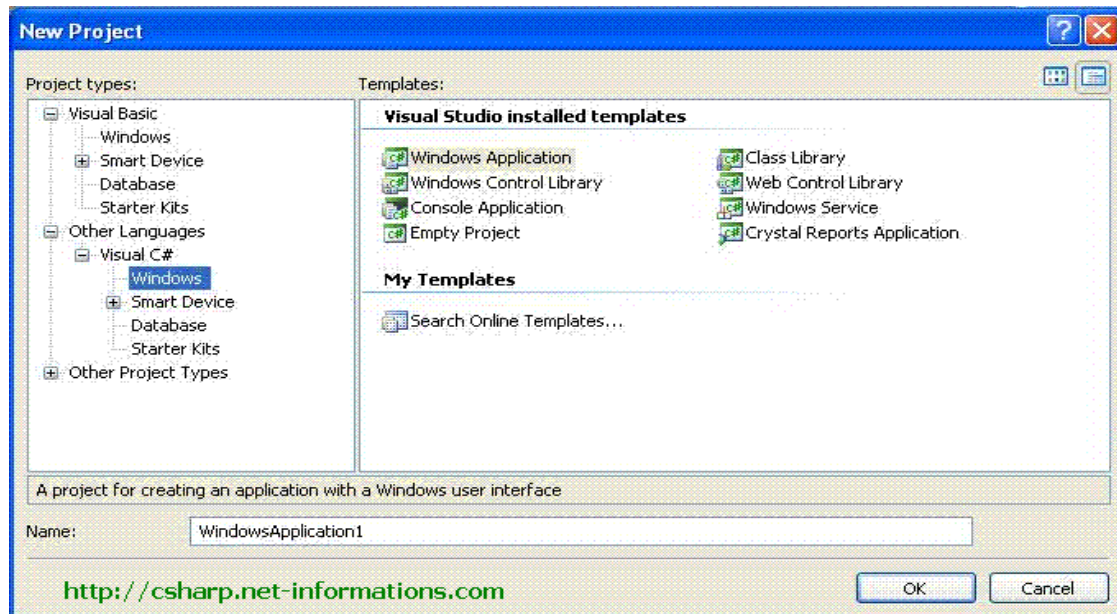


## Chapter-5:- User Controls(Components),Crystal Report,

### Set up Projects

#### ➤ **Creating Crystal Reports:-**

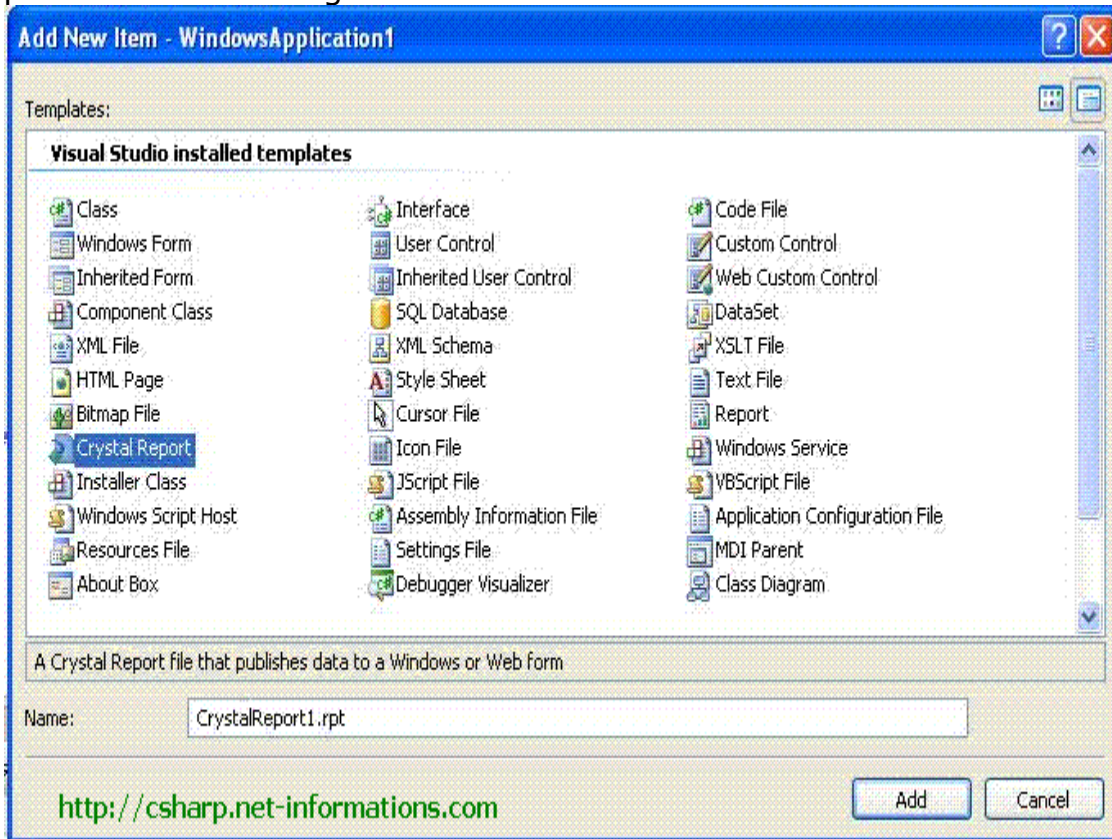
- ❖ **Crystal Report** is a Reporting Application that can generate reports from various Data Sources like Databases , XML files etc.
- ❖ The Visual Studio.NET Integrated Development Environment comes with Crystal Reports tools.
- ❖ The Crystal Reports makes it easy to create simple reports, and also has comprehensive tools that you need to produce complex or specialized reports in csharp and other programming languages.
- ❖ Crystal Reports is compatible with most popular development environments like **C#** , **VB.NET** etc.
- ❖ You can use the Crystal Reports Designer in Visual Studio .NET to create a new report or modify an existing report.
- ❖ Open Visual Studio .NET and select a new CSharp Windows project.



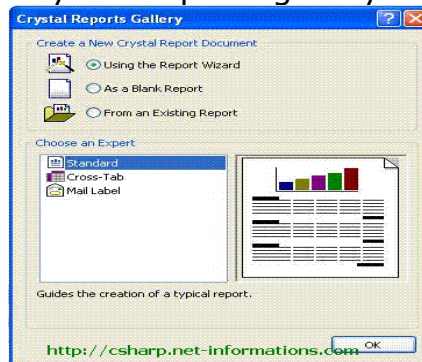
➤ Now you will get the default Form1.cs.

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

- From the main menu in Visual Studio C# project select PROJECT-->Add New Item . Then Add New Item dialogue will appear and select Crystal Reports from the dialogue box.



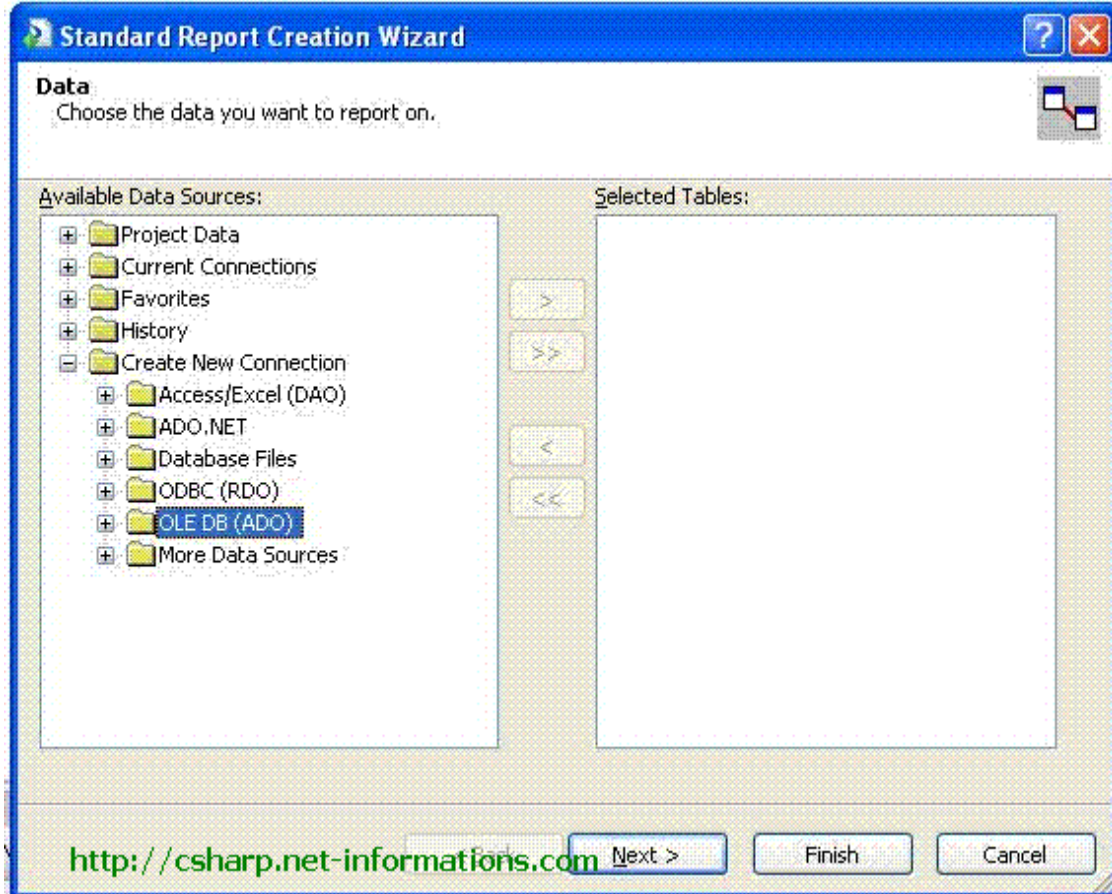
- Select Report type from Crystal Reports gallery.



- Accept the default settings and click OK.

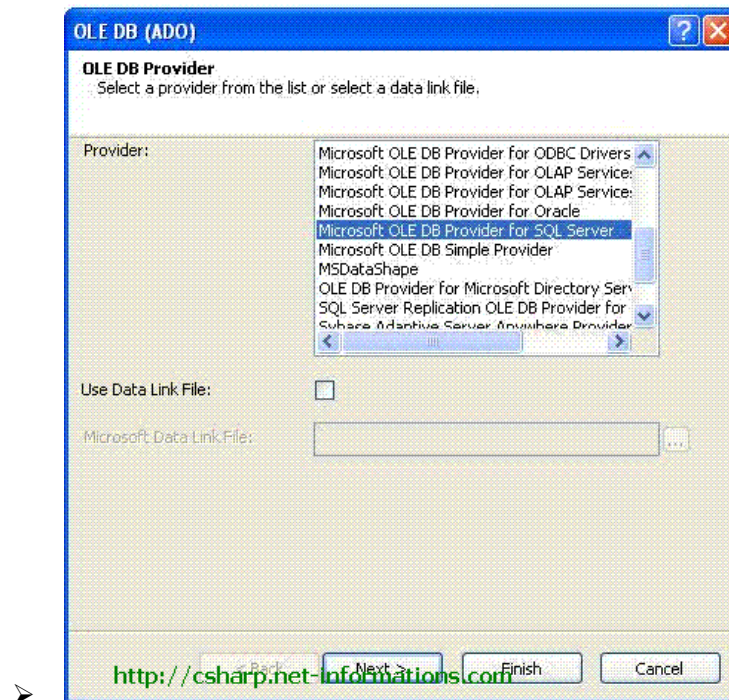
## Unit-5: User Controls (Components), Crystal Reports, Setup Project

- Next step is to select the appropriate connection to your database (here crstaldb). Here we are going to select **OleDb Connection** for SQL Server to connect Crystal Reports in C#.
- Select OLE DB (ADO) from Create New Connection .

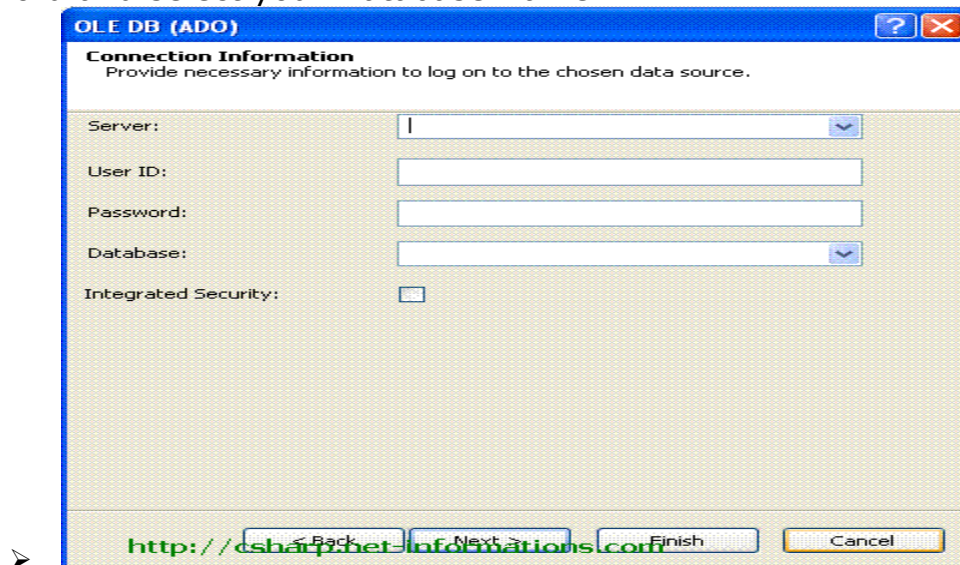


- Select Microsoft OLE DB Provider for SQL Server .

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

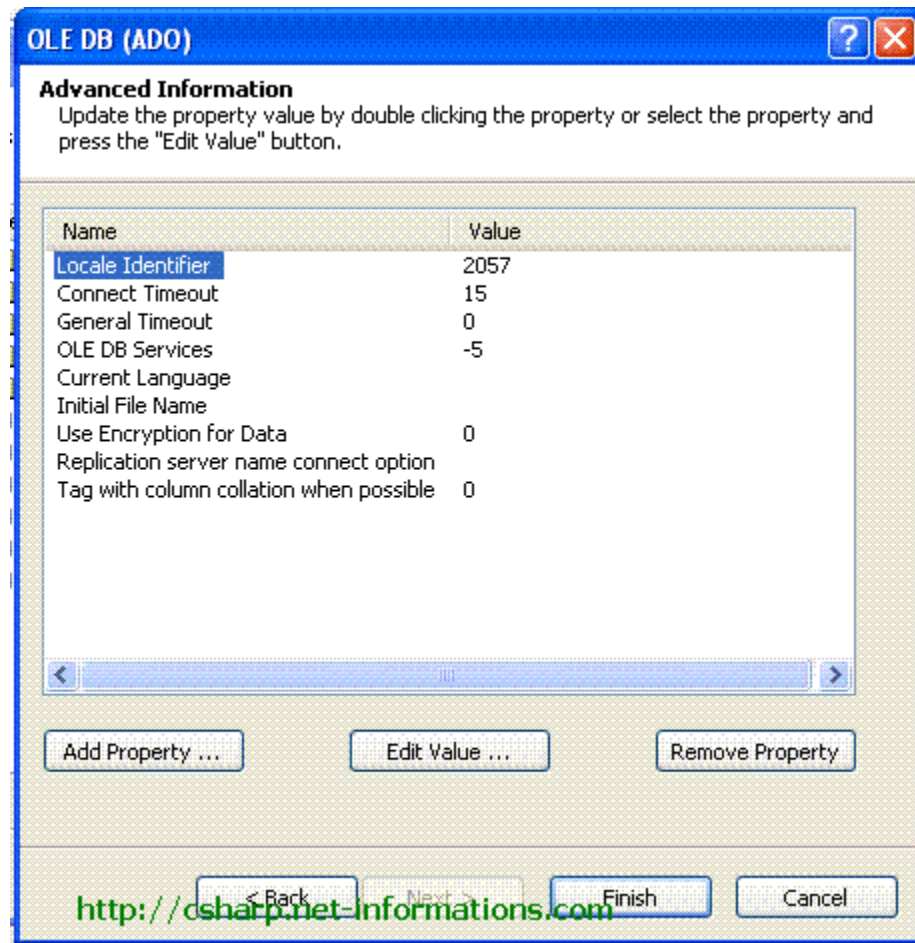


- The next screen is the SQL Server authentication screen for connecting to the database - crystalDB. Select your Sql Server name , enter userid , password and select your Database Name .



- Click next , Then the screen shows OLE DB Property values , leave it as it is , and then click finish button.

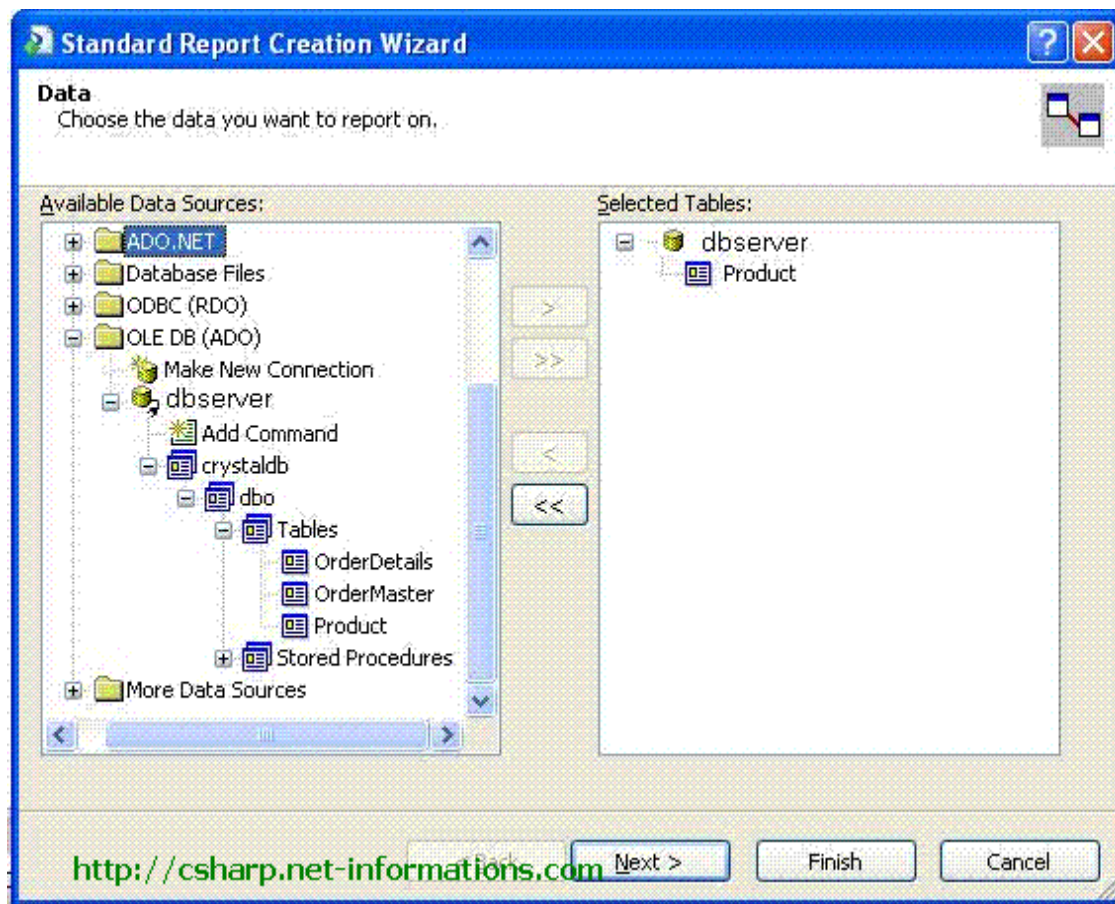
## Unit-5: User Controls (Components), Crystal Reports, Setup Project



- After you click the finish button , the next window you will get your Server name under OLEDB Connection, from there selected database name (Crystalldb) and click the tables , then you can see all your tables from your database.
- From the tables list double click the Product table then you can see the Product table will come in the right side list.

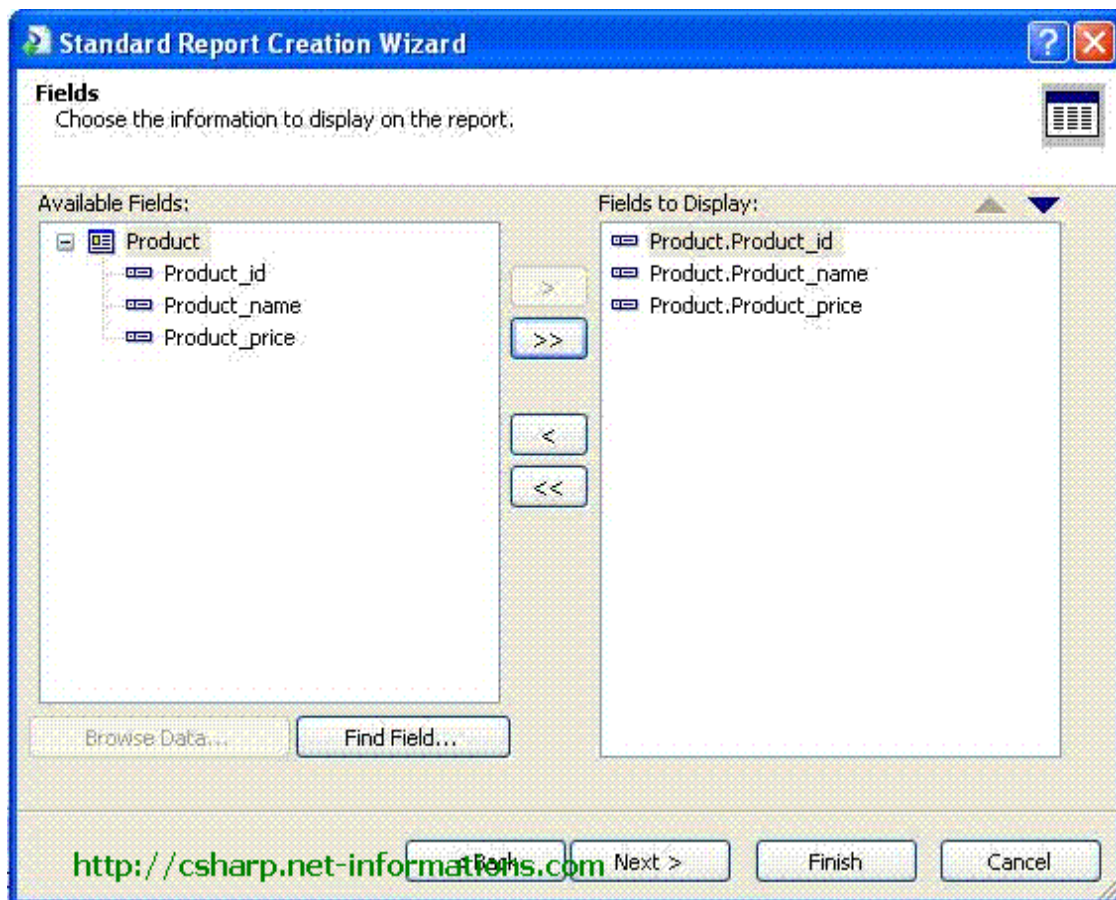


## Unit-5: User Controls (Components), Crystal Reports, Setup Project



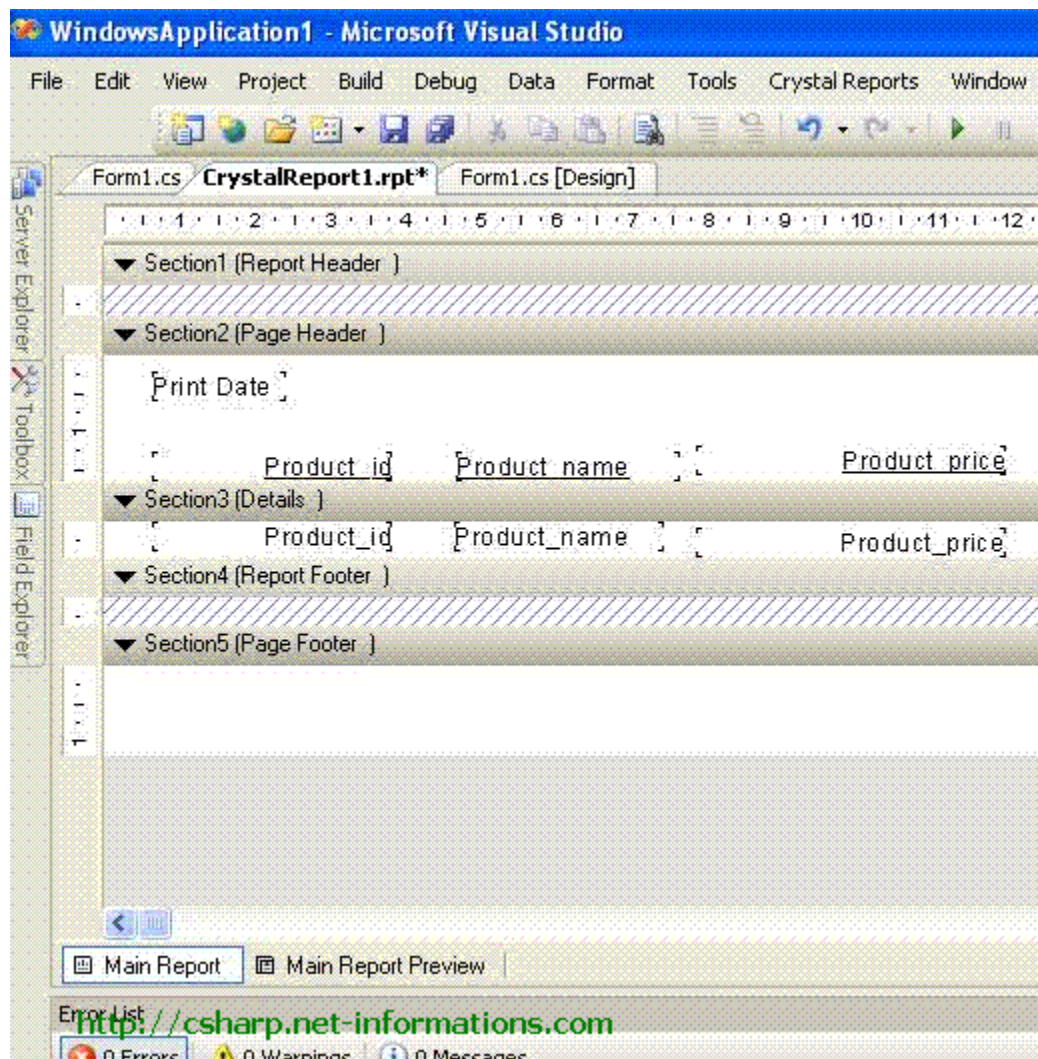
- Click Next Button
- Select all fields from Product table to the right side list .

## Unit-5: User Controls (Components), Crystal Reports, Setup Project



- Click Finish Button.
- Then you can see the Crystal Reports designer window in your C# project.
- In the Crystal Reports designer window you can see the selected fields from Product table.
- You can arrange the field Objects and design of the screen according your requirements. After that your screen is look like the following picture.

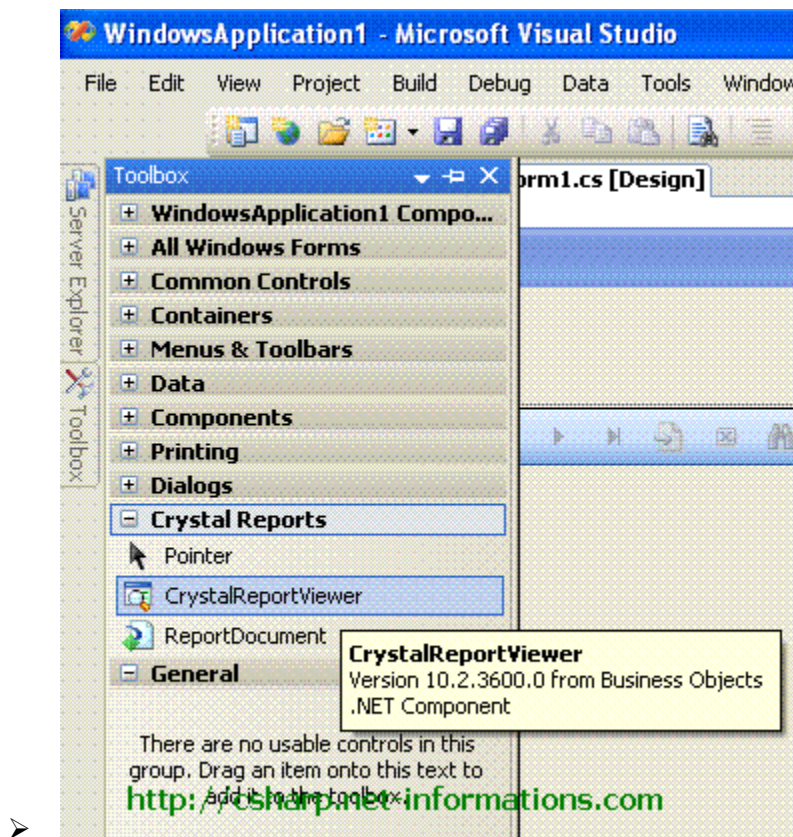
## Unit-5: User Controls (Components), Crystal Reports, Setup Project



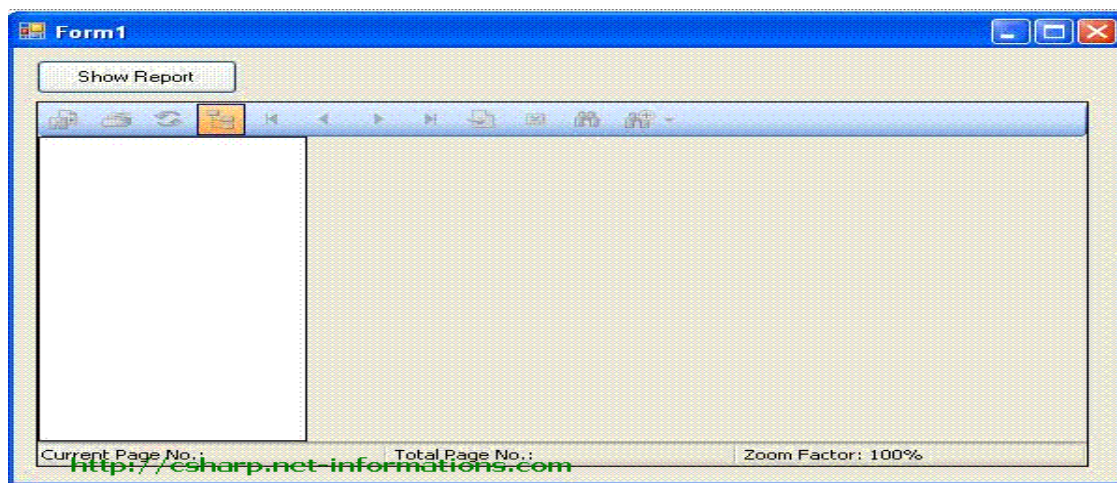
- Now the designing part is over and the next step is to call the Crystal Reports in your C# application and view it through Crystal Reports Viewer control in C#.
- Select the default form (Form1.cs) you created in C# and drag a button and a CrystalReportViewer control to your form .



## Unit-5: User Controls (Components), Crystal Reports, Setup Project



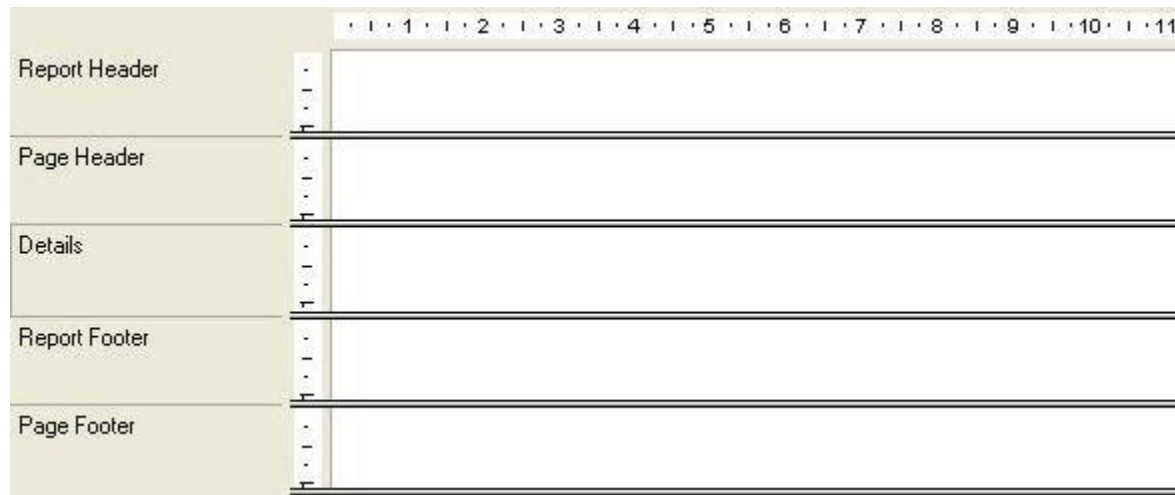
- After you drag the CrystalReportViewer to your form , it will look like the following picture.



## Unit-5: User Controls (Components), Crystal Reports, Setup Project

### ➤ Report Sections:-

- ❖ Sections are the design areas which you use to build your report.
- ❖ Crystal Reports by default provides five main sections:
  - Report Header – fields placed in this section are printed once, at the beginning of the report
  - Page Header - fields placed in this section are printed at the beginning of each new page
  - Details – fields in this section are printed with each new record
  - Report Footer - fields placed in this section are printed once, at the end of the report
  - Page Footer - fields placed in this section are printed at the bottom of each new page



More sections will appear if you add groups or simply insert new one.

### Working with sections

To insert a new section you need to:

- Click Section Expert button in the top menu. Section Expert contains a list of all sections in the report
- Select section and click insert. New section will appear after the section you have selected. If there are more than one section of a kind, there appear with lettered a, b, c and so on

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

### To delete a section:

- Open Section expert
- Select section you want to delete
- Click Delete. Note that you can only delete section if there are lettered. In mean that you cannot delete sections originally provided by Crystal Reports

### To move a section (change sections' order):

- Open Section Expert
- Select section you want to move
- Use up and down arrows to change order of the sections. Although the alphabetic order of sections is the same, their data and display order is changed

### To merge sections you need to:

- Open Section Expert
- Move sections so the sections you want to merge fallow each other
- Select the top section
- Click merge. Section will be merged with section that is next on the list

### To split sections:

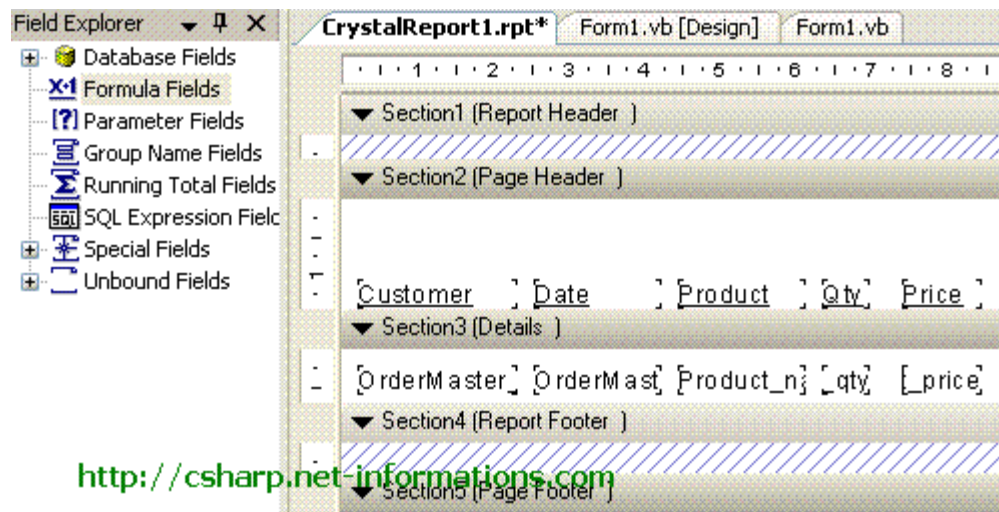
- Click on the on the boundary of the section you want to split. Horizontal line that splits section will appear
- Drag-and-drop it to the place where you want to split section

## ➤ **Formula, Special Field and Summary in Report:-**

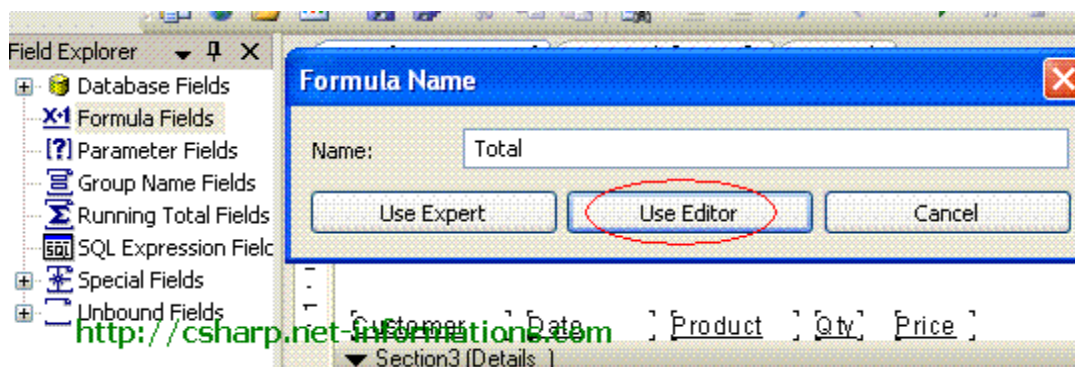
### **Formula Field:**

- ❖ The following C# - Crystal Reports section describes how to add a formula field in the Crystal Reports .

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

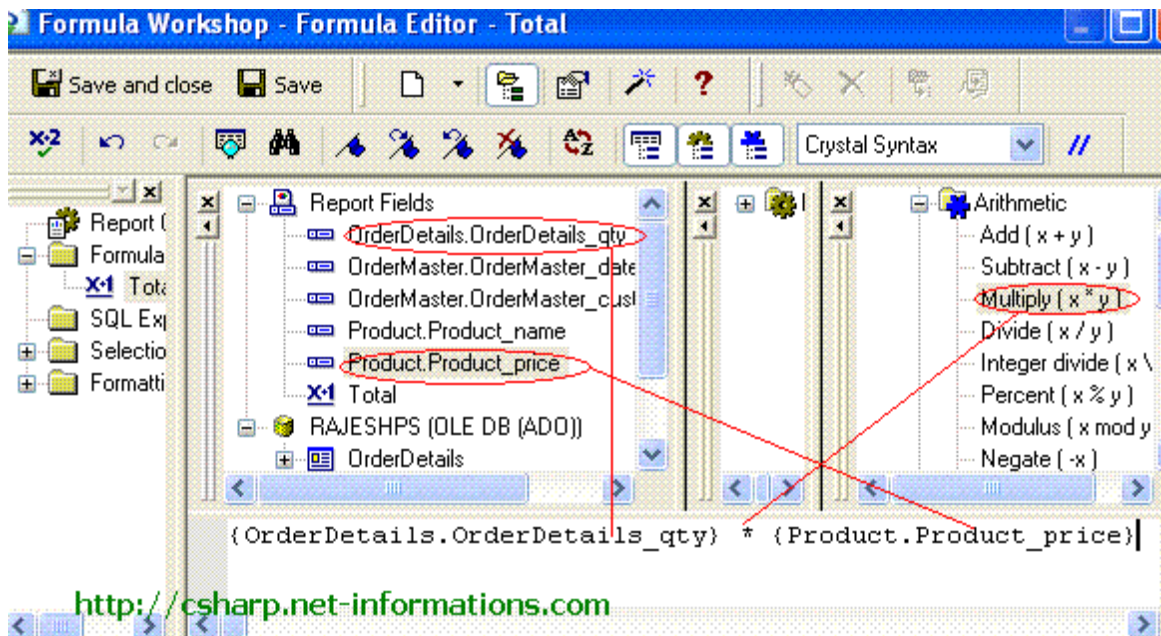


- ❖ Next step is to create a Formula Field for showing the result of **Qty X Price**.
- ❖ Right Click the Formula Field in the Field Explorer and click New. Then you will get an Input Message Box, type Total in textbox and click Use Editor.

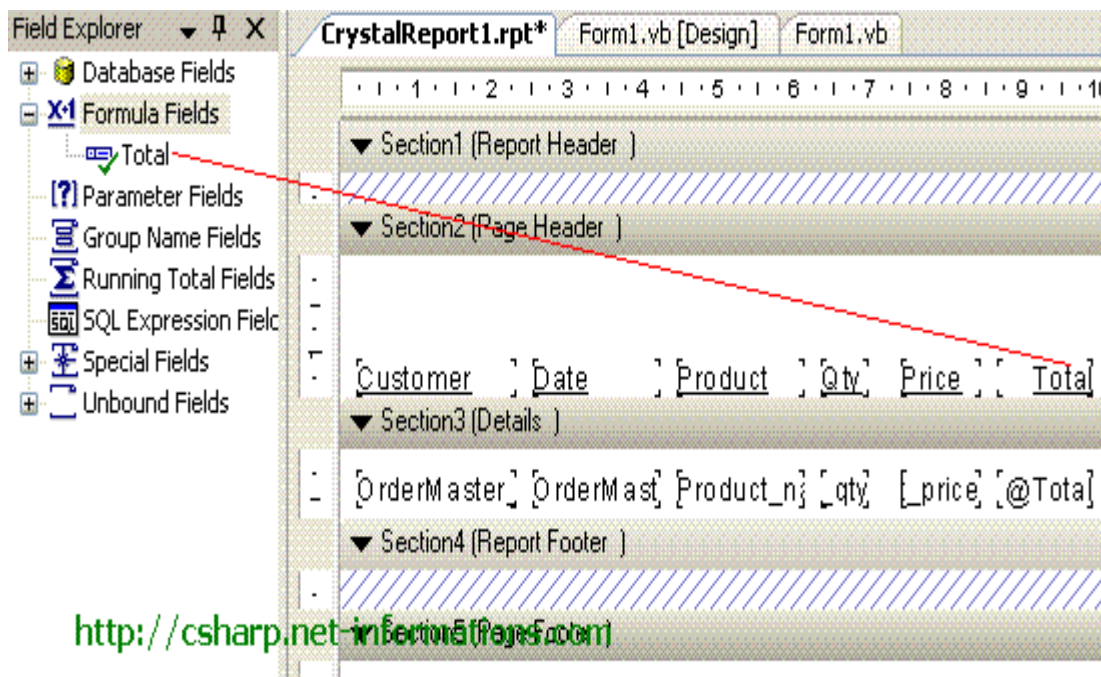


- ❖ Now you can see the Formula Editor screen. Here you can enter which formula you want. Here we want the result of Qty X Price. For that we select OrderDetails.Qty, the multiply operator (\*) and Product.Price. Double click each field for selection.

## Unit-5: User Controls (Components), Crystal Reports, Setup Project



- ❖ Now you can see Total Under the Formula Field . Drag the field in to the Crystal Reports where you want to display Total.

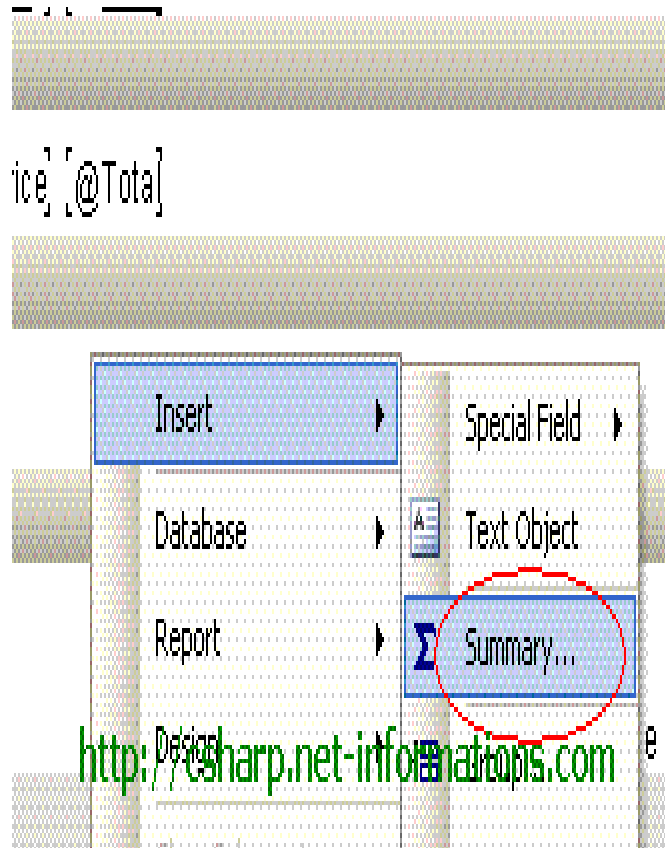




## Unit-5: User Controls (Components), Crystal Reports, Setup Project

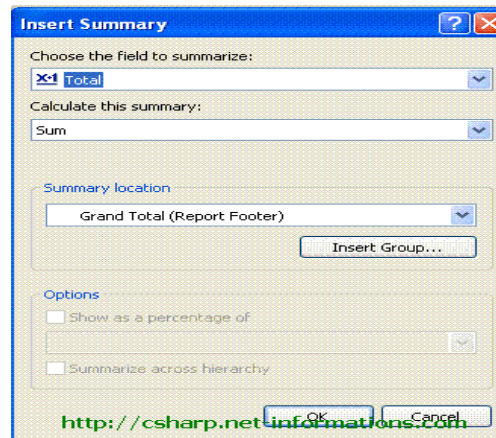
### Summary Field:

- ❖ The following C# - Crystal Reports section describes how to add a summary field in the Crystal Reports.
- ❖ In the Crystal Reports designer view window, right click on the Report Footer , just below the Total field and select **Insert -> Summary** .

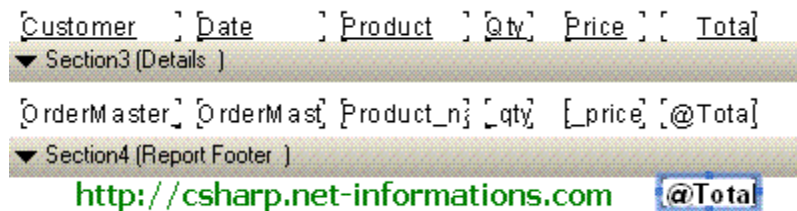


- ❖ Then you will get a screen , select the Total from the combo box and select Sum from next Combo Box , and summary location Grand Total (Report Footer) . Click Ok button

## Unit-5: User Controls (Components), Crystal Reports, Setup Project



- ❖ Now you can see @Total is just below the Total field in the report Footer.



### ➤ Creating Setup Projects

- ❖ Setup projects are used to create Windows Installer (.msi) files, which are used to distribute your application for installation on another computer or Web server. There are two types of setup projects. Standard setup projects create installers that install Windows applications on a target computer; Web setup projects create installers that install Web applications on a Web server.

#### **Note:**

The dialog boxes and menu commands you see might differ from those described in Help depending on your active settings or edition. To change your settings, choose Import and Export Settings on the Tools menu. For more information, see [Working with Settings](#).

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

### To create a new setup project

1. On the File menu, point to Add, then click New Project.
2. In the resulting Add New Project dialog box, in the Project Types pane, open the Other Project Types node, open Setup and Deployment Projects, and select Visual Studio Installer.
3. In the Templates pane, choose Setup Project for a standard setup, or Web Setup Project for a Web application.

### To add an existing setup project to a solution

1. On the File menu, point to Add, then click Existing Project.
2. In the resulting Add Existing Project dialog box, browse to the location of the setup project and click Open.

### ➤ **File System Editor:**

- ❖ The **File System** editor presents a graphic representation of the files, folders, and shortcuts your product installation creates or modifies on the target machine. Use this editor to:

- Add and delete files, folders, and shortcuts in the installer project.
- Control where to install folders and files on the target machine.
- Establish and modify the file structure of installer components.

- ❖ You can open this editor by either:

- Double-clicking **File System** in the **Target Machine** node in the **Project Explorer** window.

–or–

- Selecting the **File System** option on the **Project** menu.

- ❖ As you work in the **File System** editor, you can add, modify, or delete folders, files, and shortcuts with:

## Unit-5: User Controls (Components), Crystal Reports, Setup Project

- The context menu.

**Note :** You can display the context menu by right-clicking in the **File System** editor. Context menu activated options differ depending on what is selected when you right-click.

- Options on the **Actions** menu.

**Note** **Actions** menu active options differ depending on your current file or folder selection.

- The DELETE key (for item removal).

### Options

#### Left pane of File System editor

The left pane of the **File System** editor shows a folder view of the target machine. You can add and delete folders your product installs by setting them up here. You can also establish contents of target machine folders. Microsoft® Visual Studio® Installer provides these initial folders for you to work with:

- **Application Folder.** Sets the root directory for your application on the target machine.
- **User's Desktop.** Place items (such as files or shortcuts) you want to install to the user's desktop in this folder.
- **User's Start Menu.** Place items (such as files or shortcuts) you want to install to the user's Start menu in this folder.

**Note** If the installer project contains a Microsoft® Visual Basic® project with dependencies that can't be mapped to merge modules, a fourth folder labeled **Windows System Folder** is displayed in the left pane of the **File System** editor.

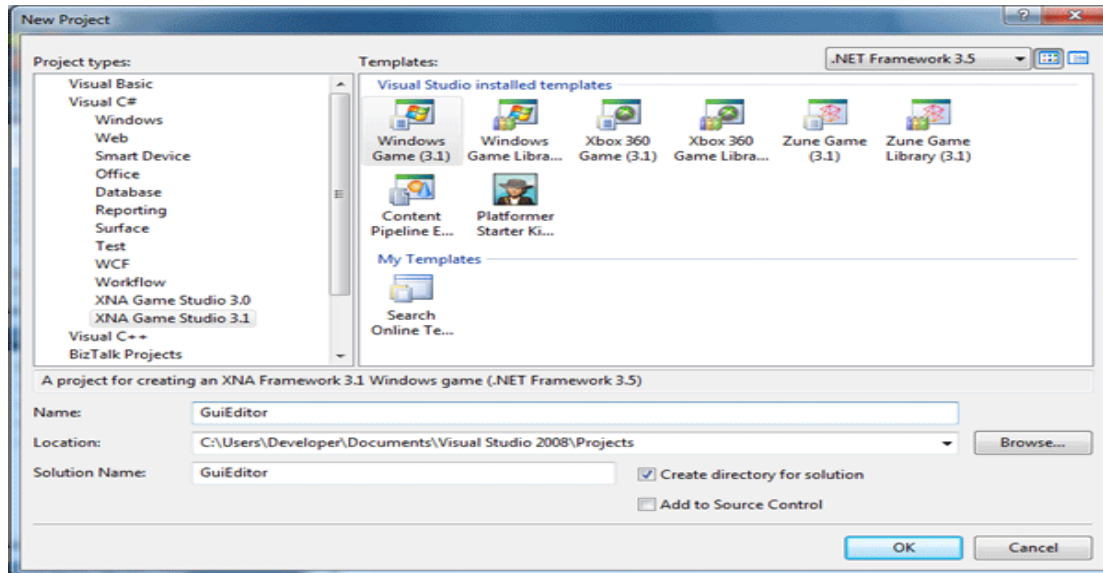
#### ➤ User Interface Editor:

- ❖ "GUI Editor" or "GUI Builder" is a Software Development Tool. It has a kind of WYSIWYG structure and helps the user to build a structure without coding or less coding. Without GUI's we had to write code for everything.

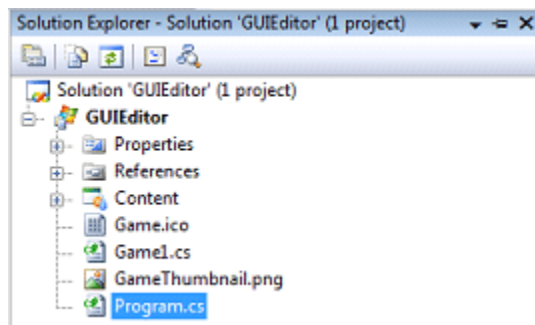
## Unit-5: User Controls (Components), Crystal Reports, Setup Project

### STEP BY STEP BUILDING A "GUI EDITOR"

First of all, we are creating a new XNA 3.1 Game Project...



Here it is..



1. Add a resource file that includes Skin images for controls.
2. A Structure that will help us export the control List as an XML File.
3. A "Screens" Folder that will help us to read this controls.
4. For Communication of Windows & XNA creating a class where we will declare "public static" variables
5. A "Properties Panel" where we can change the properties of selected controls.
6. A "Toolbox Panel" where we can add controls.
7. Our Custom Controls

**Subject: C#- BCA-4**

**Prepared By: Prof.Pooja Pandya**

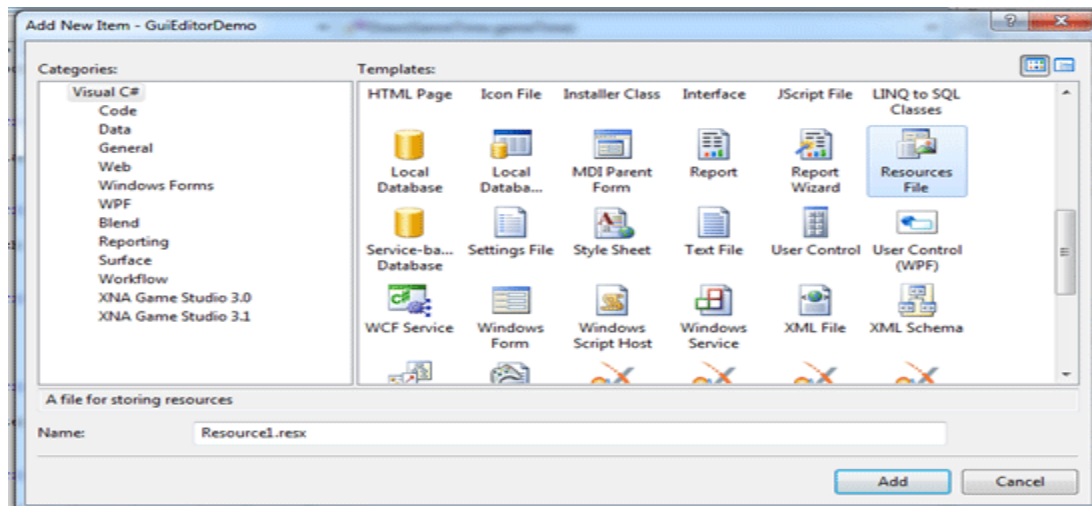


## Unit-5: User Controls (Components), Crystal Reports, Setup Project

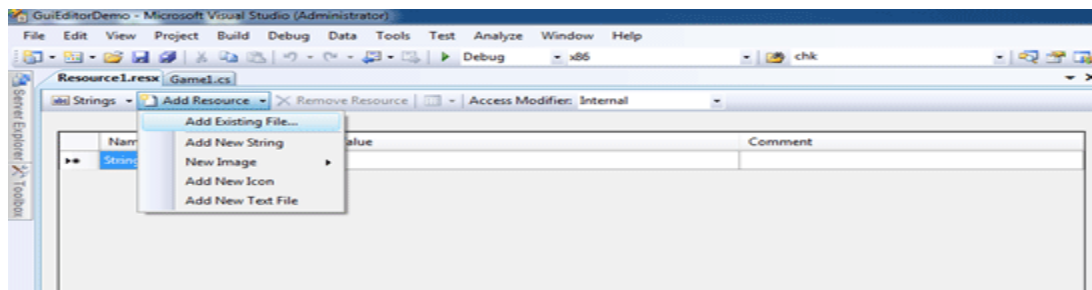
### 1. Add a resource file that includes Skin images for controls

We are adding 3-4 skin images for our Button control...

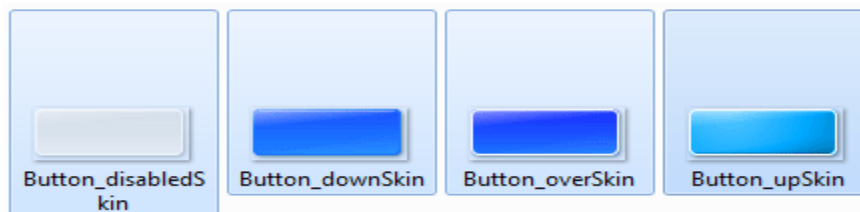
First of all we're creating a Resource File that will help us storing the skins:



After that open the resource file and "Add Resource->Add Existing File..."



Then add 4 sample skins(you can create your own skins named 'disabled','down','over' and 'up'):



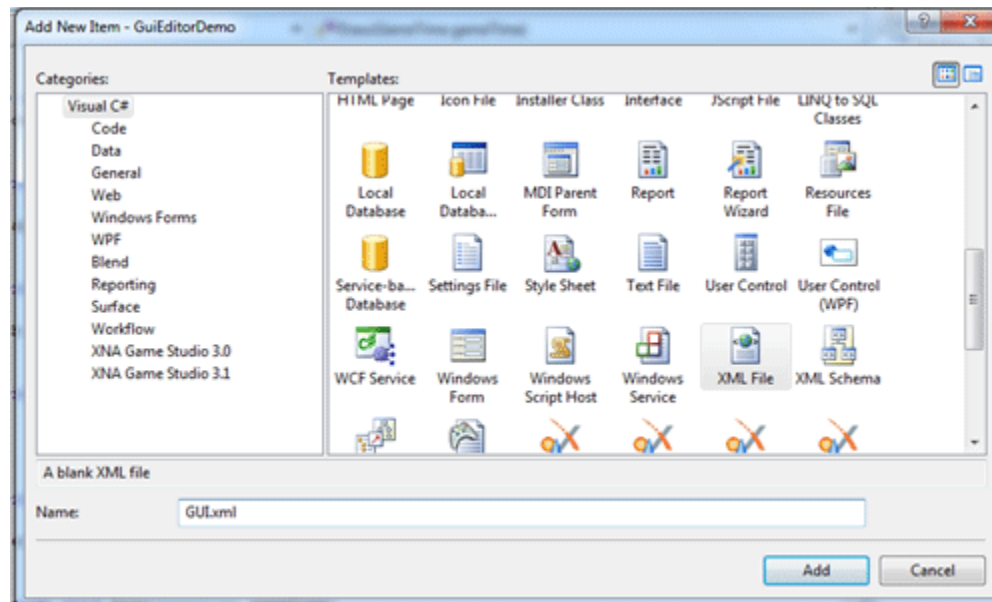
## Unit-5: User Controls (Components), Crystal Reports, Setup Project

Here they are added at Resources...



### 2. A Structure that will help us export the control List as an XML File

First creating a new XML File:



Then make it similar to the codes below:

```
<?xml version="1.0" encoding="utf-8" ?>
<GUI>
  <Control Name="">
    <Type></Type>
    <AllowDrop></AllowDrop>
    <Enabled></Enabled>
    <ForeColor></ForeColor>
    <LocationX></LocationX>
    <LocationY></LocationY>
```

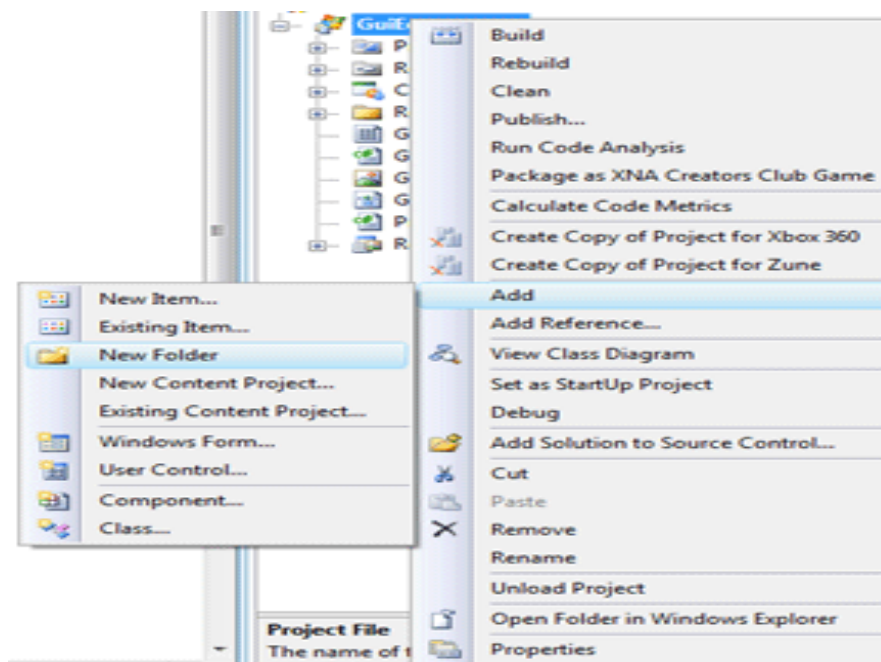
## Unit-5: User Controls (Components), Crystal Reports, Setup Project

```
<SizeW></SizeW>  
<SizeH></SizeH>  
<Text></Text>  
</Control>  
</GUI>
```

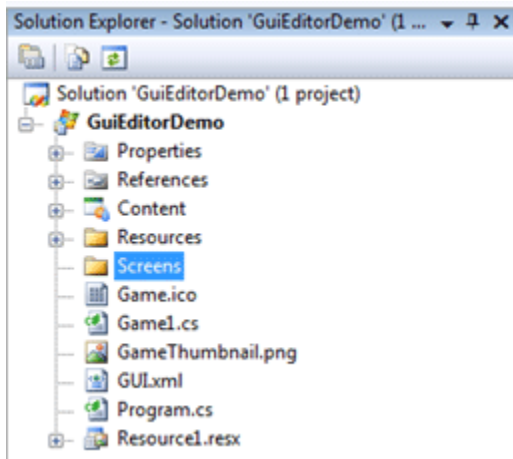
We are taking advantage of XML for the structure we will be building on GUI Editor & as you can see we added elements as they are already properties of the controls. Actually it would be a big mistake not to use XML in this kind of applications.

### 3. A "Screens" Folder that will help us to read this controls.

Just create a new Folder in the project and call it Screens.

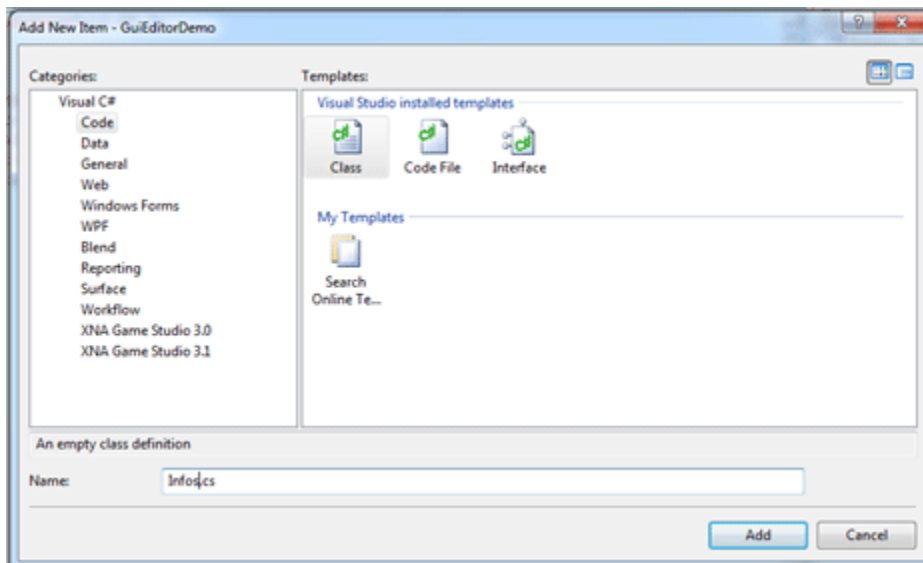


## Unit-5: User Controls (Components), Crystal Reports, Setup Project



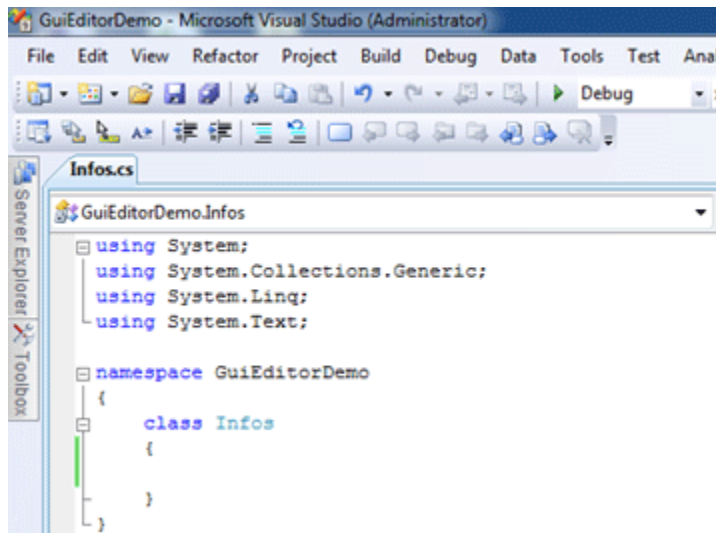
### 4. For Communication of Windows & XNA, creating a class where we will declare "public static" variables

Create a new Class & name it Infos.cs...



It seems just like this:

## Unit-5: User Controls (Components), Crystal Reports, Setup Project



In this point we aren't writing any code.

### 5. A "Properties Panel" where we can change the properties of selected controls

We need to add a Properties Panel. First we need to create a Windows Forms:

