

Multiple Document Interface (MDI)

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Single Document Interface (SDI)

- SDI uygulamaları aynı anda **sadece bir pencereyi ya da dokümanı** destekler.
 - Notepad
 - Paint
- Sınırlı yetenekleri vardır.
- Kullanıcı, birden fazla dokümanı düzenlemek için SDI uygulamasının diğer örneklerini yürütmelidir.

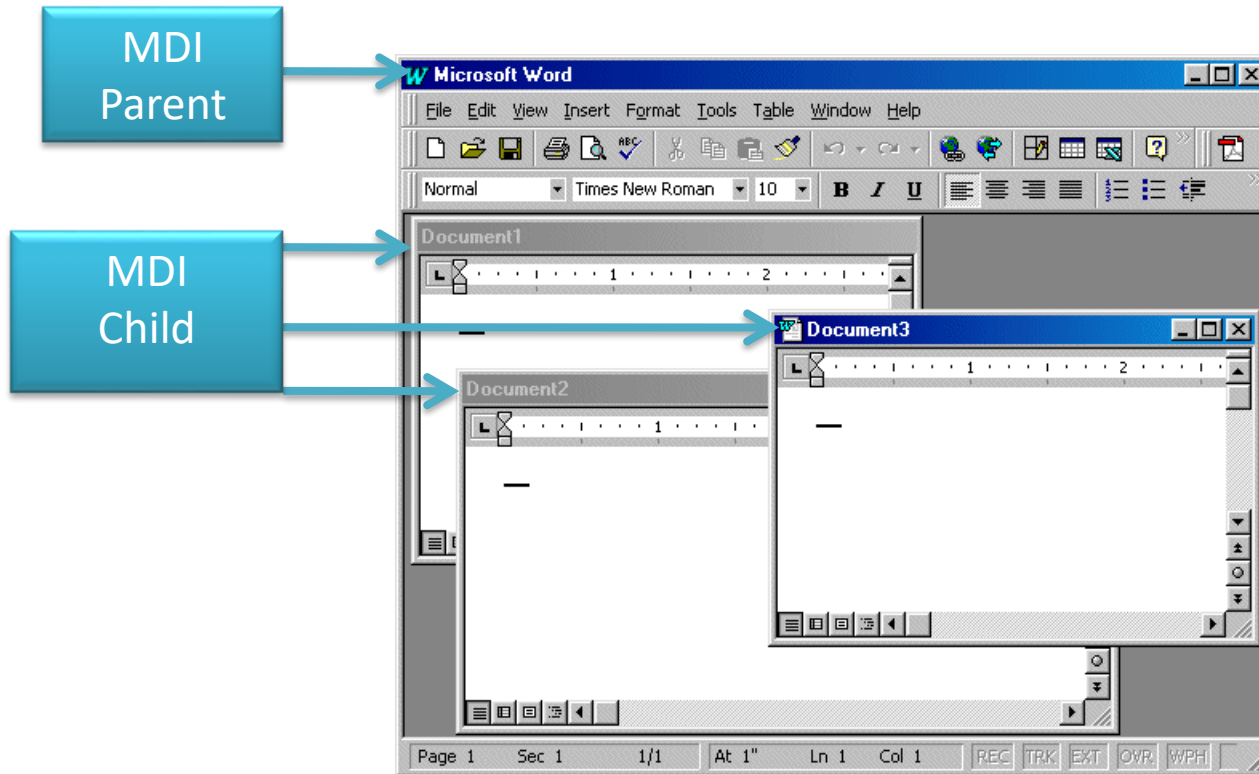
Multiple Document Interface (MDI)

- Kullanıcının birden fazla dokümanı **aynı anda** düzenlemesine izin verir.
 - Office ürünleri
 - Photoshop
- MDI uygulamaları daha karmaşıktır.

Multiple Document Interface (MDI)

- Ana pencere → **Parent Window**
 - MDI uygulamasında bir *parent window* olur.
- Uygulama içerisindeki her bir pencere → **Child Window**
 - MDI uygulamasında birden fazla *child window* olabilir.

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- **Child Window**

- Child window **kendi parent'ı** olamaz.
- Kendi parent'ının dışına taşınamaz.
- Her bir child window işlevsel olarak diğer child window'lardan farklı olabilir.
 - Ancak, hepsinin parent'ı aynı olabilir.
 - *Child1*: Resim düzenleme
 - *Child2*: Doküman düzenleme
 - *Child3*: Network trafiği görüntüleme

Multiple Document Interface (MDI)

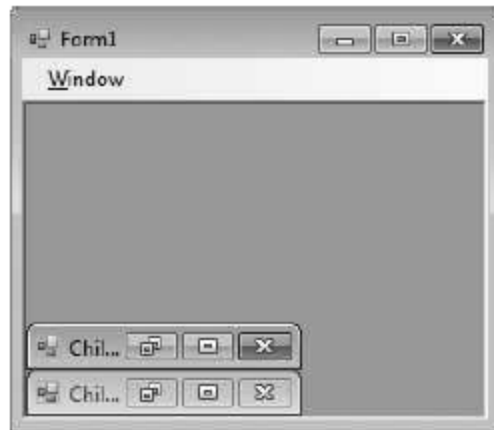
- VS'da yeni bir Form yaratıldığında;
 - `IsMdiContainer = true`

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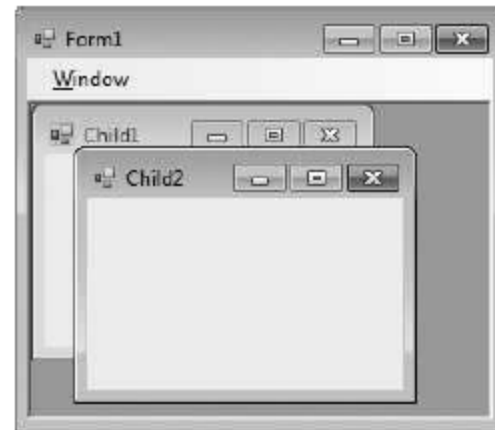
MDI Form properties, a method and an event	Description
<i>Common MDI Child Properties</i>	
IsMdiChild	Indicates whether the Form is an MDI child. If true, Form is an MDI child (read-only property).
MdiParent	Specifies the MDI parent Form of the child.
<i>Common MDI Parent Properties</i>	
ActiveMdiChild	Returns the Form that is the currently active MDI child (returns null if no children are active).
IsMdiContainer	Indicates whether a Form can be an MDI parent. If true, the Form can be an MDI parent. The default value is false.
MdiChildren	Returns the MDI children as an array of Forms.
<i>Common Method</i>	
LayoutMdi	Determines the display of child forms on an MDI parent. The method takes as a parameter an MdiLayout enumeration with possible values ArrangeIcons, Cascade, TileHorizontal and TileVertical.
<i>Common Event</i>	
MdiChildActivate	Generated when an MDI child is closed or activated.

MdiLayout Değerleri

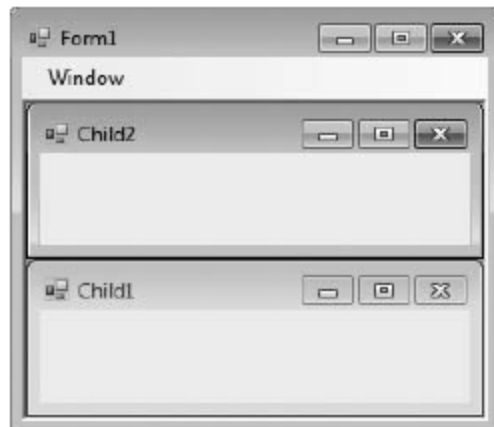
a) ArrangeIcons



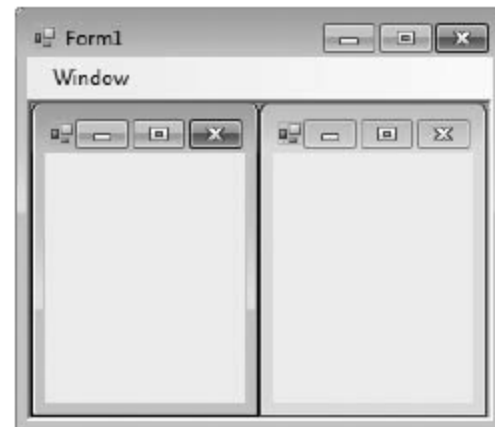
b) Cascade



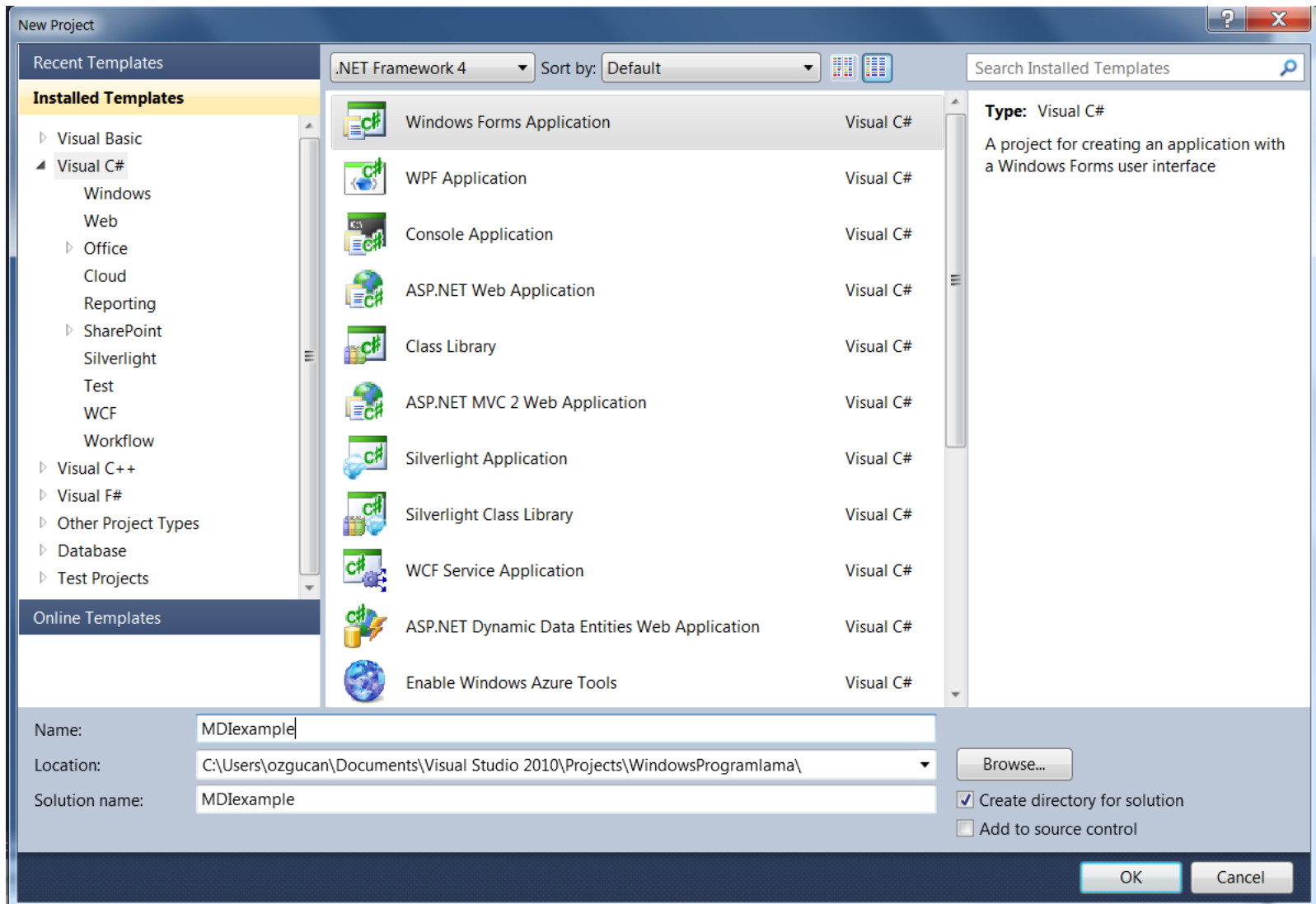
c) TileHorizontal



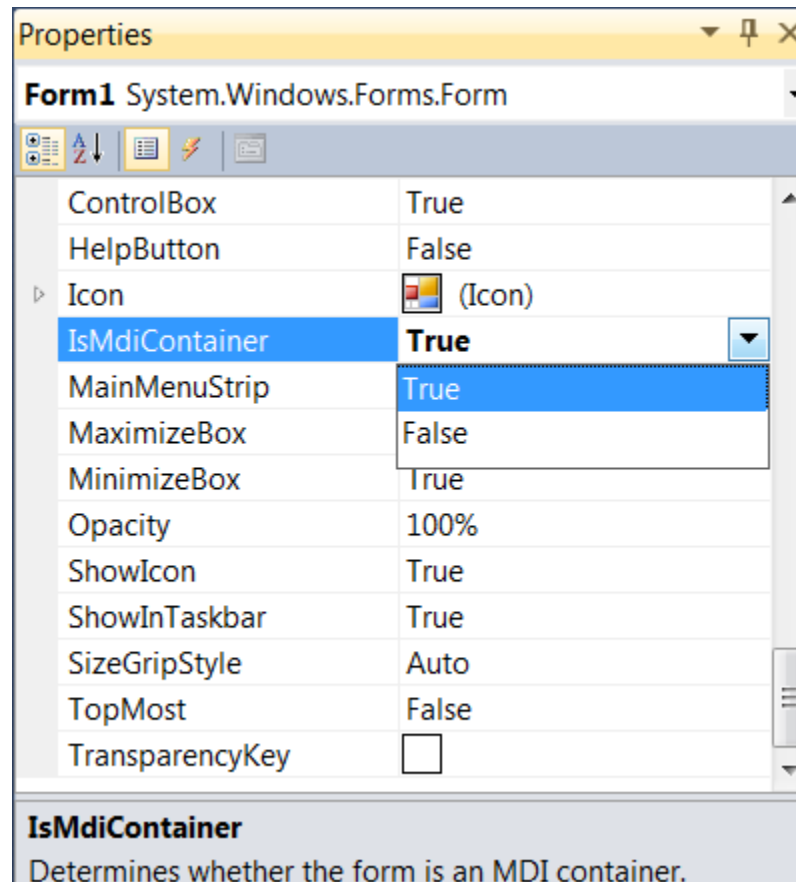
d) TileVertical



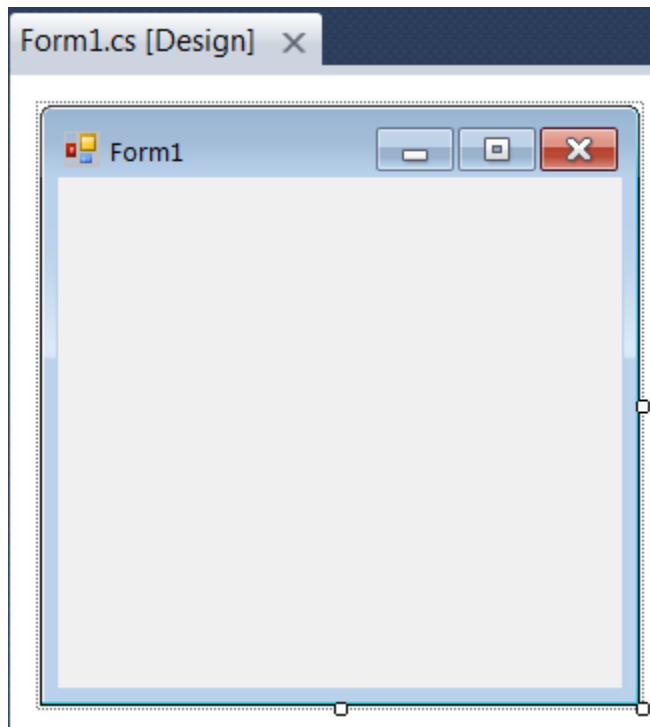
Uygulama - MDI



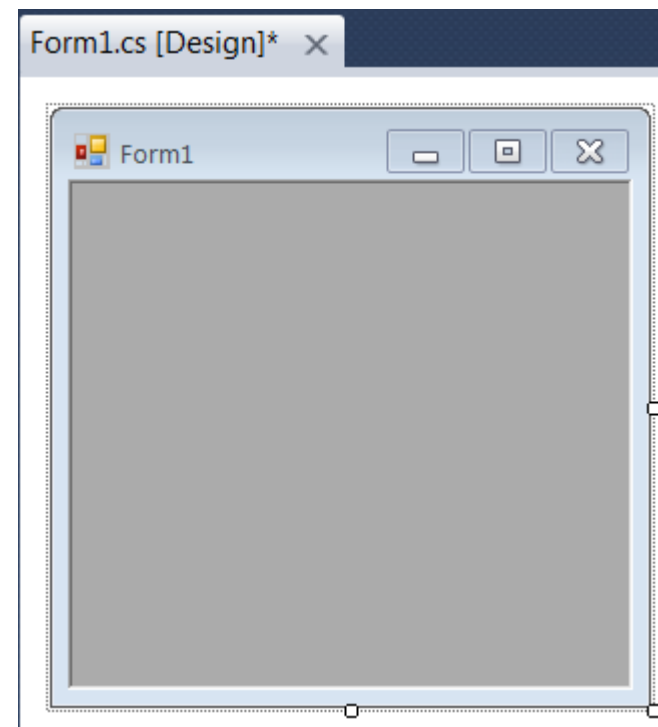
Uygulama - MDI



Uygulama - MDI



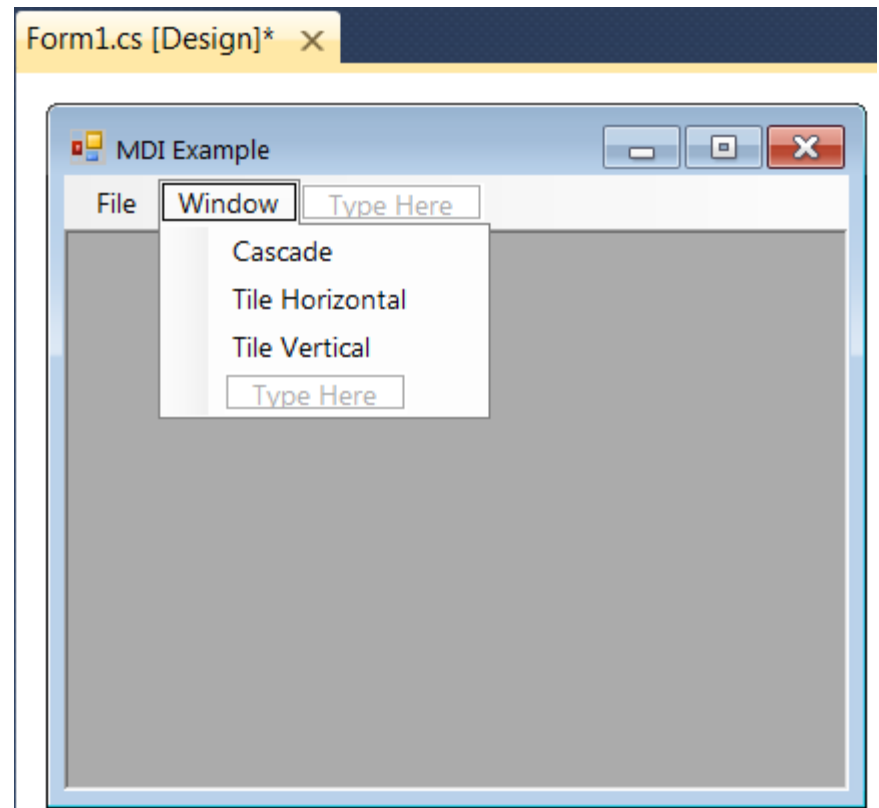
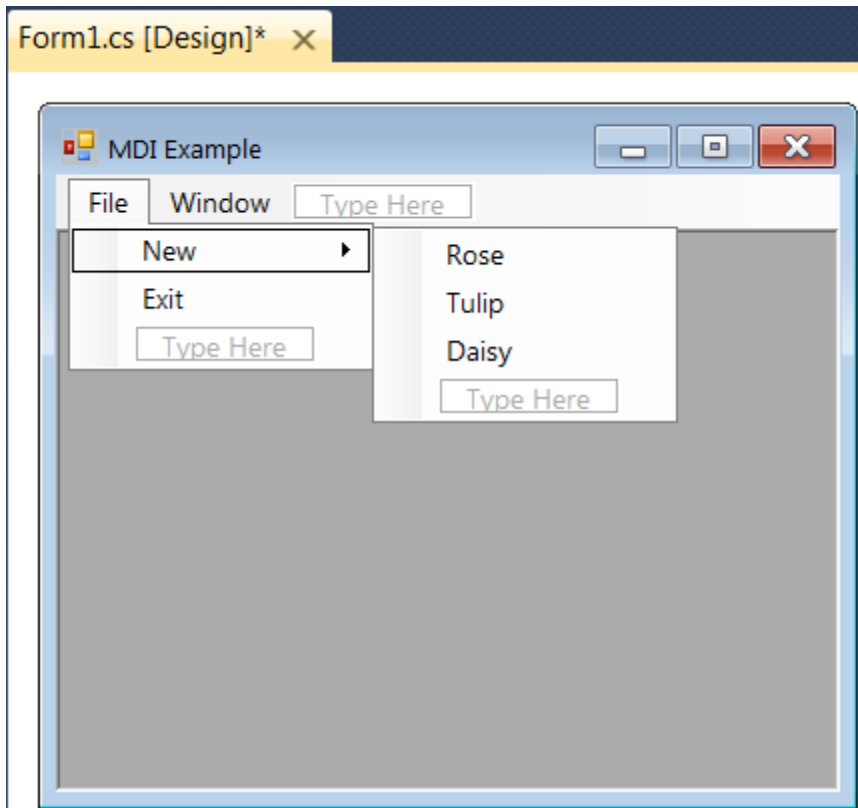
SDI



MDI

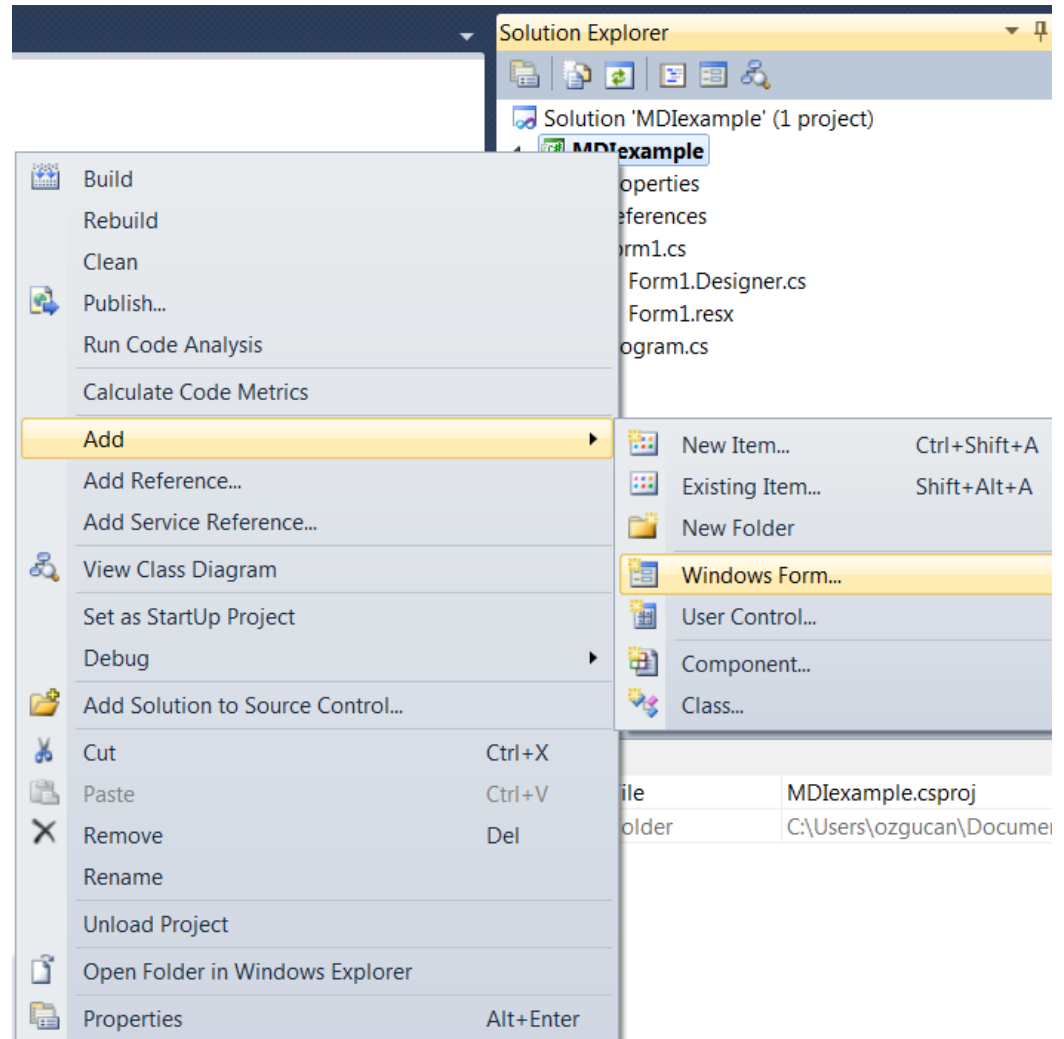
Uygulama - MDI

- MenuStrip

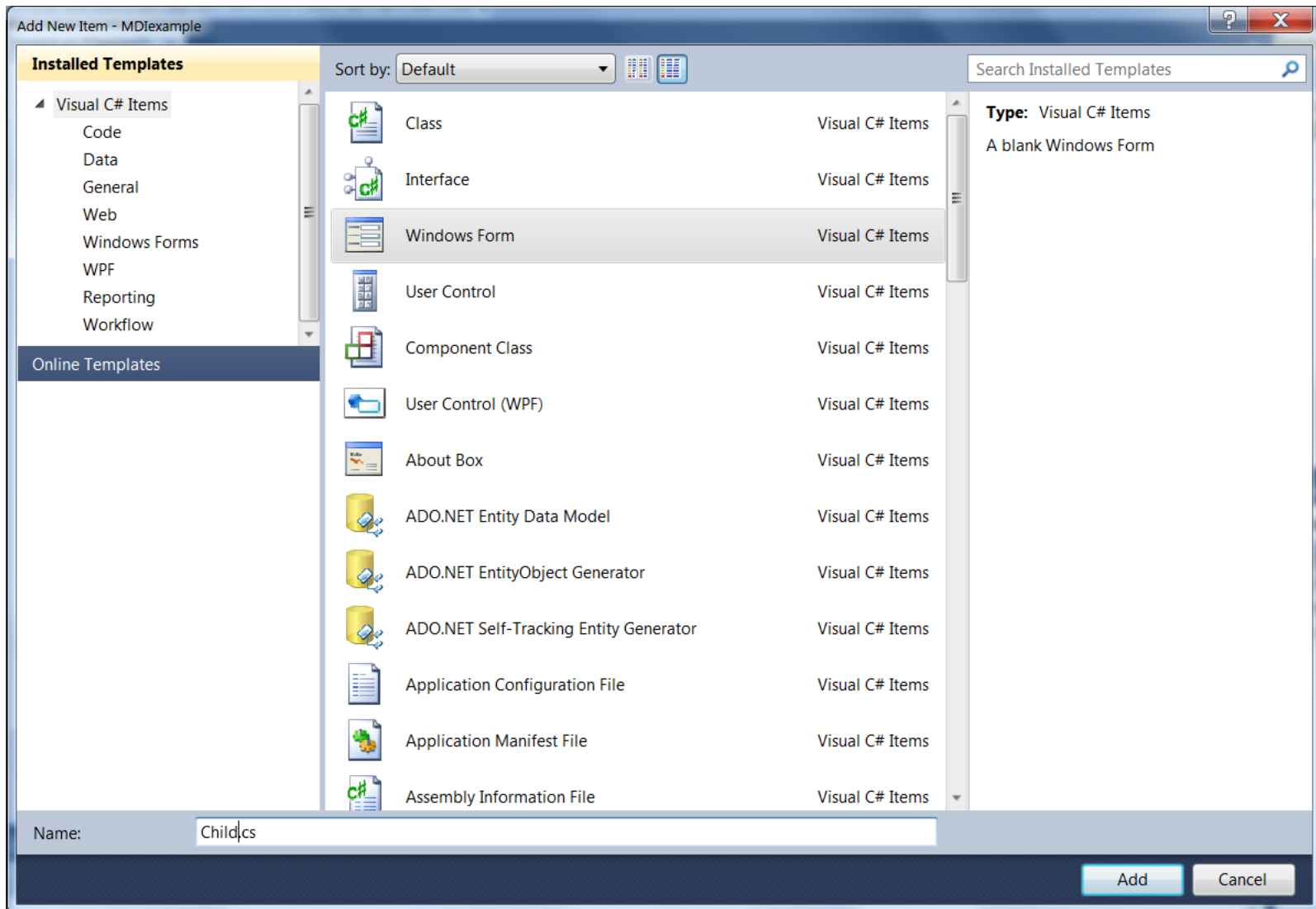


Uygulama - MDI

- Child Ekleme



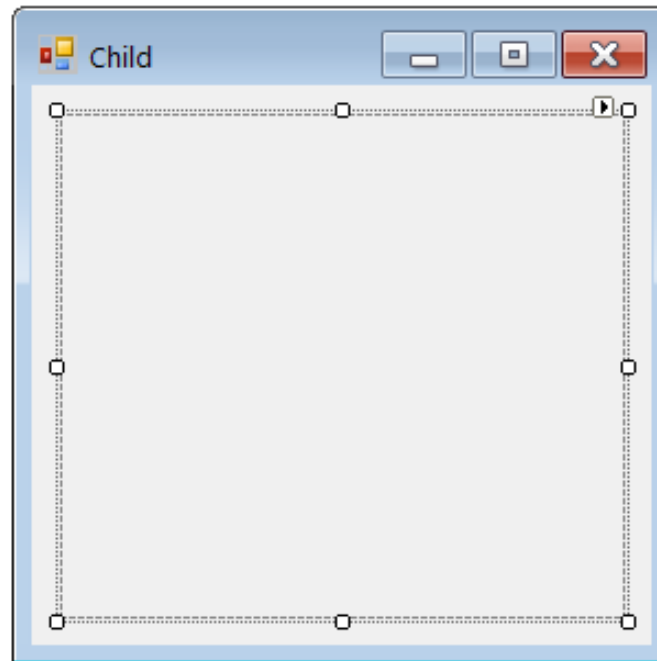
Uygulama - MDI



Uygulama - MDI

- PictureBox
 - Name = displayPictureBox

Form1.cs Child.cs [Design]* X Form1.cs [Design]

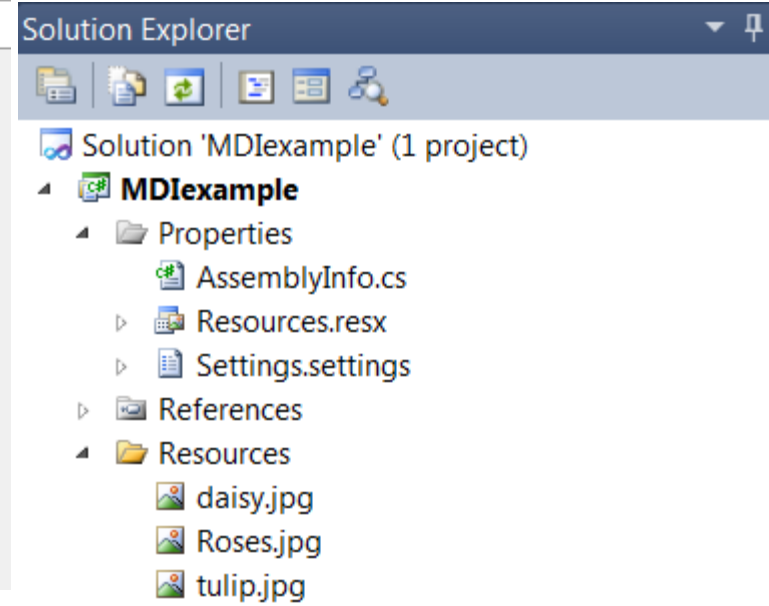
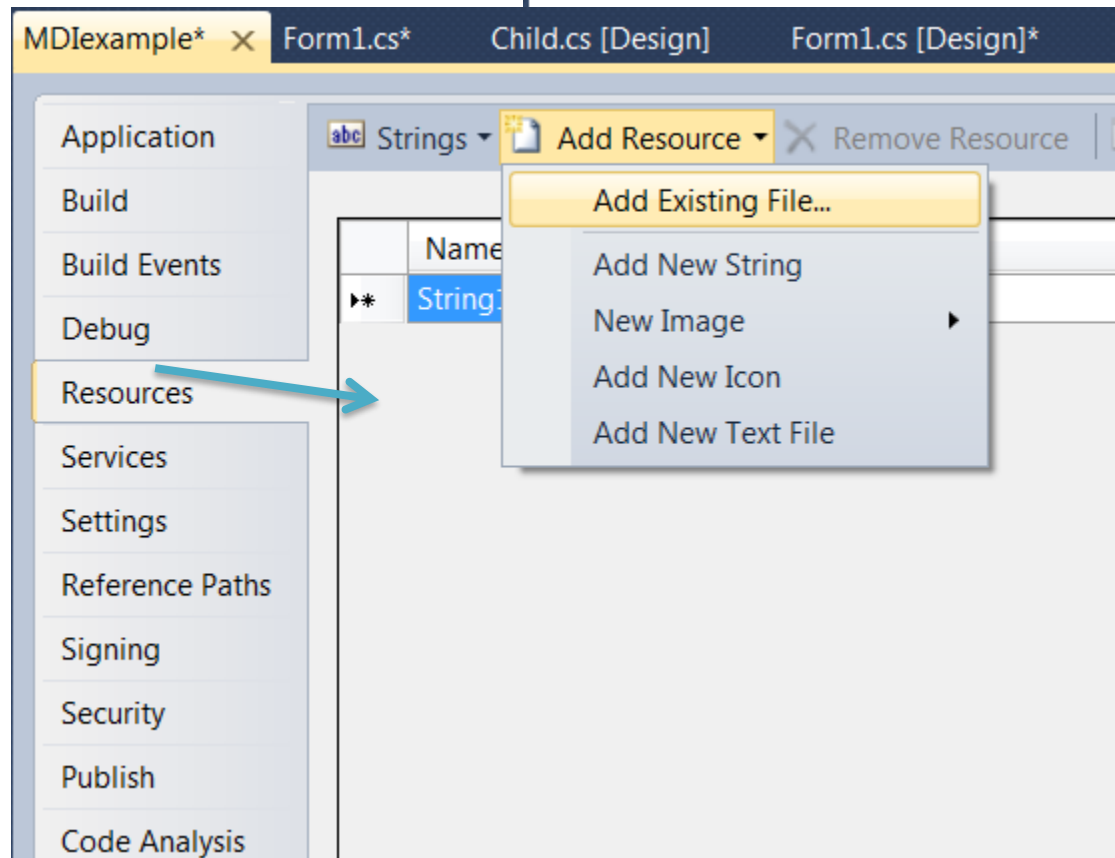
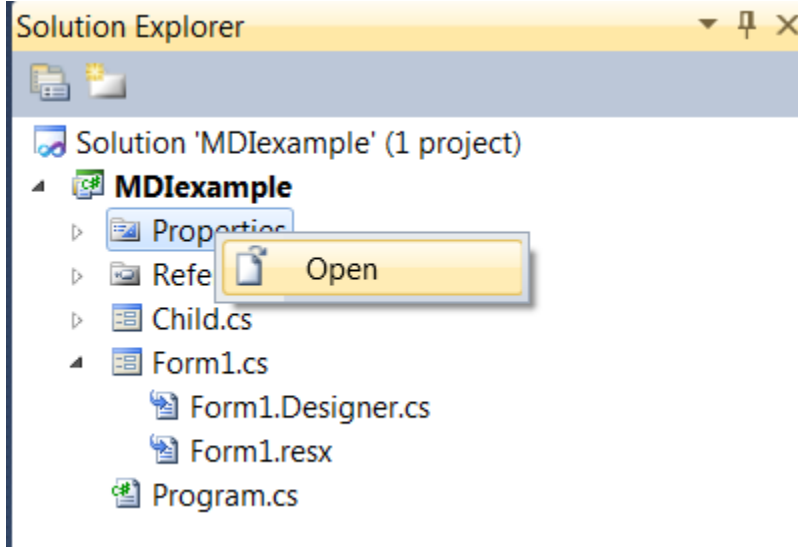


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```
public partial class Child : Form
{
    public Child(string title, string resourceName)
    {
        InitializeComponent();

        Text = title; // set title text

        // set image to display in PictureBox
        displayPictureBox.Image =(Image)(Properties.Resources.ResourceManager.GetObject(resourceName));
    }
}
```



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```
private void roseToolStripMenuItem1_Click(object sender, EventArgs e)
{
    Child child = new Child("Rose", "Roses"); // create new child
    child.MdiParent = this; // set parent
    child.Show(); // display child
}
```

```
private void tulipToolStripMenuItem_Click(object sender, EventArgs e)
{
    Child child = new Child("Tulip", "tulip"); // create new child
    child.MdiParent = this; // set parent
    child.Show(); // display child
}
```

```
private void daisyToolStripMenuItem_Click(object sender, EventArgs e)
{
    Child child = new Child("Daisy", "daisy"); // create new child
    child.MdiParent = this; // set parent
    child.Show(); // display child
}
```

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```
private void exitToolStripMenuItem_Click(object sender, EventArgs e)
{
    Application.Exit();
}
```

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```
private void cascadeToolStripMenuItem_Click(object sender, EventArgs e)
{
    this.LayoutMdi(MdiLayout.Cascade);
}

private void tileHorizontalToolStripMenuItem_Click(object sender, EventArgs e)
{
    this.LayoutMdi(MdiLayout.TileHorizontal);
}

private void tileVerticalToolStripMenuItem_Click(object sender, EventArgs e)
{
    this.LayoutMdi(MdiLayout.TileVertical);
}
```

