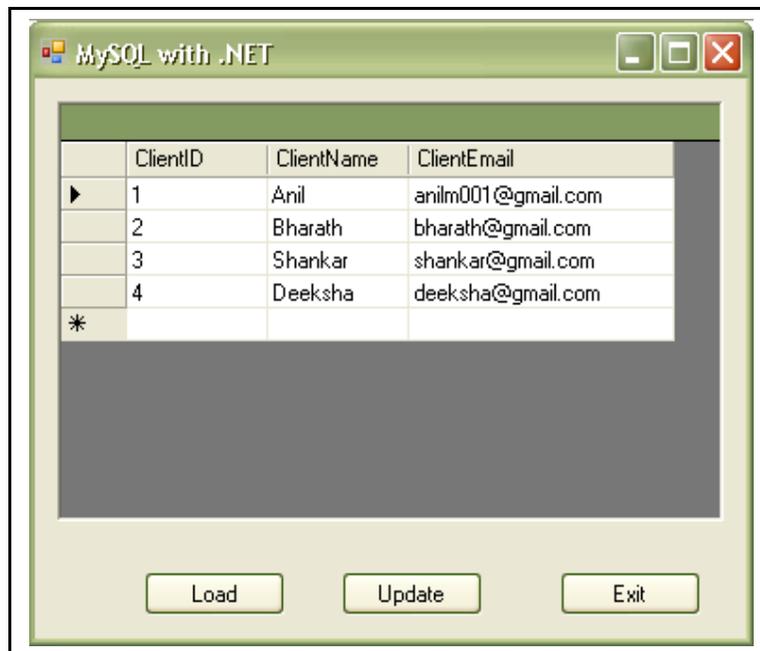
Now type the following code for the Exit Button

```
private void btnExit_Click_1(object sender, EventArgs e)
    {
        this.Close();

    }
```

After typing all of the above code in the respective buttons.

Press F5 now.

And View the Result as shown in Figure 1.2

Wow !!! wasn't that easy, MySQL has a lot more features to offer its wide user base and corporate customers.

I hope you have enjoyed learning MySQL with me as much as I have enjoyed writing about it ☺.

Please do drop me a line and let me know your feedback on the article, or anything in general with respect to databases ☺.

Please feel free to mail me your comments and valuable inputs on how I can write better in MYSQL and .NET.

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