(T1)自動生成LinqToSQL搭配AspNetWebForm。討論SqlProfiler監視資料庫  
CourseGUID: 5ba9a6fe-7475-4b0c-8b99-bbcf7f5e2e1c  
=======================================================================  
(T1)自動生成LinqToSQL搭配AspNetWebForm。討論SqlProfiler監視資料庫  
=======================================================================  
0 Summary

-----------

1. Web Form Application - Linq Query

1.1. TSQL

1.2. Set up SQL Authentication

1.3. Create Web Application

1.4. Code

1.4.1. Web.config

1.4.2. WebForm1.aspx

1.4.3. WebForm1.aspx.cs

-----------

2. Linq to SQL

2.1. Add Connection

2.2. DataClasses1.dbml

2.3. WebForm2

2.3.1. WebForm2.aspx

2.3.2. WebForm2.aspx.cs

2.3.3. SQL Profiler

2.4. WebForm3

2.4.1. WebForm3.aspx

2.3.2. WebForm3.aspx.cs  
=======================================================================

0 Summary

1.

1.1.

Language Integrated整體 Query (LINQ) is a component between the LINQ query and the actual data source which includes SQL Server, XML documents, Objects in memory etc.

E.g. Linq to SQL provider can convert a Linq query to TSQL.

1.2.

LINQ query can be written by any .NET supported programming language, and it provides compile time error checking.

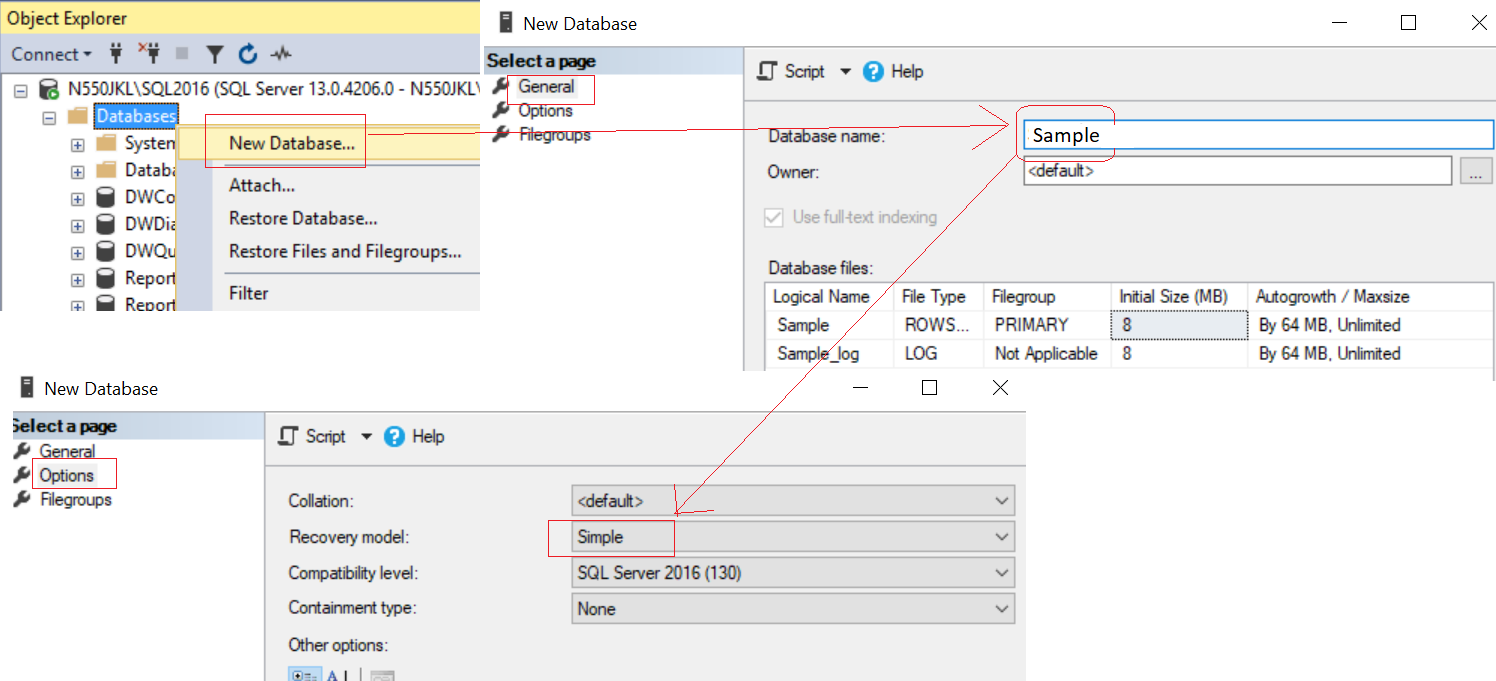
1. Web Form Application - Linq Query

1.1. TSQL

Database --> Right Click --> New Database -->

Database Name : Sample

Options --> Recovery Model : Simple



--Create an Sample DataBase and Run the following TSQL

Create Table Gamer

(

     Id int primary key IDENTITY(1,1),

     Name nvarchar(100),

     Gender nvarchar(50)

)

GO

Insert into Gamer values ('Name01', 'Male')

Insert into Gamer values ('Name02', 'Female')

Insert into Gamer values ('Name03', 'Male')

Insert into Gamer values ('Name04', 'Female')

Insert into Gamer values ('Name05', 'Female')

GO

1.2. Set up SQL Authentication

In SQL server

Object Explorer --> Security --> Logins --> New Logins

-->

General Tab

Login Name :

**Tester**

Password:

**1234**

Default Database:

**Sample**

-->

Server Roles Tab

Select

**sysadmin**

-->

User Mapping Tab

Select **Sample**

Select every Roles.





Graphical user interface, text, application

Description automatically generated



1.3. Create Web Application

Open Visual Studio, I am currently using VS2017

If you don't have it, you may following the instruction here to download.

<http://ithandyguytutorial.blogspot.com/2017/10/ch00install-visual-studio-2017-offline.html>

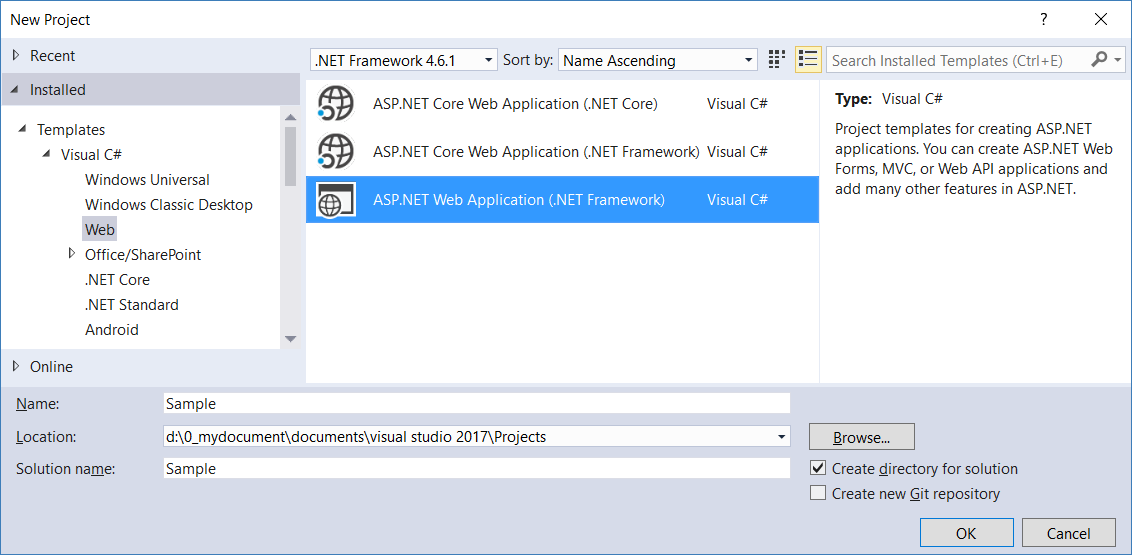
New Project --> Web --> ASP.NET **Web Application (.Net Framework)**

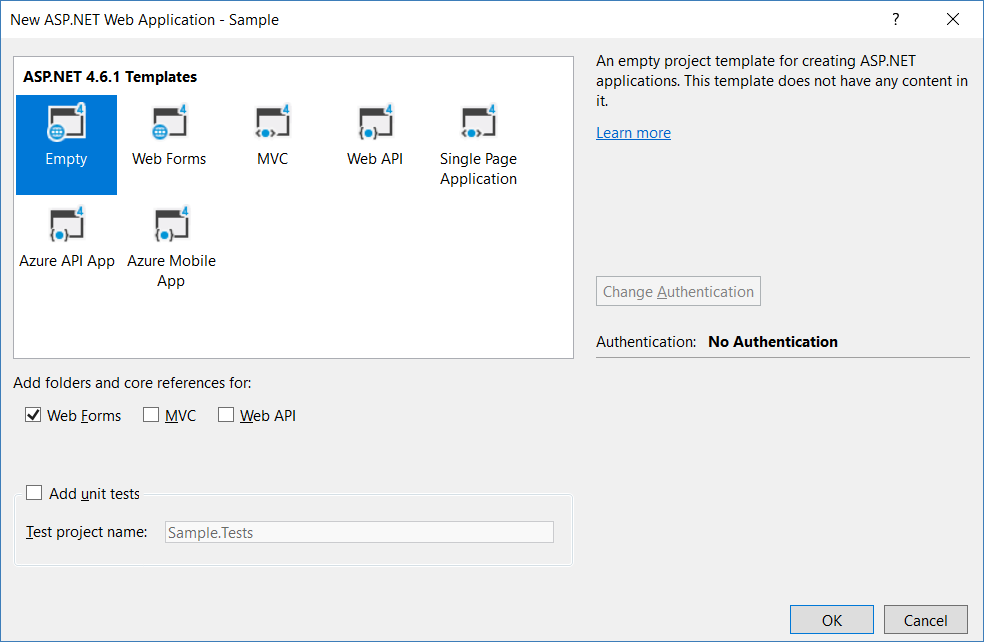
-->

Name:

**Sample**

--> **Empty** --> Select "**Web Forms**"  --> OK





1.4. Code

1.4.1. Web.config

Add connection String

<configuration>

  <connectionStrings>

    <add name="SampleConnectionString" connectionString="Data Source=N550JKL\SQL2016;Initial Catalog=Sample;User ID=Tester;Password=1234"

        providerName="System.Data.SqlClient" />

  </connectionStrings>

Graphical user interface, text, application

Description automatically generated

1.4.2. WebForm1.aspx

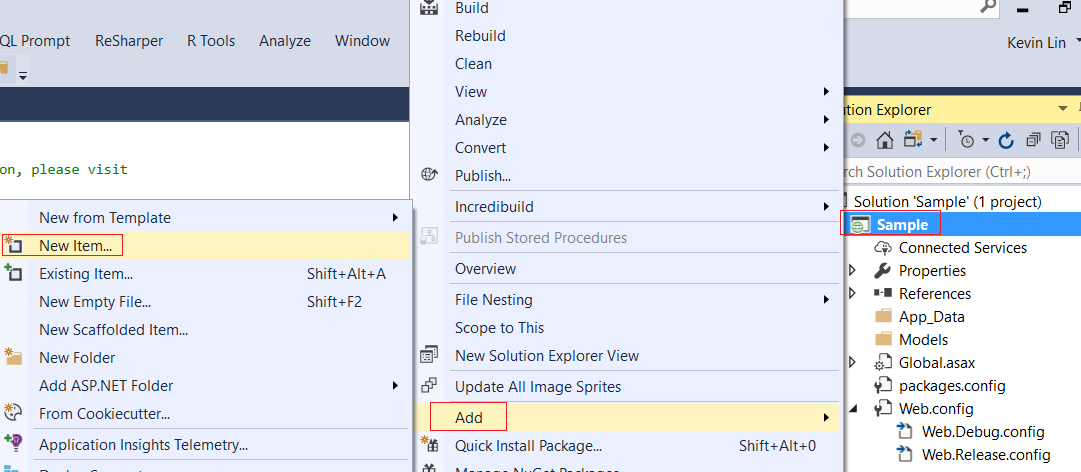
ProjectName --> Right Click --> Add --> New Item...

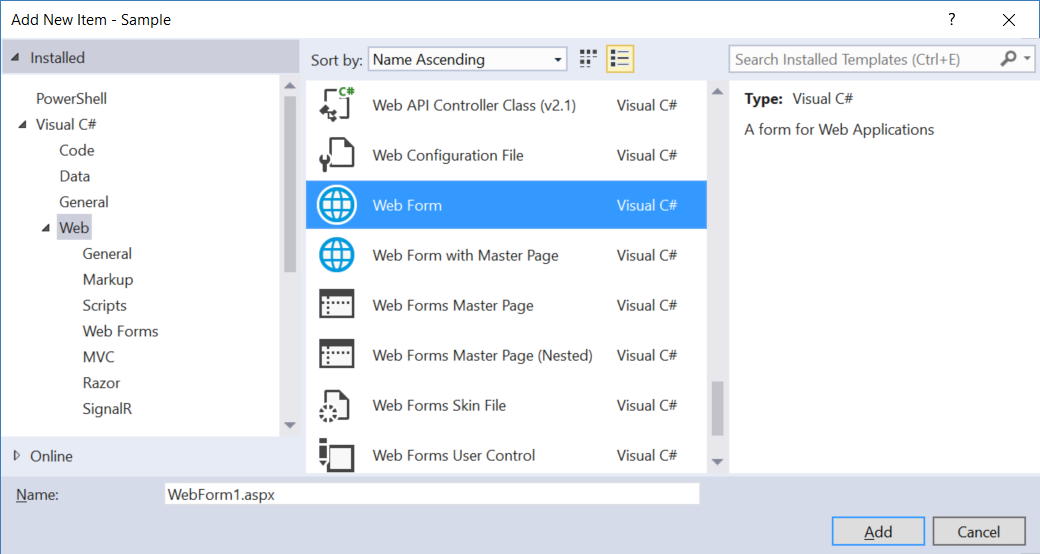
-->

**WebForm**

Name :

**WebForm1.aspx**





<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="Sample.WebForm1" %>

<!DOCTYPE html>

<html xmlns="<http://www.w3.org/1999/xhtml>">

<head runat="server">

    <title></title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            <asp:GridView ID="GridView1" runat="server"></asp:GridView>

        </div>

    </form>

</body>

</html>

1.4.3. WebForm1.aspx.cs

using System;

using System.Collections.Generic;

using System.Configuration;

using System.Data.SqlClient;

namespace Sample

{

    public partial class WebForm1 : System.Web.UI.Page

    {

        protected void Page\_Load(object sender, EventArgs e)

        {

            string cs = ConfigurationManager.ConnectionStrings["SampleConnectionString"].ConnectionString;

            SqlConnection sqlConnection = new SqlConnection(cs);

            SqlCommand sqlCommand = new SqlCommand

                ("Select Id, Name, Gender from Gamer where Gender='Female'", sqlConnection);

            List<GamerA> listGamers = new List<GamerA>();

            sqlConnection.Open();

            SqlDataReader sqlDataReader = sqlCommand.ExecuteReader();

            while (sqlDataReader.Read())

            {

                GamerA gamerItem = new GamerA();

                gamerItem.Id = Convert.ToInt32(sqlDataReader["Id"]);

                gamerItem.Name = sqlDataReader["Name"].ToString();

                gamerItem.Gender = sqlDataReader["Gender"].ToString();

                listGamers.Add(gamerItem);

            }

            sqlConnection.Close();

            GridView1.DataSource = listGamers;

            GridView1.DataBind();

        }

    }

    public class GamerA

    {

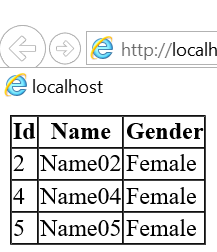
        public int Id { get; set; }

        public string Name { get; set; }

        public string Gender { get; set; }

    }

}



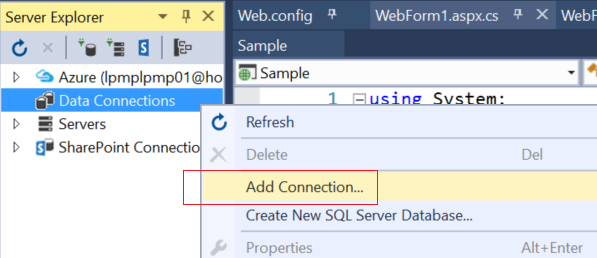
2. Linq to SQL

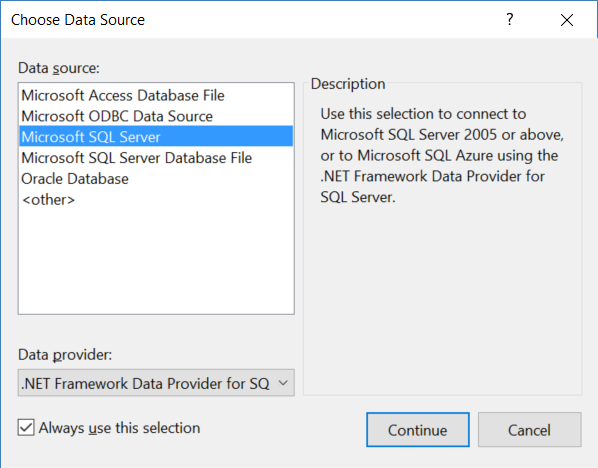
2.1. Add Connection

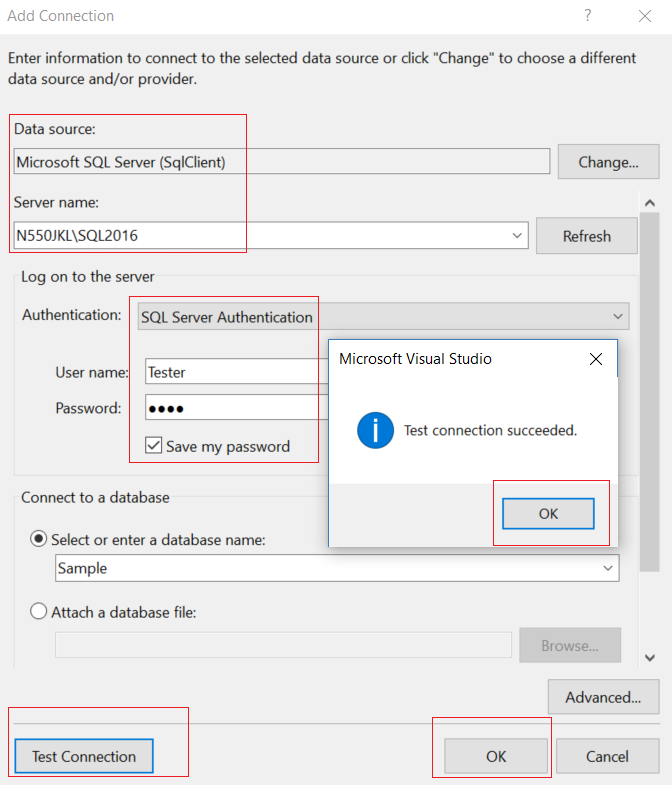
Server Explorer --> Data Connections --> Right click --> Add Connection...

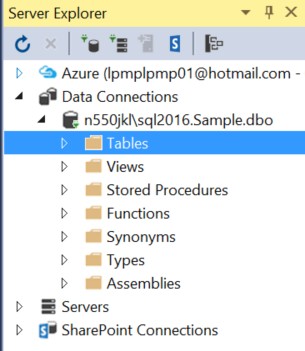
--> Microsoft SQL server -->

Enter your server and database details ....









2.2. DataClasses1.dbml

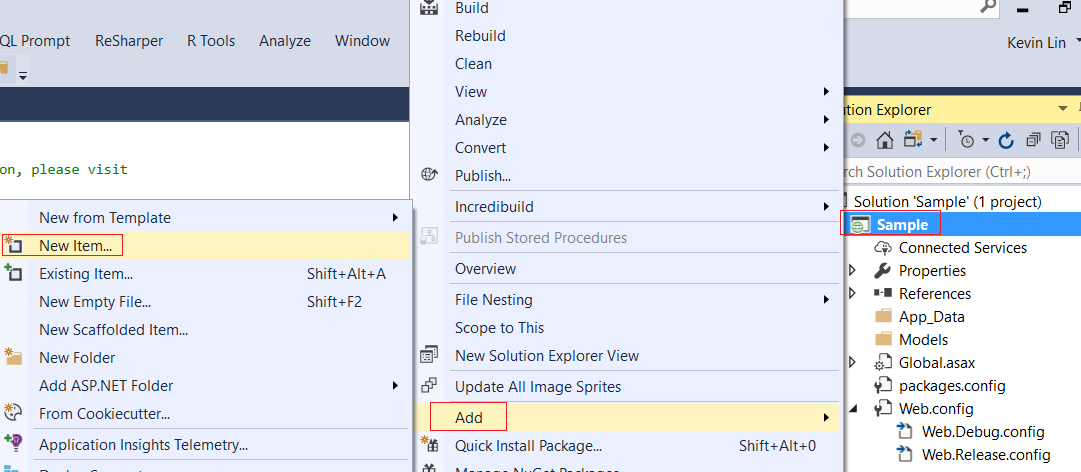
ProjectName --> Right Click --> Add --> New Item...

--> Linq to SQL classes -->

Name : **Sample.dbml**

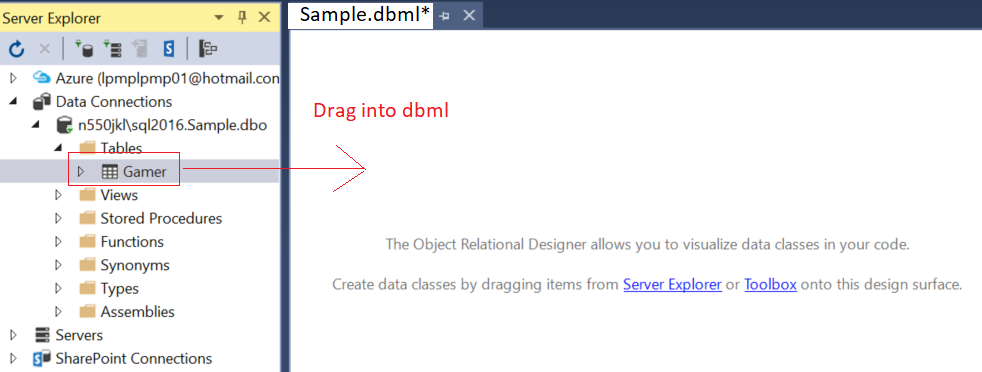
-->

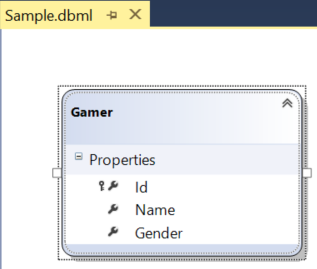
Drag Table from Server Explorer into DBML

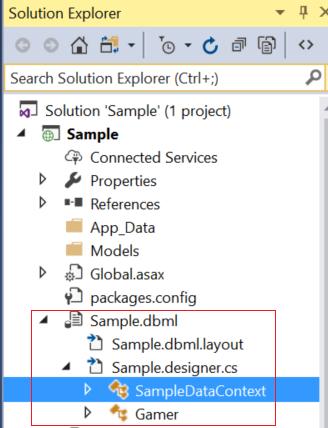


Graphical user interface, application

Description automatically generated







2.3. WebForm2

2.3.1. WebForm2.aspx

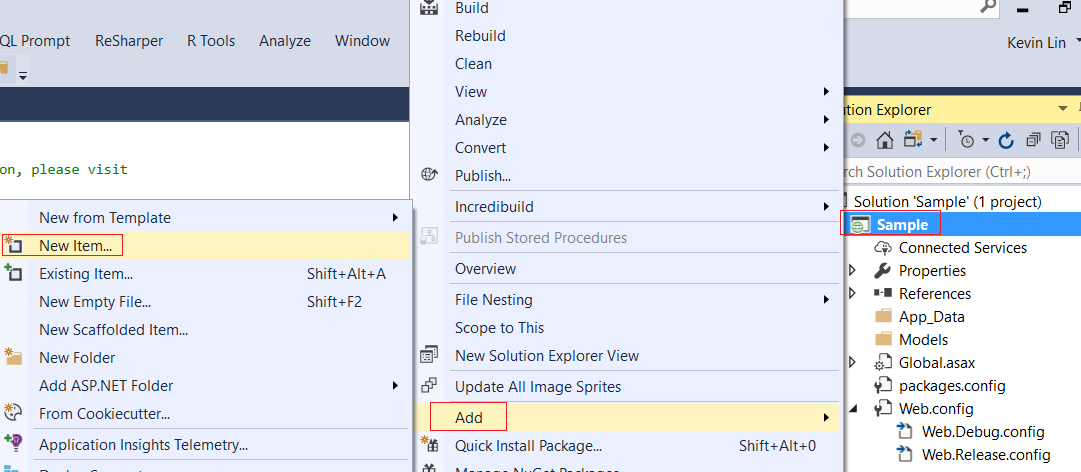
ProjectName --> Right Click --> Add --> New Item...

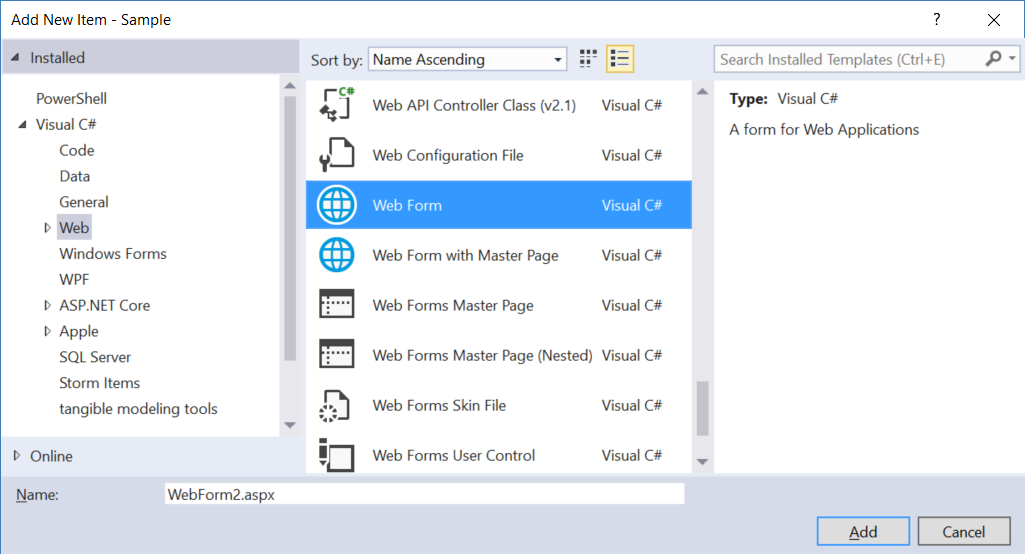
-->

**WebForm**

Name :

**WebForm2.aspx**





<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs" Inherits="Sample.WebForm2" %>

<!DOCTYPE html>

<html xmlns="<http://www.w3.org/1999/xhtml>">

<head runat="server">

    <title></title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            <asp:GridView ID="GridView1" runat="server"></asp:GridView>

        </div>

    </form>

</body>

</html>

2.3.2. WebForm2.aspx.cs

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Sample

{

    public partial class WebForm2 : System.Web.UI.Page

    {

        protected void Page\_Load(object sender, EventArgs e)

        {

            SampleDataContext dataContext = new SampleDataContext();

            GridView1.DataSource = from gamer in dataContext.Gamers

                where gamer.Gender == "Female"

                select gamer;

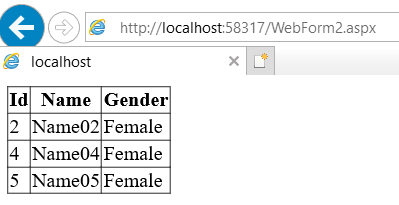
            //GridView1.DataSource = dataContext.Gamers.Where(gamer => gamer.Gender == "Female");

            GridView1.DataBind();

        }

    }

}



1.

1.1.

Language Integrated整體 Query (LINQ) is a component between the LINQ query and the actual data source which includes SQL Server, XML documents, Objects in memory etc.

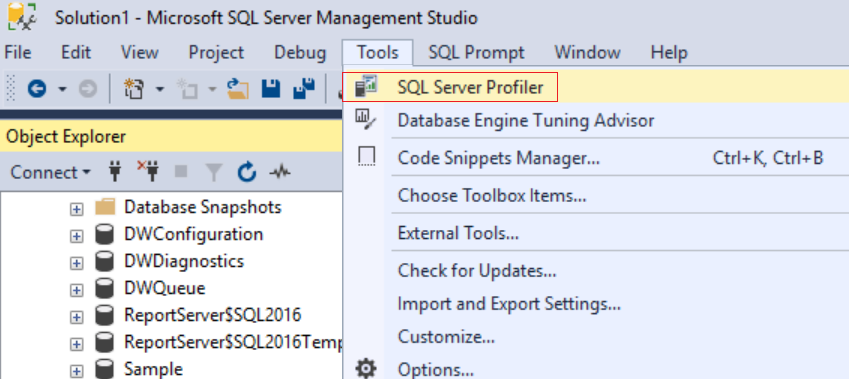
E.g. Linq to SQL provider can convert a Linq query to TSQL.

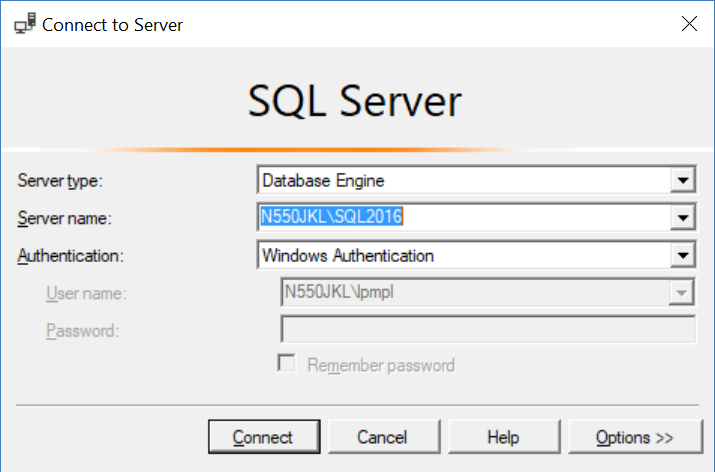
1.2.

LINQ query can be written by any .NET supported programming language, and it provides compile time error checking.

2.3.3. SQL Profiler

Tools --> SQL Server Profiler



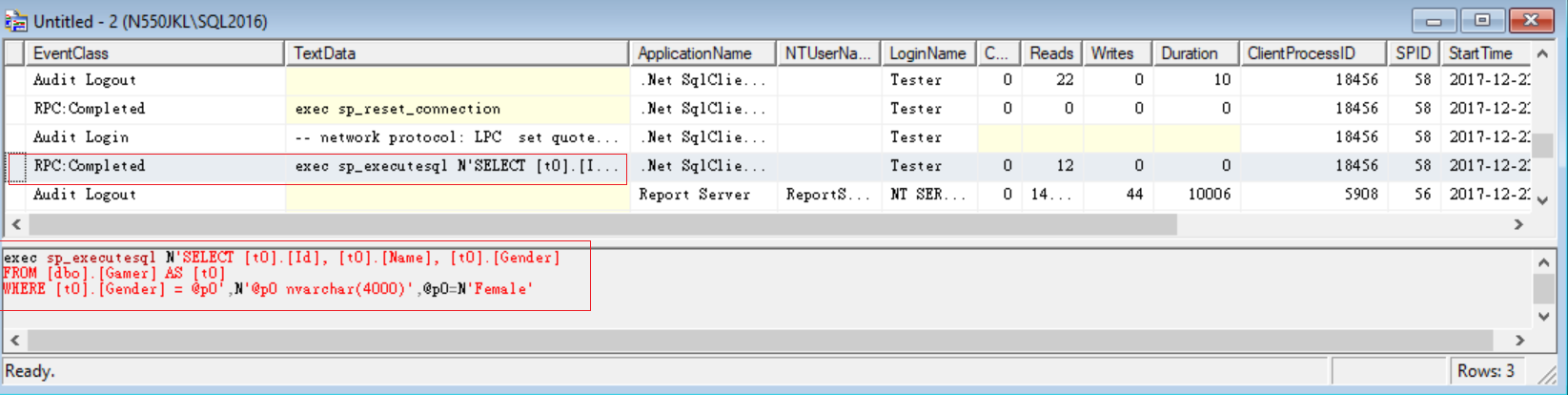


Graphical user interface, text, application, email

Description automatically generated

Now, go back to VS2017, and run WebForm2.aspx again

You will see Linq to SQL provider convert Linq to TSQL.



2.4. WebForm3

2.4.1. WebForm3.aspx

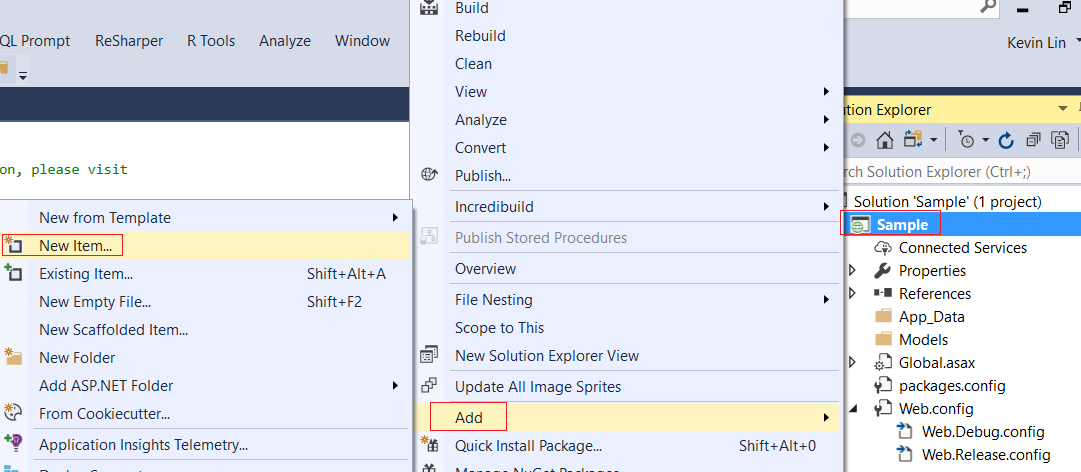
ProjectName --> Right Click --> Add --> New Item...

-->

**WebForm**

Name :

**WebForm3.aspx**



Graphical user interface, application

Description automatically generated

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm3.aspx.cs" Inherits="Sample.WebForm3" %>

<!DOCTYPE html>

<html xmlns="<http://www.w3.org/1999/xhtml>">

<head runat="server">

    <title></title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            <asp:GridView ID="GridView1" runat="server"></asp:GridView>

        </div>

    </form>

</body>

</html>

2.3.2. WebForm3.aspx.cs

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Sample

{

    public partial class WebForm3 : System.Web.UI.Page

    {

        protected void Page\_Load(object sender, EventArgs e)

        {

            SampleDataContext dataContext = new SampleDataContext();

            int[] intArr = {10, 9, 8, 7, 6, 5, 4, 3, 2, 1};

            GridView1.DataSource = from intItem in intArr

                                   where intItem >= 5

                                   select intItem;

            //GridView1.DataSource = intArr.Where(intItem => intItem >= 5);

            GridView1.DataBind();

        }

    }

}

