

User Controls

Asst. Prof. Dr. Özgü Can

User Control

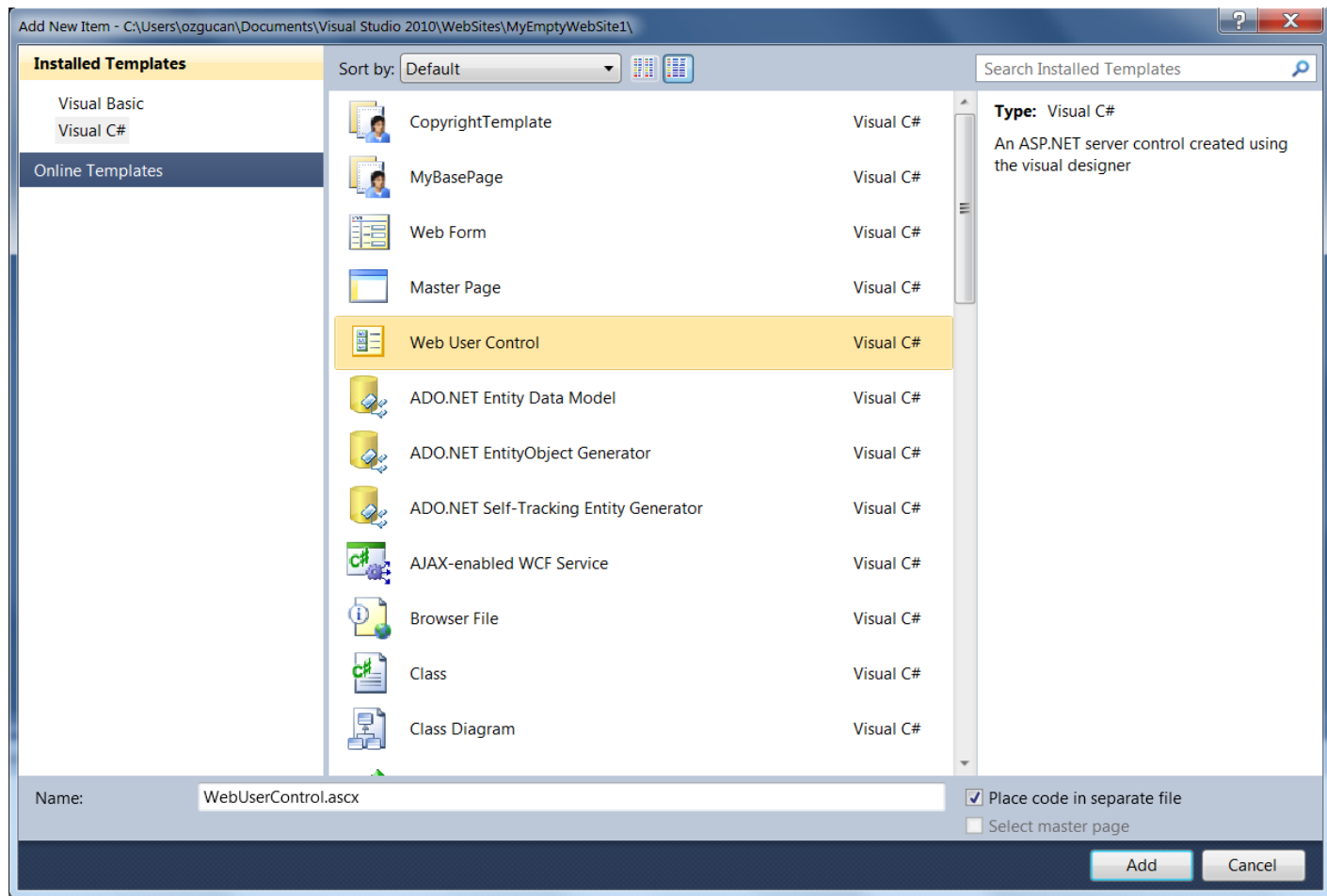
- Encapsulates markup, controls and code that you need **repeatedly** throughout the site.
- Looks like server controls.
 - Contain programming logic and presentation that you can **reuse in your pages**.
- You can **create reusable content**.
 - Content that should appear **only** on some **but not** all pages.

User Control

- **.ascx** extension
- Cannot be requested in the browser **directly**.
 - Add to a **content** or a **master page** or **another user control**.
- Can't drag existing ones from toolbox
 - You need to **create** your own user controls and **add** them to your ASPX pages.

Creating User Control

- Add New Item



Creating User Control

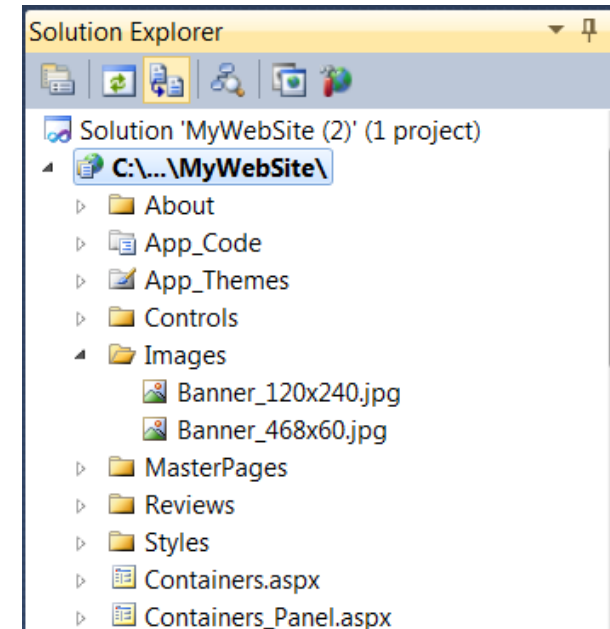
- Doesn't have an **@Page** directive
- **@Control** directive

```
<%@ Control Language="C#" AutoEventWireup="true" CodeFile="WebUserControl.ascx.cs" Inherits="WebUserControl" %>
```

Example

Creating User Control

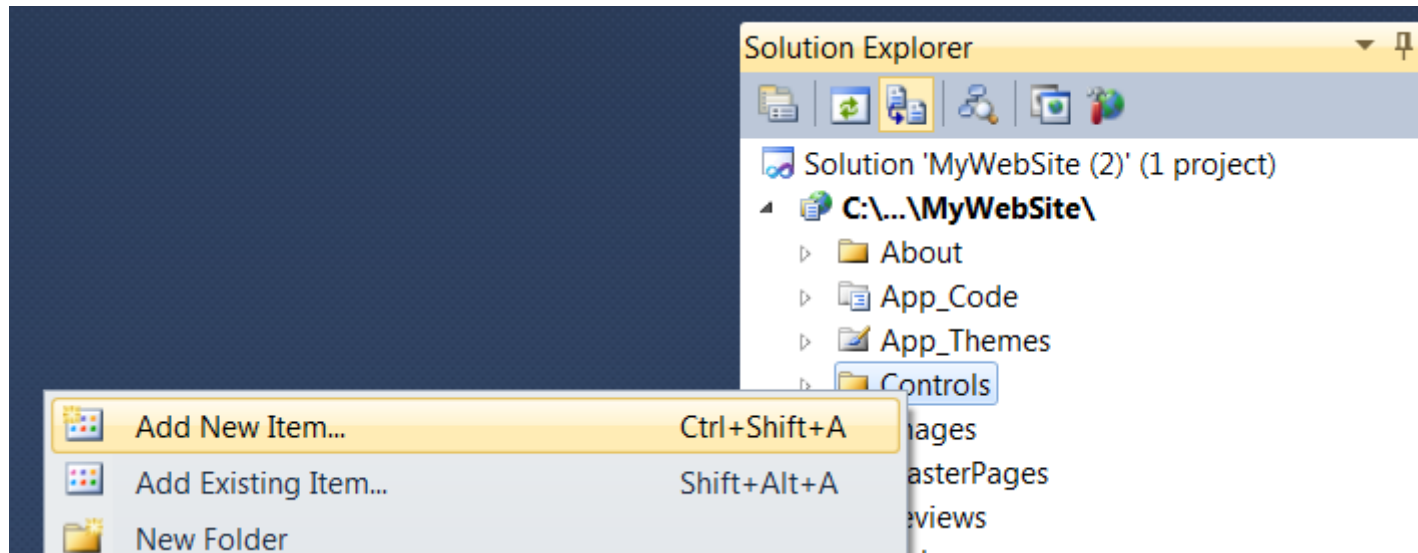
- Create a folder → **Controls**
- Create a folder → **Images**
- Drag 2 image file to **Images** folder
 - **Banner120x240 . jpg**
 - **Banner468x60 . jpg**



Example

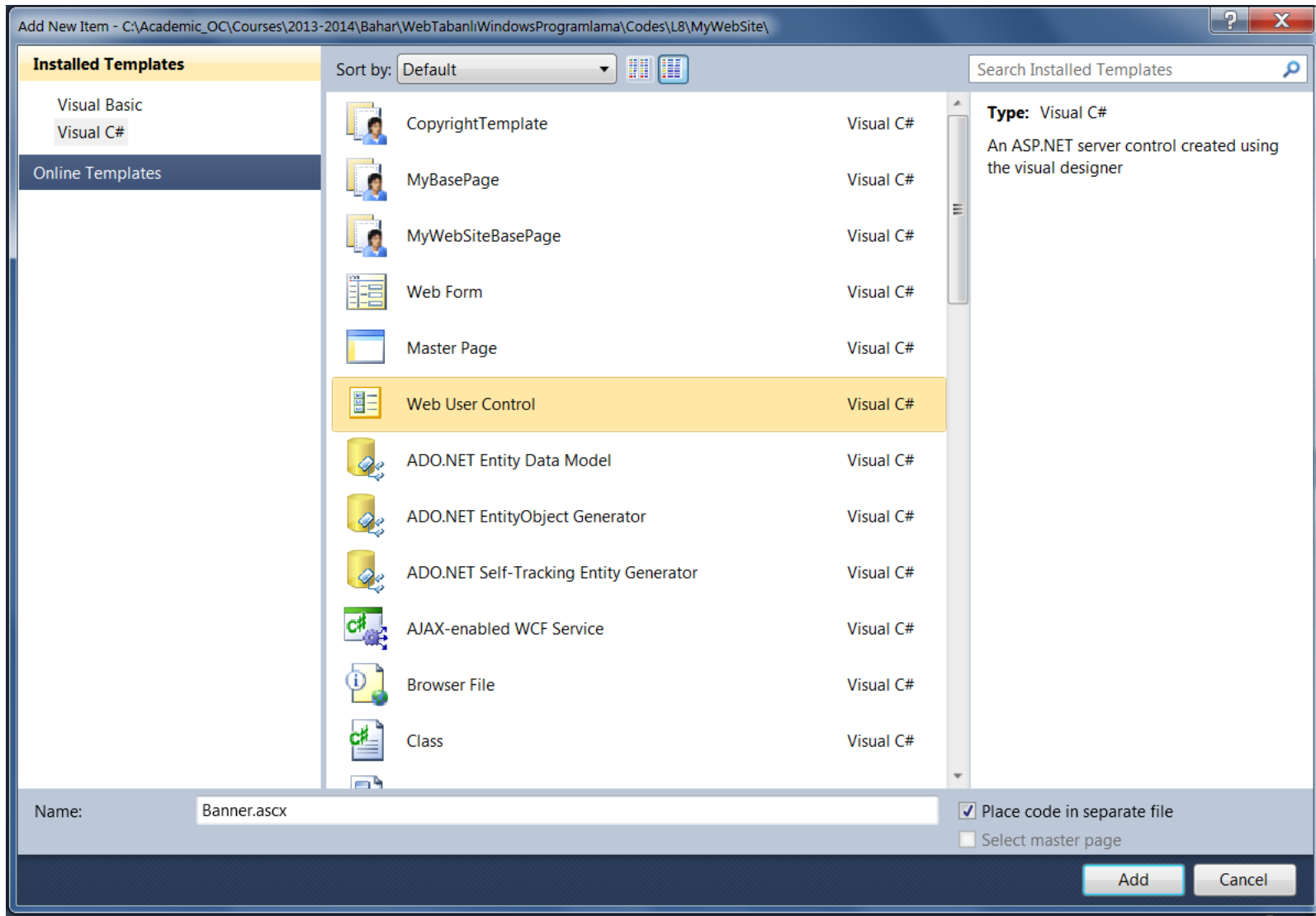
Creating User Control

- Right-click the **Controls** folder and **Add New Item**



Example

Creating User Control

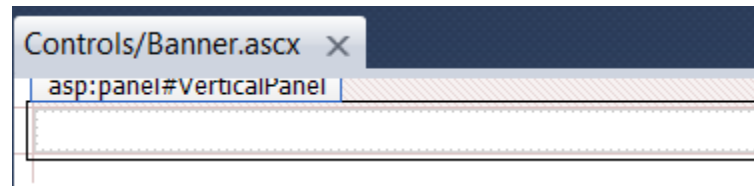


Example

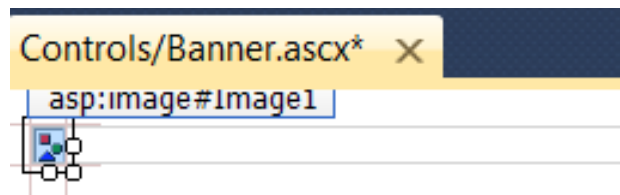
Creating User Control

- In Design View → Drag a **Panel**

– **ID = VerticalPanel**



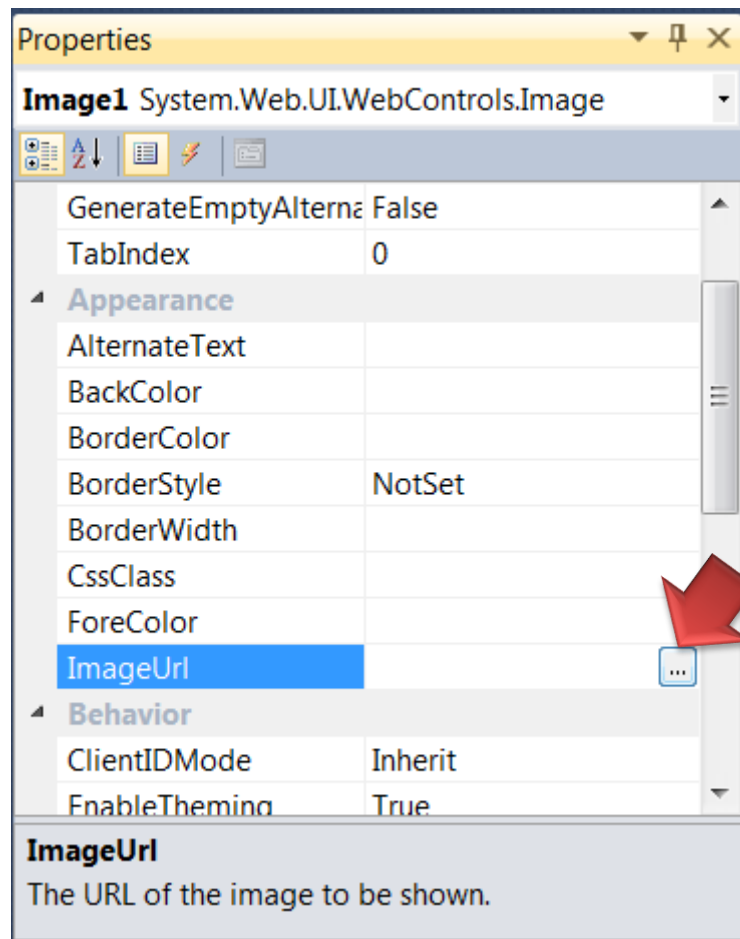
- Drag an **Image** control into the **Panel**.



Example

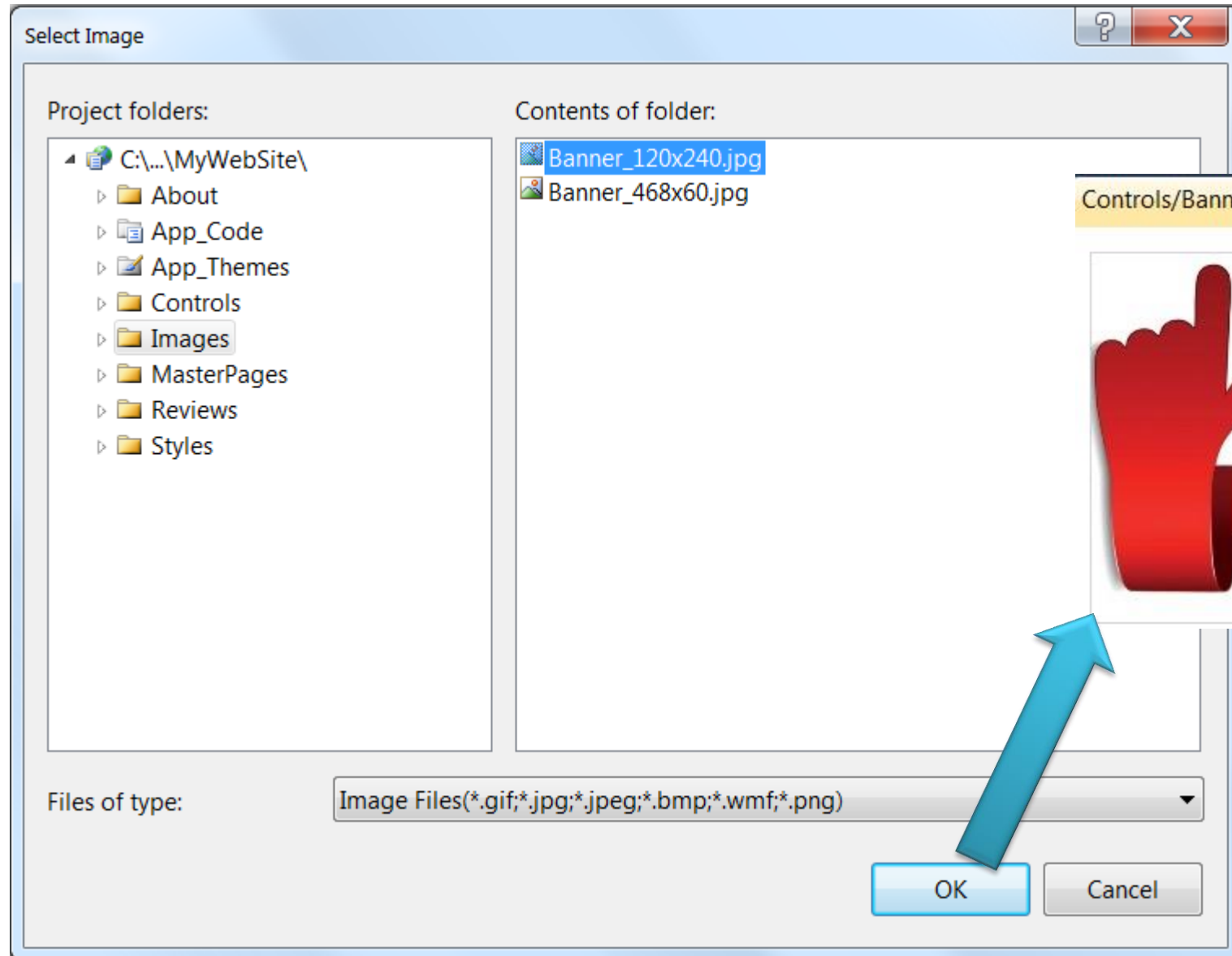
Creating User Control

- In Properties → Select **ImageUrl**



Example

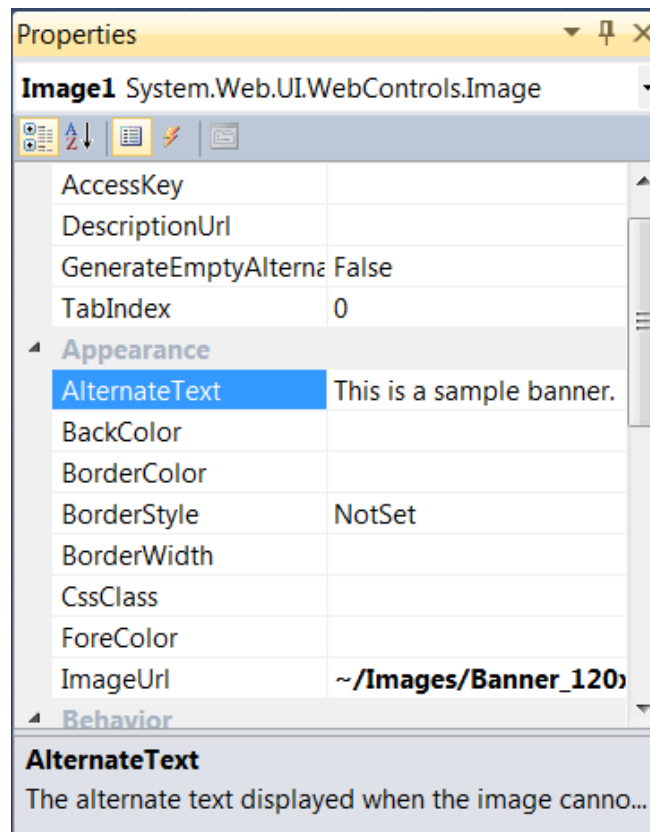
Creating User Control



Example

Creating User Control

- Properties:
 - **AlternateText = This is a sample banner.**



Example

Creating User Control

- In Source View:

```
<asp:Panel ID="VerticalPanel" runat="server">  
    <asp:Image ID="Image1" runat="server" AlternateText="This is a sample banner."  
        ImageUrl="~/Images/Banner_120x240.jpg" />  
</asp:Panel>
```



```
<asp:Panel ID="VerticalPanel" runat="server">  
    <a href="http://bilmuh.ege.edu.tr" target="_blank">  
        <asp:Image ID="Image1" runat="server" AlternateText="This is a sample banner."  
            ImageUrl="~/Images/Banner_120x240.jpg" />  
    </a>  
</asp:Panel>
```

Adding User Control

- Two steps:
 1. Register the control by adding **@Register** to the page or control
 2. Add the tags for the user control to the page and *optionally* set some attributes on it.

```
<%@ Register Src="ControlName.ascx" TagName="ControlName" TagPrefix="uc1" %>
```

**Points to the user control
you want to use**

**The name for the tag that is
used in the control declaration
in the page**

**The prefix of the
TagName
that is used in the control
declaration**

Adding User Control

- When the control is registered, add it to the page using **TagPrefix:TagName** construct.

- **@Register** directive:

```
<%@ Register Src="~/Controls/Banner.ascx" TagName="Banner" TagPrefix="uc1" %>
```

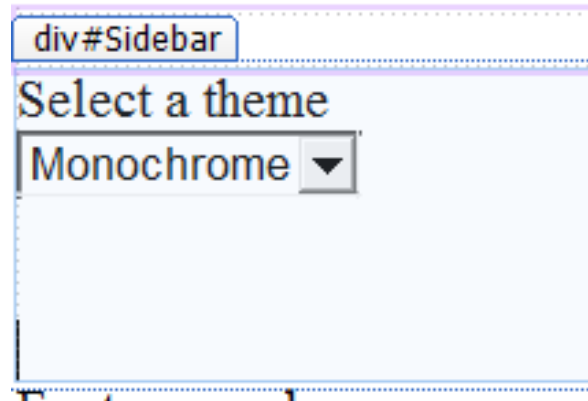
- Add the control to your page:

```
<uc1:Banner ID="Banner1" runat="server" />
```

Example

Adding User Control

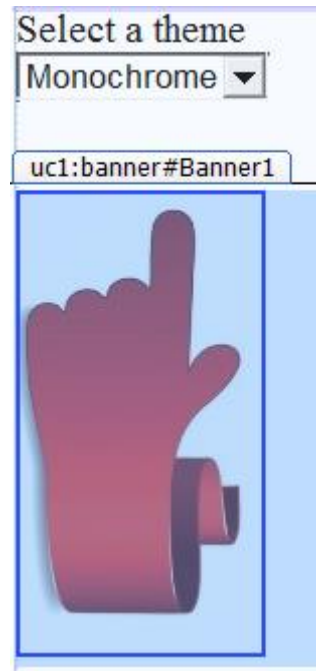
- Open **Frontend.master**
- Press ***Enter*** to create some room after the theme **DropDownList**



Example

Adding User Control

- Drag the file **Banner.ascx** from the **Controls** folder into the empty spot you just created.



Example

Adding User Control

- In Source View:
 - Locate the `@Register` directive at the top of the file.

```
<%@ Register src="../Controls/Banner.ascx" tagname="Banner" tagprefix="uc1" %>
```

- Change the two dots in the `src` attribute to a tilde (~):

```
<%@ Register src="~/Controls/Banner.ascx" tagname="Banner" tagprefix="uc1" %>
```



```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="Frontend.master.cs" Inherits="MasterPages_Frontend" %>
```

```
<%@ Register src="~/Controls/Banner.ascx" tagname="Banner" tagprefix="uc1" %>
```

Example

Adding User Control

- Open **DarkGrey.css** & add:

```
img
{
    border:0
}
```

Example

Adding User Control

- View `Default.aspx` in browser



Site-Wide Registration

- If you have a control that you expect to use **quite often on separate content pages** in your site → You can **register the control globally** in the **web.config** file.
- This way it becomes available throughout the entire site, without the need to register it on every page.

Example

Registering User Control in the Web.config File

- Remove the **@Register** directive from **Frontend.master**
- Open **Web.config** file & add:

```
<pages theme="Monochrome">  
  <controls>  
    <add tagPrefix="Ege" tagName="Banner" src="~/Controls/Banner.ascx"/>  
  </controls>  
</pages>
```

Example

Registering User Control in the Web.config File

- Open **Frontend.master** in Source View
- In *Sidebar* area:

```
<uc1:Banner ID="Banner1" runat="server" />
```



```
<Ege:Banner ID="Banner1" runat="server" />
```

Example

Registering User Control in the Web . config File

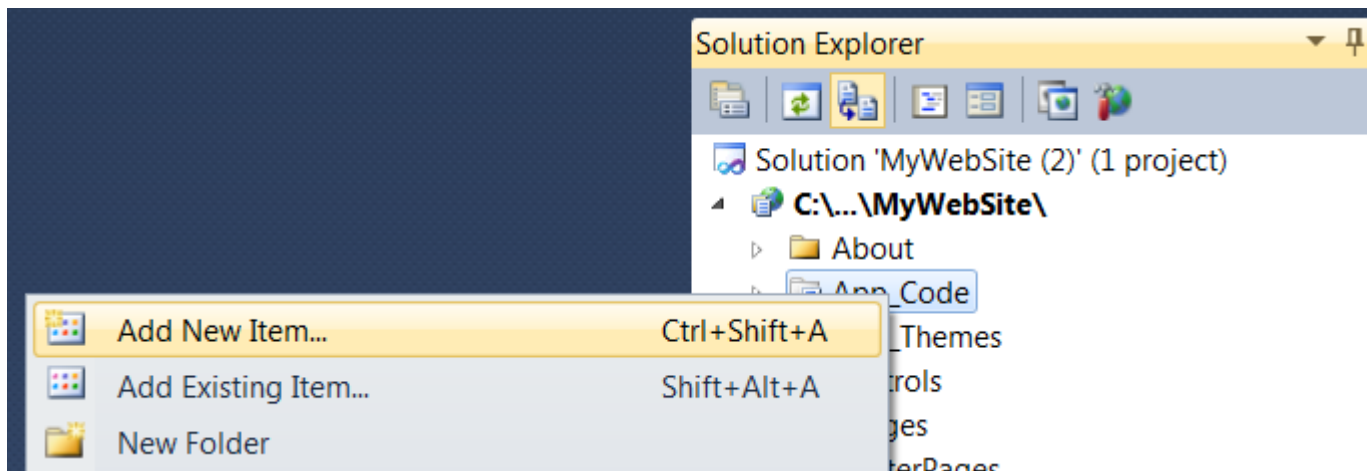
- View `Default.aspx` in browser



Example

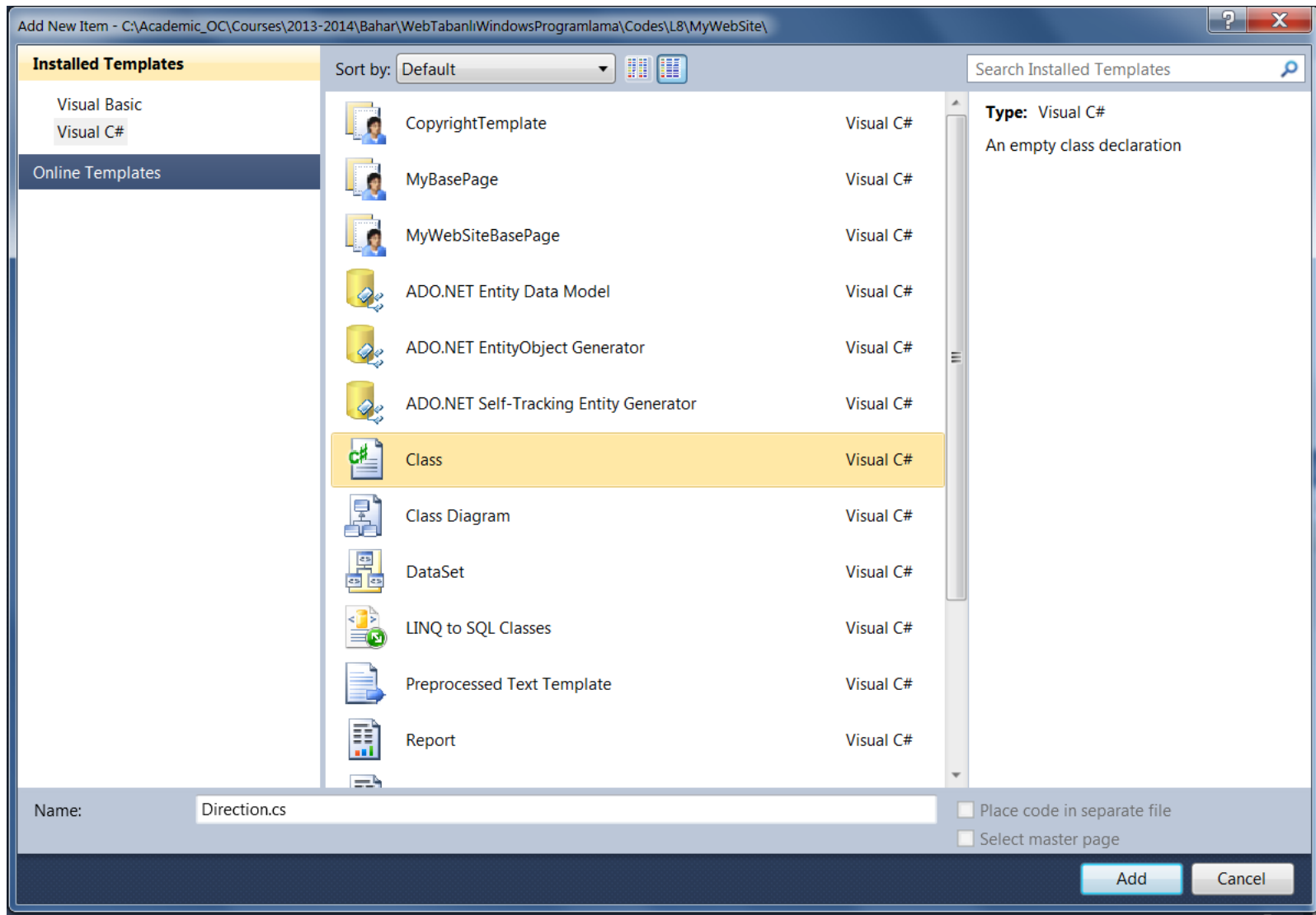
Smarter User Controls

- Right-click **App_Code** folder & **Add New Item**



Example

Smarter User Controls



Example

Smarter User Controls

- Clear the file contents & add:

```
public enum Direction
{
    Horizontal,
    Vertical
}
```

Example

Smarter User Controls

- Open **Banner.ascx.cs**
- Enter **prop** & press *Tab* twice

```
public partial class Controls_Banner : System.Web.UI.UserControl  
{
```

prop

- CssClassPropertyAttribute
- DataKeyPropertyAttribute
- IDReferencePropertyAttribute
- PagePropertiesChangingEventArgs
- prop
- propa
- propdp
- PropertyConverter
- PropertyEntry

, EventArgs e)

prop

Code snippet for an automatically implemented property
Language Version: C# 3.0 or higher

Example

Smarter User Controls

```
public int MyProperty { get; set; }
```

```
protected void Page_Load(object sender, EventArgs e)  
{  
  
}
```



```
public Direction DisplayDirection { get; set; }
```

```
protected void Page_Load(object sender, EventArgs e)  
{  
  
}
```

Example

Smarter User Controls

- View **Banner.ascx** in Source View
- Copy the entire **<asp:Panel>** and paste it right below it.

```
<asp:Panel ID="VerticalPanel" runat="server">
    <a href="http://bilmuh.ege.edu.tr" target="_blank">
        <asp:Image ID="Image1" runat="server" AlternateText="This is a sample banner."
            ImageUrl="~/Images/Banner_120x240.jpg" />
    </a>
</asp:Panel>
<asp:Panel ID="HorizontalPanel" runat="server">
    <a href="http://bilmuh.ege.edu.tr" target="_blank">
        <asp:Image ID="Image2" runat="server" AlternateText="This is a sample banner."
            ImageUrl="~/Images/Banner_468x60.jpg" />
    </a>
</asp:Panel>
```

Example

Smarter User Controls

- Open **Banner.ascx.cs**

```
protected void Page_Load(object sender, EventArgs e)
{
    HorizontalPanel.Visible = false;
    VerticalPanel.Visible = false;

    switch (DisplayDirection)
    {
        case Direction.Horizontal:
            HorizontalPanel.Visible = true;
            break;
        case Direction.Vertical:
            VerticalPanel.Visible = true;
            break;
    }
}
```

Example

Smarter User Controls

- Open **Frontend.master**

```
<Ege:Banner ID="Banner1" runat="server" />
```



```
<Ege:Banner ID="Banner1" runat="server" DisplayDirection="Horizontal" />
```


Example

Smarter User Controls

- View `Default.aspx` in browser



Example

Smarter User Controls

- Open **Frontend.master**

```
<Ege:Banner ID="Banner1" runat="server" DisplayDirection="Horizontal" />
```



```
<Ege:Banner ID="Banner1" runat="server" DisplayDirection="Vertical" />
```

Example

Smarter User Controls

- Open **AboutMe.aspx**
- Add some text

```
<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="cpMainContent" Runat="Server">
  This page is about me.
</asp:Content>
```

Example

Smarter User Controls

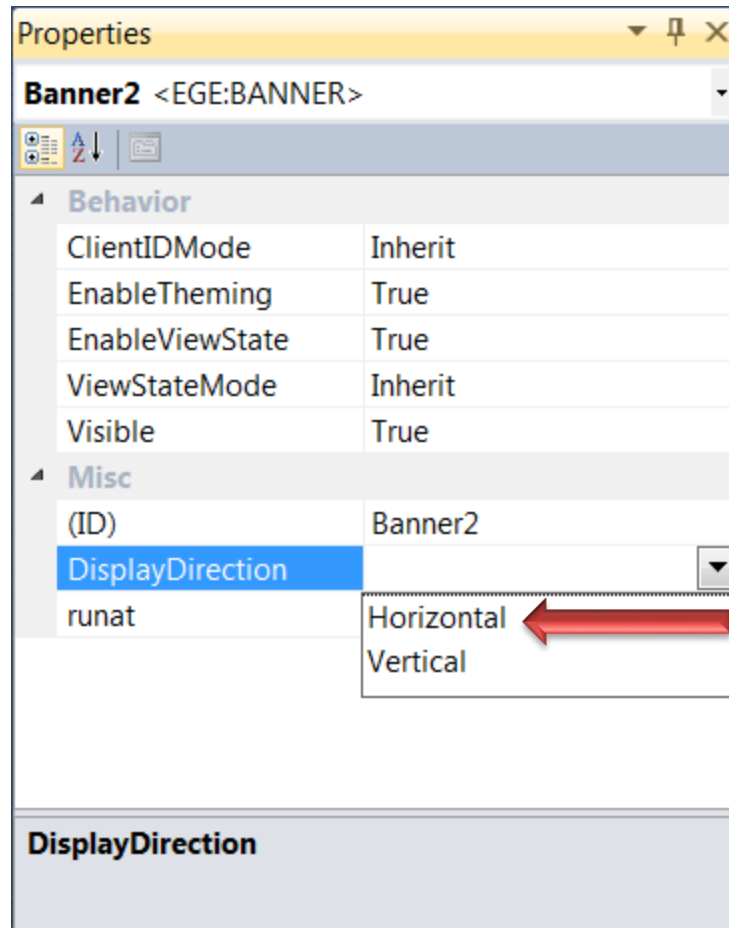
- In Design View of **AboutMe.aspx**
- After the text, drop the **Banner.ascx** file



Example

Smarter User Controls

- Select **Banner2** control



Example

Smarter User Controls

- View **AboutMe.aspx** in browser



[Home](#)


[Home](#) > [About](#) > [About Me](#)

Select a theme

[Reviews](#)

[By Genre](#)
[All Reviews](#)

This page is about me.

DarkGrey 

[About](#)

[Contact](#)
[About Me](#)



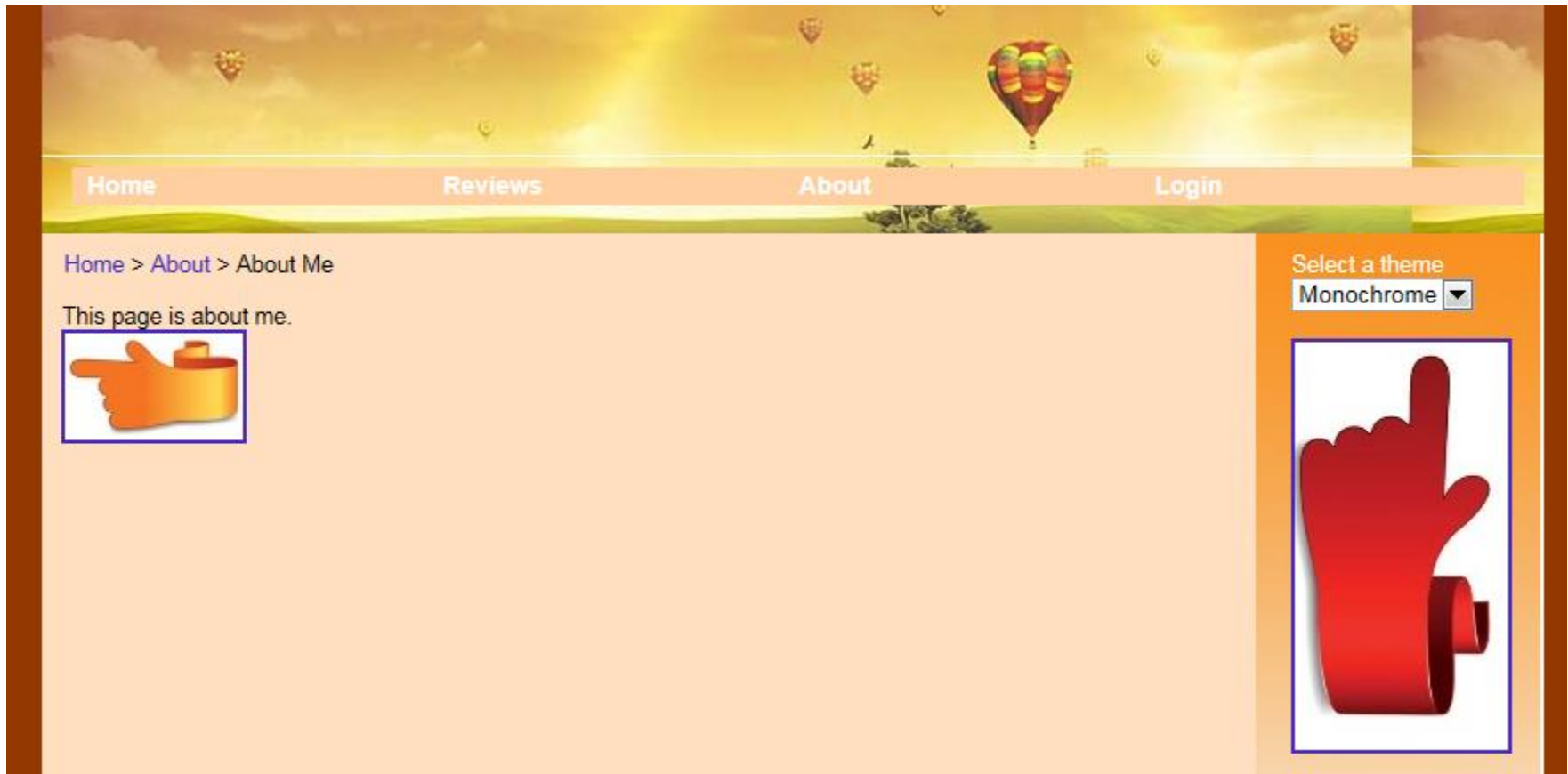
[Login](#)



Example

Smarter User Controls

- View **AboutMe.aspx** in browser



Example

NavigateUrl

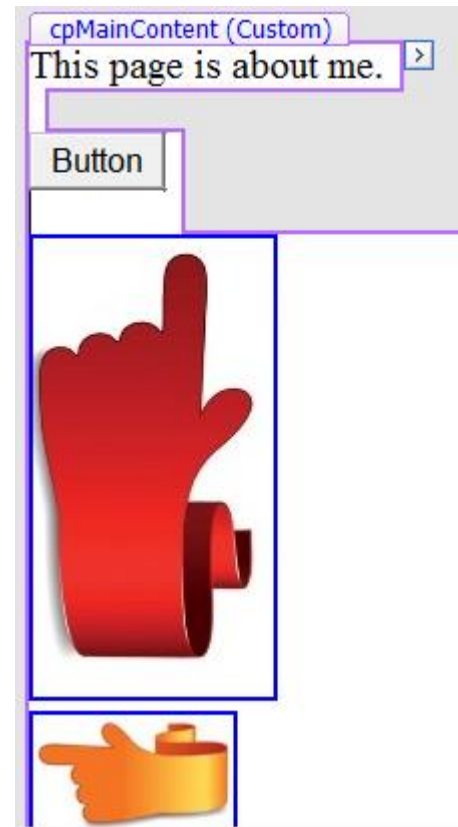
- Open **AboutMe.aspx.cs** & add

```
protected void Page_Load(object sender, EventArgs e)
{
    if (!Page.IsPostBack)
    {
        Banner2.DisplayDirection = Direction.Vertical;
    }
}
```


Example

NavigateUrl

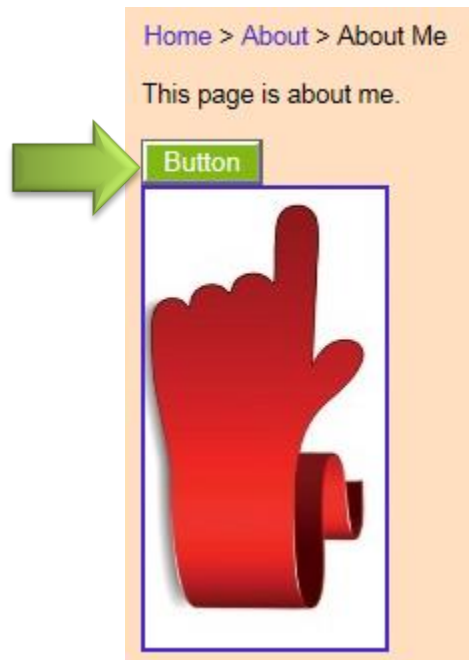
- In Design View → Add a **Button** on top of the **Banner.ascx** control.



Example

NavigateUrl

- View **AboutMe.aspx** in browser.



Tanıtım

Genel Bilgiler

Tarihçe

Bölümümüzde Bugün... (Günlük | Haftalık | Aylık)



Erasmus Öğrenim Hareketliliği Yabancı Dil Yazılı Sınavı Sonuçları BİLMUH

Example

NavigateUrl

- Open **Banner.ascx.cs** & add

```
public string NavigateUrl
{
    get
    {
        object _navigateUrl = ViewState["NavigateUrl"];
        if (_navigateUrl != null)
        {
            return (string)_navigateUrl;
        }
        else
        {
            return "http://bilmuh.ege.edu.tr"; //Return a default value
        }
    }
    set
    {
        ViewState["NavigateUrl"] = value;
    }
}
```

Example

NavigateUrl

- In Source View of **Banner.ascx**
- Add **runat="server"** and **id** for both links.

```
<a href="http://bilmuh.ege.edu.tr" target="_blank" runat="server" id="VerticalLink">
```



```
<a href="http://bilmuh.ege.edu.tr" target="_blank" runat="server" id="HorizontalLink">
```

Example

NavigateUrl

- Open **Banner.ascx.cs** & modify the **Page_Load**

```
protected void Page_Load(object sender, EventArgs e)
{
    HorizontalPanel.Visible = false;
    VerticalPanel.Visible = false;

    switch (DisplayDirection)
    {
        case Direction.Horizontal:
            HorizontalPanel.Visible = true;
             HorizontalLink.HRef = NavigateUrl;
            break;
        case Direction.Vertical:
            VerticalPanel.Visible = true;
             VerticalLink.HRef = NavigateUrl;
            break;
    }
}
```

Example

NavigateUrl

- Open **AboutMe.aspx.cs** & modify

```
public partial class About_Default : BasePage
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!Page.IsPostBack)
        {
            Banner2.NavigateUrl="http://www.ege.edu.tr";
        }
    }
}
```

Example

NavigateUrl

- View **AboutMe.aspx** in browser



View State

- Please read:

<http://msdn.microsoft.com/en-us/library/ms972976.aspx>