

Visual Training

Of

Microsoft Visual Studio2015

**Web based Applications using ASP.Net with MS Visual C-
Sharp**



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Chapter No.6

Interacting

With

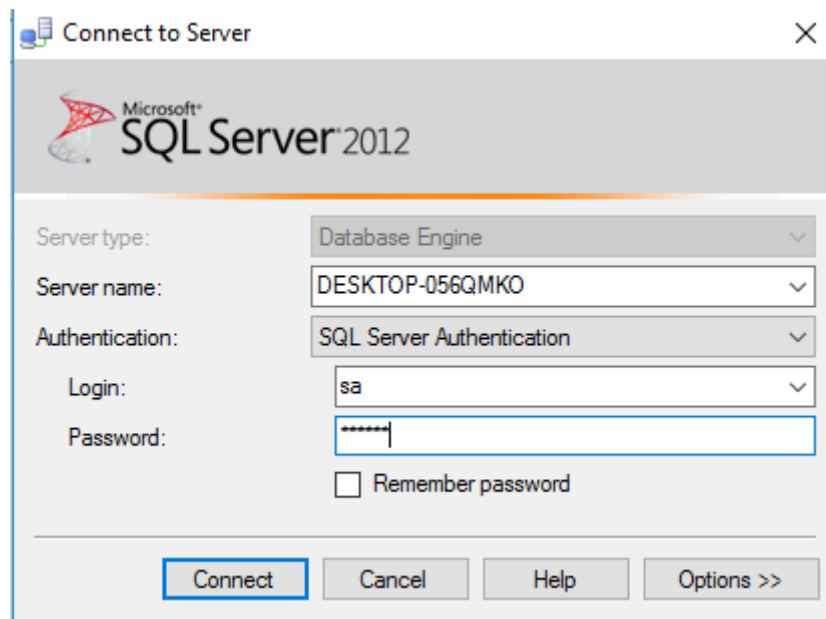
Microsoft SQL Server2012



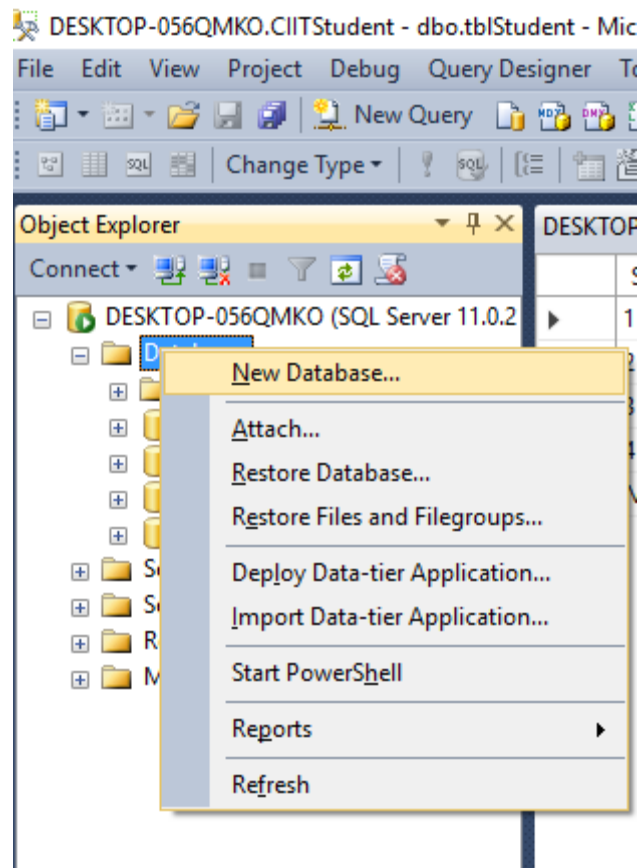
6.1 Database Table Design

Today, we will not write any coding just we will perform these operations through ASP.Net built-in controls.

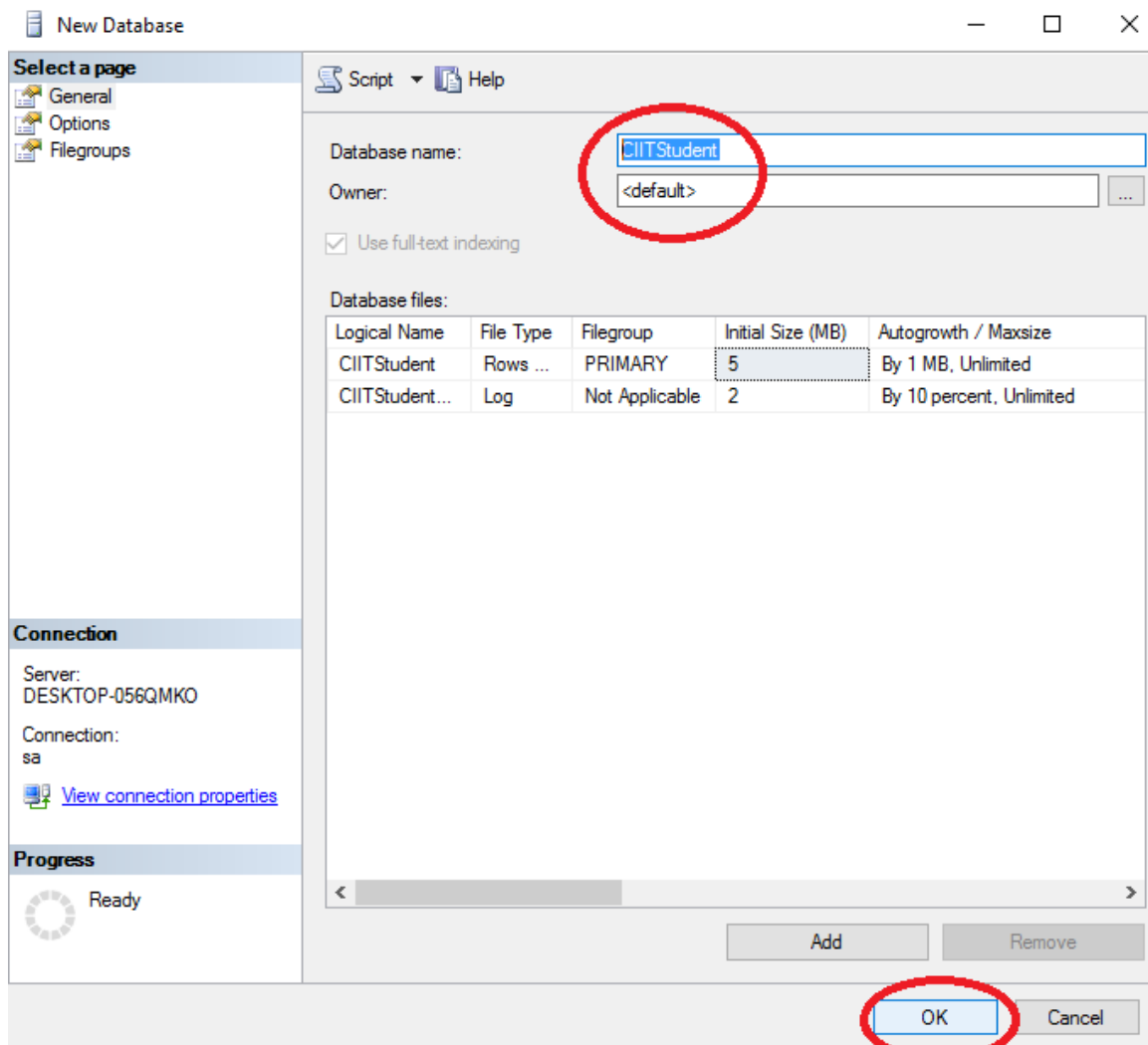
Open Microsoft SQL Server2012 Management Studio. Connect to SQL Server as shown here



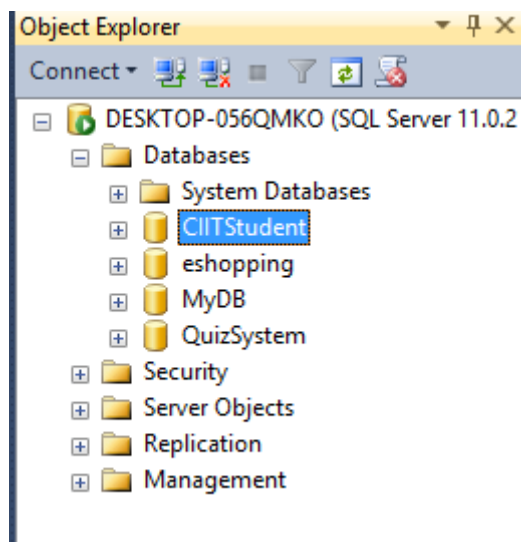
Server Name is the name of instance of SQL Server installed on the system. Here, we are logged into using SQL Server Authentication with **User ID** = sa and **Password** = rehman
After Log in, Right Click on **Databases** and Choose **New Database** option as shown



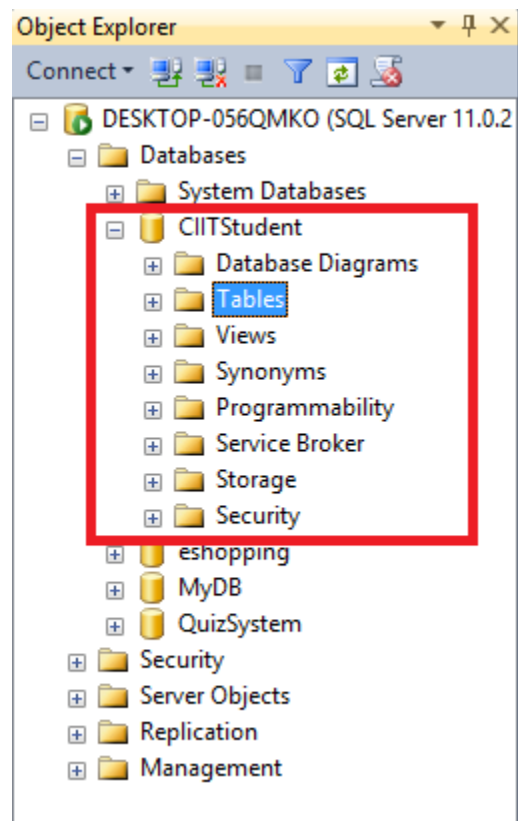
Enter Database Name as **CIITStudent** and press the **OK button**., you will notice that a new database name CIITStudent is added to SQL Server as shown



New Database is,



Expand the CIITStudent database, by Click on the Plus (+) sign near to CIITStudent database



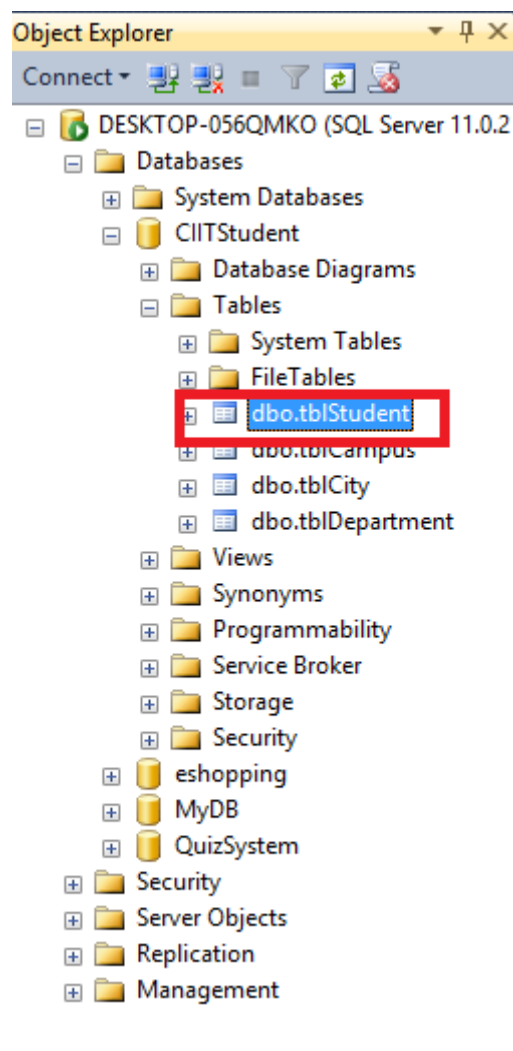
Next , add a table in this database, **by Right** click on the Tables Object, this will open the Table Design. Add the attributes to this table as shown here

DESKTOP-056QMKO.C...- dbo.tblStudent		DESKTOP-056QMKO....ent	
	Column Name	Data Type	Allow Nulls
▶	StudentSID	int	<input type="checkbox"/>
	Name	varchar(50)	<input checked="" type="checkbox"/>
	DOB	smalldatetime	<input checked="" type="checkbox"/>
	CGPA	varchar(50)	<input checked="" type="checkbox"/>
	CNIC	varchar(50)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Right Click on the **StudentSID** column and Choose Set as Primary Key to declare the **StudentSID** column as Primary key

DESKTOP-056QMKO....ent - dbo.Student			
	Column Name	Data Type	Allow Nulls
🔑	StudentSID	int	<input type="checkbox"/>
	Name	varchar(50)	<input checked="" type="checkbox"/>
	DOB	smalldatetime	<input checked="" type="checkbox"/>
▶	CGPA	varchar(50)	<input checked="" type="checkbox"/>
	CNIC	varchar(50)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Press the Save button and name table as **tblStudent**. This table will be added to the Tables object in the CIITStudent database as shwon



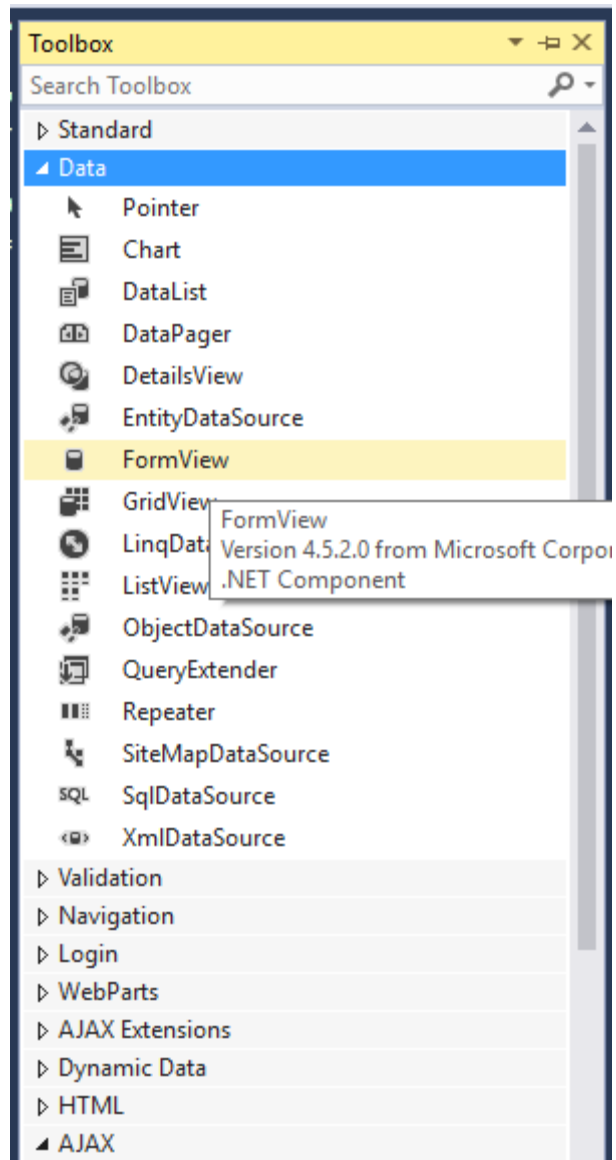
Add some sample data to this table as shown

DESKTOP-056QMKO.C... - dbo.tblStudent X DESKTOP-056QMKO....ent - dbo.Student					
	StudentSID	Name	DOB	CGPA	CNIC
▶	1	Asif	2000-01-01 00:0...	2.5	12101-5732440-9
	2	Tariq	2009-02-23 00:0...	3	23456-5656447-0
	3	Inam	2010-01-12 00:0...	4	34234-9089009-9
	4	Sajida	2003-01-31 00:0...	3	23234-9087789-3
*	NULL	NULL	NULL	NULL	NULL

4.2 Connecting Database to ASP.Net Data Controls

Now, turn into **Visual Studio2015** and perform the following tasks.

Add a new Page and name it to **Student**. Look for FormView Control in the Data Tab as shown



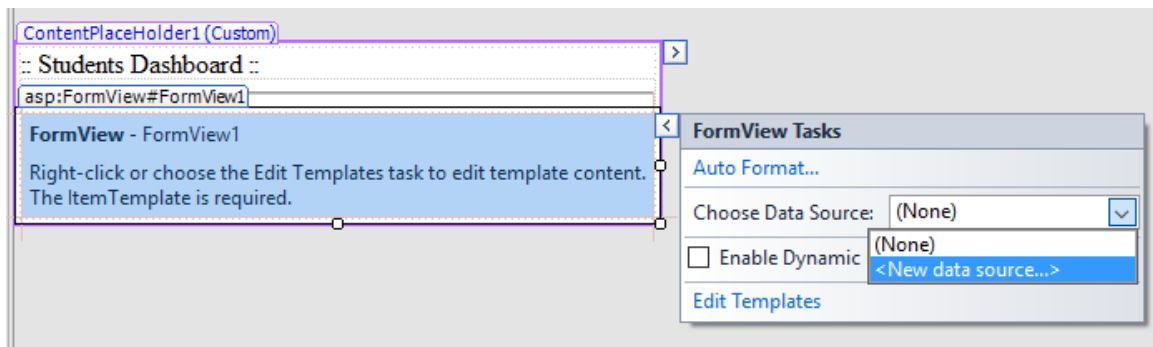
Today, we will use the *form View control* to scroll down the Existing database table record and edit the existing record, deleting the existing record and add new record to the table. Move to the design View. Drag the formView control and place it on the page

```

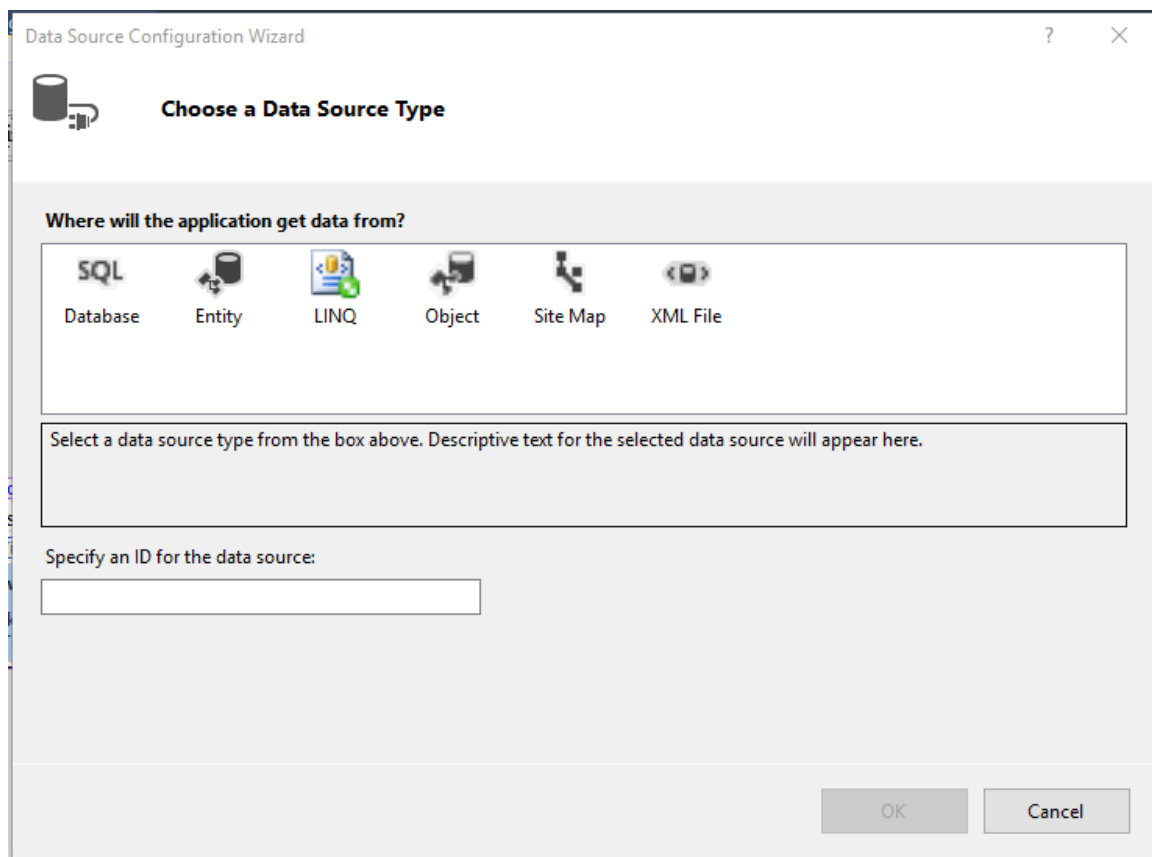
1  %@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
2      CodeFile="Students.aspx.cs" Inherits="Students" %>
3  <asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
4      Runat="Server">
5      <table>
6          <tr>
7              <td> :: Students Dashboard :: <hr /></td>
8          </tr>
9          <tr>
10             <td>
11                 <asp:FormView ID="FormView1" runat="server"></asp:FormView>
12             </td>
13         </tr>
14     </table>
15
16 </asp:Content>

```

Now, open the Form in design View as shown here. Right Click on the small arrow on the Right Top Corner of the Form View Control. From the Dropdown list choose **<New Data Source>** option as shown




This will open the following window









There are different types of Data Source, which can be used for Form View Control, these are included SQL database, XML etc. From this list choose SQL database

Database	Enables your application to connect and change data in database products, such as Microsoft SQL Server.

Data Source Configuration Wizard

 **Choose a Data Source Type**

Where will the application get data from?

 **Database**  Entity  LINQ  Object  Site Map  XML File

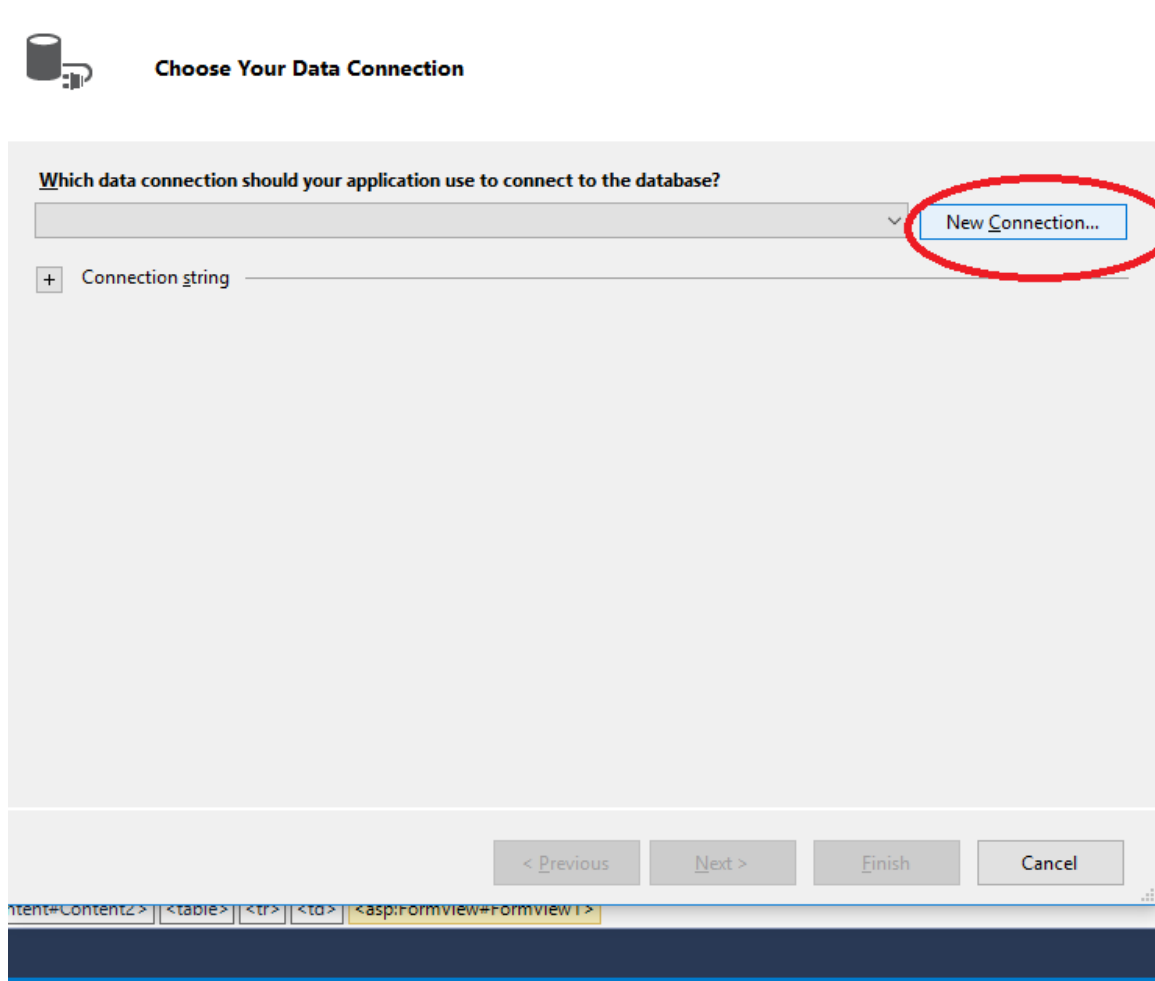
Connect to any SQL database supported by ADO.NET, such as Microsoft SQL Server, Oracle, or OLEDB.

Specify an ID for the data source:

SqlDataSource1

OK Cancel

Press the **OK** button,



Press the **New Connection** button, you will see the **Add Connection** Window as shown

Add Connection ? X

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source:
Microsoft SQL Server (SqlClient) Change...

Server name:
 Refresh

Log on to the server

Authentication: Windows Authentication

User name:

Password:

☐ Save my password

Connect to a database

☒ Select or enter a database name:

☐ Attach a database file:
 Browse...

Logical name:

Advanced...

Here, Enter the **Server Name** (this is same as we used Server Name while connection to MicroSoft SQL Server2012), **User Id= sa and Password= rehman** and Select the Database and press OK

Add Connection ? X

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source:
 Microsoft SQL Server (SqlClient) Change...

Server name:
 DESKTOP-056QMKO Refresh

Log on to the server:

Authentication: Windows Authentication

User name: sa

Password: •••••

☐ Save my password

Connect to a database

☒ Select or enter a database name:


- CIITStudent
- eshopping
- master
- model
- msdb
- MyDB
- QuizSystem
- tempdb

Advanced...

Test Connection OK Cancel

Press the Test Connection button to ensure that Connection has been established successfully.
 Finally, Press OK button to get the screen.

Configure Data Source - SqlDataSource1 ? X

 **Choose Your Data Connection**

Which data connection should your application use to connect to the database?

desktop-056qmko.CIITStudent.dbo New Connection...

+ Connection string

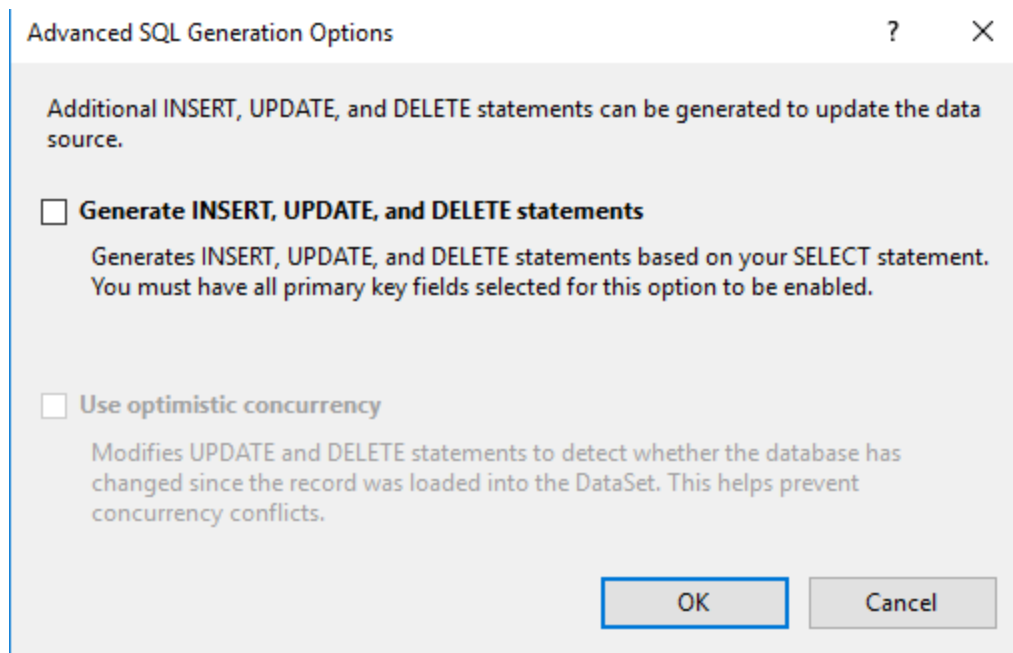
Press Next button to get, here Tick the check box to save the Connection String in the web.config file

The screenshot shows a dialog box titled 'Configure Data Source - SqlDataSource1'. It has a database icon and the title 'Save the Connection String to the Application Configuration File'. Below the title, there is explanatory text: 'Storing connection strings in the application configuration file simplifies maintenance and deployment. To save the connection string in application configuration file, enter a name in the text box and then click Next. If you choose not to do this, the connection string is saved in the page as a property of the data source control.' A red rectangle highlights a section with the question 'Do you want to save the connection in the application configuration file?'. Below this question is a checked checkbox labeled 'Yes, save this connection as:' followed by a text box containing 'CIITStudentConnectionString'.

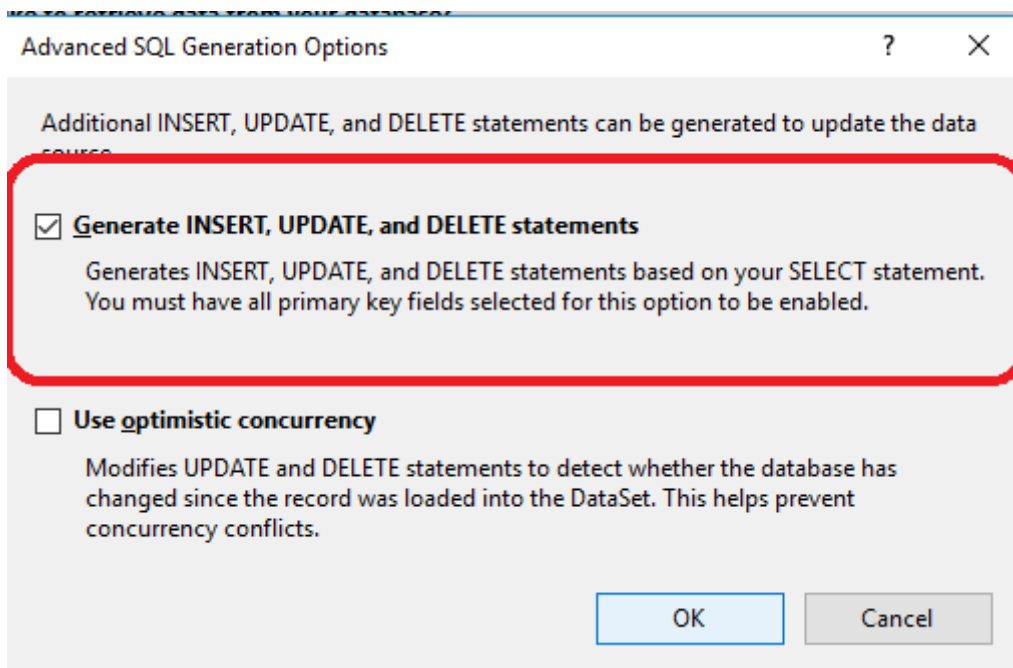
Again press the Next button, from the new window displayed choose the required table

The screenshot shows the same dialog box, now at the 'Configure the Select Statement' step. It has a database icon and the title 'Configure the Select Statement'. Below the title, it asks 'How would you like to retrieve data from your database?'. There are two radio buttons: 'Specify a custom SQL statement or stored procedure' (unselected) and 'Specify columns from a table or view' (selected). Under the selected option, there is a 'Name:' label and a dropdown menu. The dropdown menu is open, showing a list of tables: 'tblCampus', 'tblCity', 'tblDepartment', and 'tblStudent'. 'tblStudent' is currently selected. Below the dropdown, there are two checkboxes: 'CampusName' and 'CitySID', both of which are unchecked. To the right of the dropdown, there is a checkbox labeled 'Return only unique rows' which is also unchecked. Below this checkbox are three buttons: 'WHERE...', 'ORDER BY...', and 'Advanced...'.

There are different Buttons such as **Where** (to filter the data), **Order By** (to Sort the data) and **Advanced** (to generate Queries for DELETE, INSERT and UPDATE statement) button. Here , Press the Advance option button on the next screen



Tick the check boxes



Now, Press Next button and press the Test Query button

**Test Query**

To preview the data returned by this data source, click Test Query. To complete this wizard, click Finish.

StudentSID	Name	DOB	CGPA	CNIC
1	Asif	01-01-2000	2.5	12101-5732440-9
2	Tariq	23-02-2009	3	23456-5656447-0
3	Inam	12-01-2010	4	34234-9089009-9
4	Sajida	31-01-2003	3	23234-9087789-3

Test Query

SELECT statement:

SELECT * FROM [tblStudent]

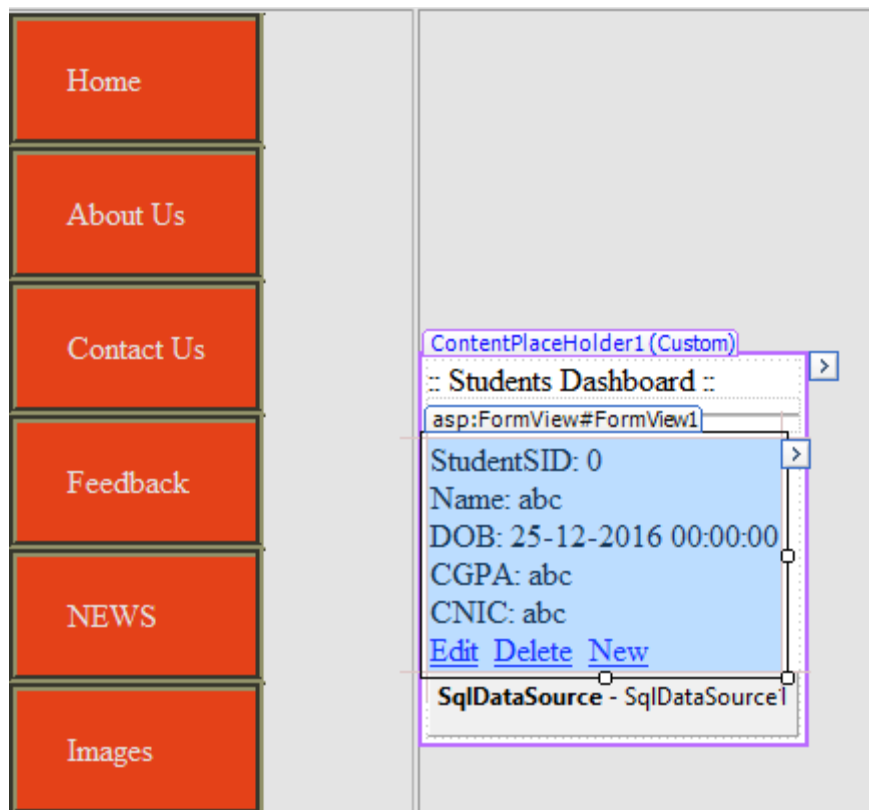
< Previous

Next >

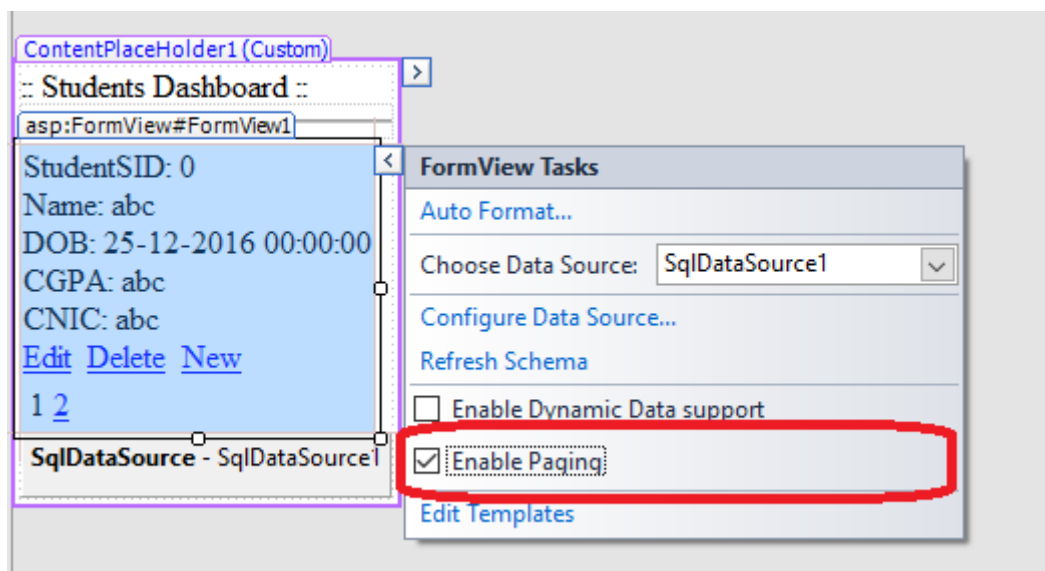
Finish

Cancel

Press finish button to get the result as shown



Right Click on the Right Top Corner of the Form View Control and Check the Enable Paging check box, save the site and run it...



Home	
About Us	
Contact Us	
Feedback	
NEWS	
Images	

:: Students Dashboard ::

StudentSID: 1
Name: Asif
DOB: 01-01-2000 00:00:00
CGPA: 2.5
CNIC: 12101-5732440-9
[Edit](#) [Delete](#) [New](#)
[1](#) [2](#) [3](#) [4](#)

You will see the details against each Student on the result page. At the end of the record there is numbering that helps to navigate between the table records. When you press the 2 button link, you will see the next record. So, we have displayed the table records in the form view and perform the navigations.

Now, press the New Link button to add a new record as shown,

Home	
About Us	
Contact Us	
Feedback	
NEWS	
Images	

:: Students Dashboard ::

StudentSID:

Name:

DOB:

CGPA:

CNIC:

[Insert](#) [Cancel](#)

Enter values and press the INSERT button

:: Students Dashboard ::

StudentSID:

Name:

DOB:

CGPA:

CNIC:

[Insert](#) [Cancel](#)

The data is added, to confirm it move to the last page, you will see the data is added as shown

:: Students Dashboard ::

StudentSID: 5
Name: Saif Ur Rehman
DOB: 02-02-1983 00:00:00
CGPA: 3.8
CNIC: 12101-5732009-0
[Edit](#) [Delete](#) [New](#)
[1](#) [2](#) [3](#) [4](#) [5](#)

Similarly press the delete button, the displayed record is deleted. Similarly, press the EDIT button, the data is displayed, change the data and it is updated as shown,

6.2 Connecting to GridView, ListView Controls to Database

Following the similar Steps, we can Bind the GridView and ListView Controls to the database; do editing the existing Record, Delete the Existing Record and Add New Record to database.

Congratulations! You have successfully Bind the FormView

Control to Database Table

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