

# Silverlight Demo for Beginners

A Step Ahead Series

FROM HYDERABADTECHIES

Author	:	Gaurav Arora
Reviewer	:	ChanderShekhar Thota
Created on	:	Dec 18 <sup>th</sup> , 2009
Website	:	<a href="http://www.hyderabatechies.info">http://www.hyderabatechies.info</a>

# ABOUT AUTHOR

Gaurav Arora is Microsoft Certified Technical Specialist. He is M.Phil(Comp. Sc.), Masters in Computer Applications. Gaurav is an author of various online/offline articles, tutorials, including Silverlight, Asp.net, WCF, LINQ etc. He is the Founder, Webmaster and Sr. Editor of Technical communities viz. [Silverlight Club](#) and [Dotnetspider](#).

## TECH WAR 2009

Gaurav is the co-founder of [MsDotNetHeaven](#) a free I.T. online educational web portal.

# ABOUT SESSION

**This session of Silverlight is mainly focused on the basics of Silverlight. We try to give you the brief idea about the Silverlight viz. what, why and where.**

**It's a series of continued session as soon as we will go forward will get in some advance versions of the session.**

**This series is just beginning of our long path...**



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  - Why Use of Silverlight?
  - Available versions
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  - Our First Silverlight Application
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# Know Silverlight

In Simple words, we can say Silverlight is Microsoft's innovation in the RIA era.

Its nothing but a simple Cross-browser, cross-platform client-framework, which helpful to deliver RIA [Rich Internet Applications] embedded in web pages for both designers and developers.

So, silverlight is a framework which provides us to develop and design RIA.

# What is Silverlight?

- A Microsoft product.
- It's a web application framework
- Encient famous name is WPF [Windows Presentation Foundation]
- Cross-browser, Cross-Platform
- Provides ease to build RIA
- Provides to develop applications, easily embed with Web Pages
- Based on .Net Platform



# Why use Silverlight?

There are number of reasons for Why to Use Silverlight :

- It provides us great UI
- It provides integrated XAML declarative language with .Net framwork
- Silverlight appeals to both Designers and Developers
- It's a Cross-browser, cross-platform
- Installation is easy
- Dynamically implementation of data and it not available outside for search engines.



# Available versions

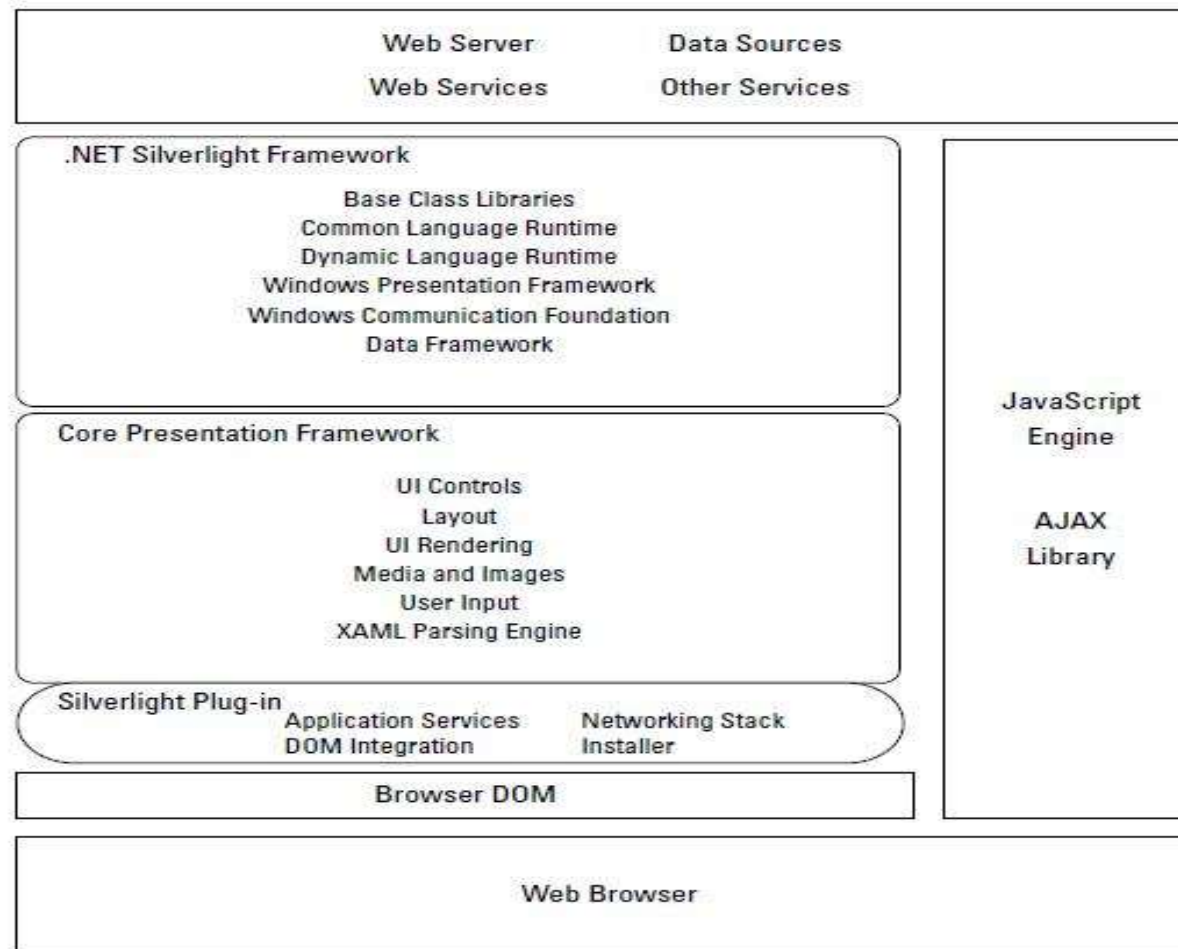
Microsoft© building and giving more flexibility in this Framework by providing new releases.

The available versions till date are :

- Silverlight 1.0 : Initial release
- Silverlight 2.0 : New features and more powerful to initial release
- Silverlight 3.0 : With some new extensions and features
- Silverlight 4.0 Beta : Now available

<http://silverlight.net/getstarted/Silverlight-4-beta>

# Overview: Framework Architecture





# Overview: Framework Architecture

The Silverlight framework allows applications to access Web services, databases, Web servers, and other data sources to acquire data that is displayed in the UI. It also allows the application to integrate with the Web page DOM as well as AJAX and JavaScript to enhance the functionality of the Web page.

There are many Code-Breaking changes in new versions as a scope of this session, we are not discussing all here, refer to : [Code-Breaking Changes](#)

# Silverlight Plug-in

Ok, now lets check what is Silverlight Plug-in

- Silverlight Plug-in is very lightweight component
- Essential for users to access, Silverlight applications
- Easy to download and install, consume less disk space
- It provides great extensive support for both designers and developers



# Silverlight : Core presentation

Its nothing but a sub-set of WPF [Windows Presentation Foundation]

- XAML Parser
- UI render
- Layout
- Controls
- Data Binding
- Input
- DRM [Digital rights Management]

<<We are not going in the depth of above, in this session>>

# .Net Silverlight Framework

- CLR [Common Language Runtime]
- BCL [Base Class Library]
- DLR [Dynamic Language Runtime]
- WPF [Windows Presentation Foundation]
- WCF [Windows Communication Foundation]
- Data Framework

<<We are not going in the depth of above, in this session>>



# Architecture : Silverlight Application

## Managed Code

.Net Language  
Dynamic Runtime Languages  
Logics & Functionality  
Communication & Data

## Managed Code [XAML]

UI  
Input Controls  
Layout  
Animation & Transformation

## Web Page Object

Embedded HTML  
Embedded ASP.NET

# Setup SDE

- Install the developer tools for Silverlight
  - Following are the steps direct how to Set up the Environment?
    1. Install Visual Studio 2008 or higher with Visual Web Developer Feature
    2. Install SilverLight Plug-in: download Silverlight Plug-in from <http://www.microsoft.com/silverlight> and Install Silverlight, make sure you have uninstalled all previous versions of silverlight



# How to install SDK

- Goto : <http://www.silverlight.net/GetStarted>
- Install Expression Blend
- [Download Silverlight Toolkit](#)
- [Download .Net RIA services](#)

# Silverlight on Linux Platform

The version Moonlight, created by team of the Mono Project at Novell, provides a plug-in for Linux browser and an SDK to develop Silverlight application on the Linux Platform, it is downloadable from : [go-mono.com/moonlight](http://go-mono.com/moonlight)

Lunareclips is the IDE for designing the XAML elements available at : [Lunareclips](http://Lunareclips)



# Overview : Silverlight Development Tools

- Visual Studio 2008 or above : provides the facility of .Net integration
- Expression Blend : Provides great facility to design application
- Expression Encoder : Provides the facility for Media elements
- XAML : A scripting language provide extensive facility for vector graphics

# How to start application

- Choose your IDE
- Select language
- Select platform
- Start Building



# Our First Silverlight application

Following are the initial steps to give the overview to just start first application:

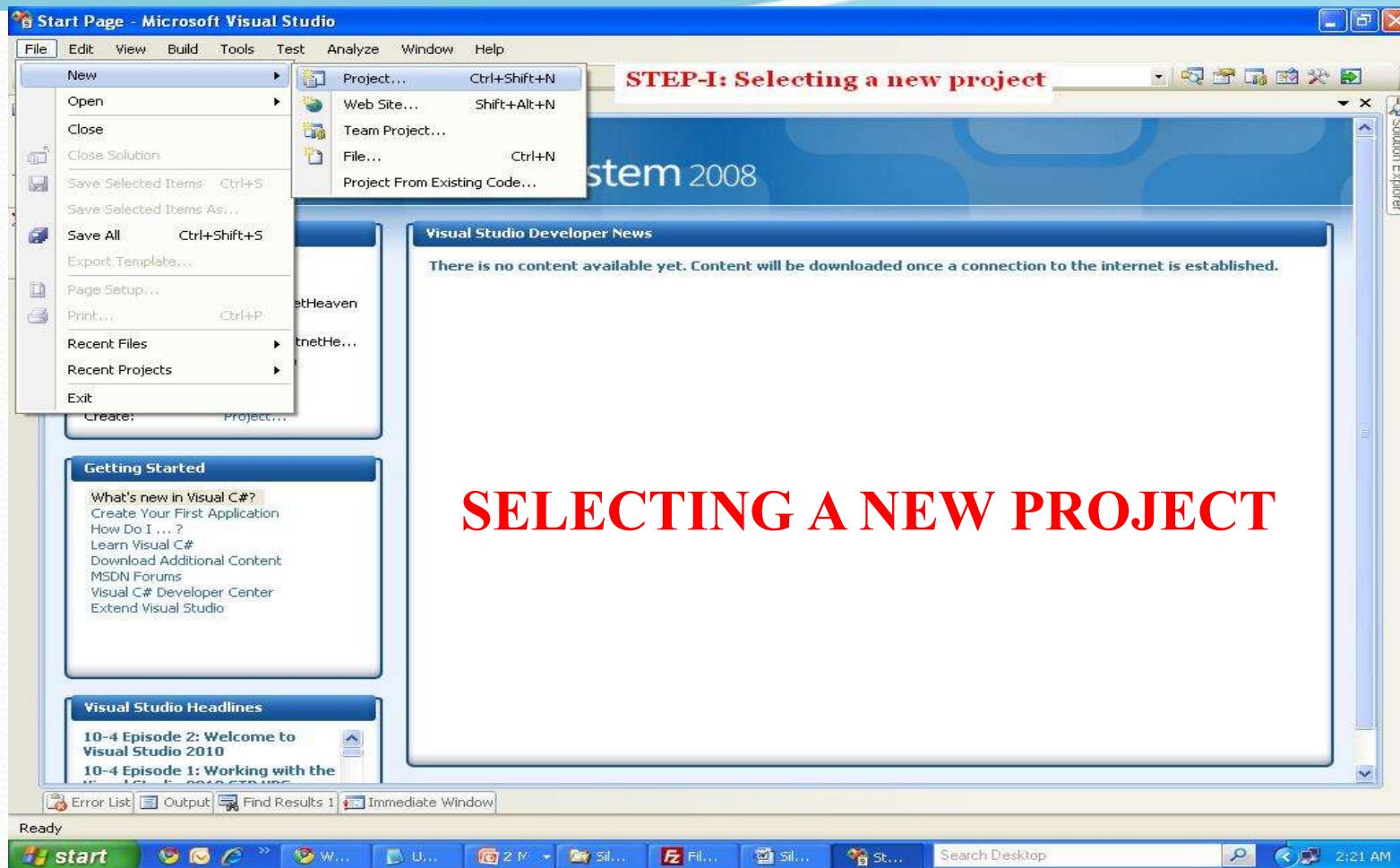
- Select File -> New -> Project from Main Menu of Visual Studio
- Select C# / Visual Basic from the project types
- From Template list select Silverlight Template
- Enter project name and location then create a new project.
- To host Silverlight within the project, select generate HTML test page.

# Our First Silverlight application

- Finally click ok
- The page.xaml appears
- From toolbox drag and drop any control on the page
- Modify the control and then save the page.xaml file
- To get into code-behind double click on the control
- Write some test message : Like “Hello I am Started!”.
- Now build and test the changes



# Demo - Silverlight application

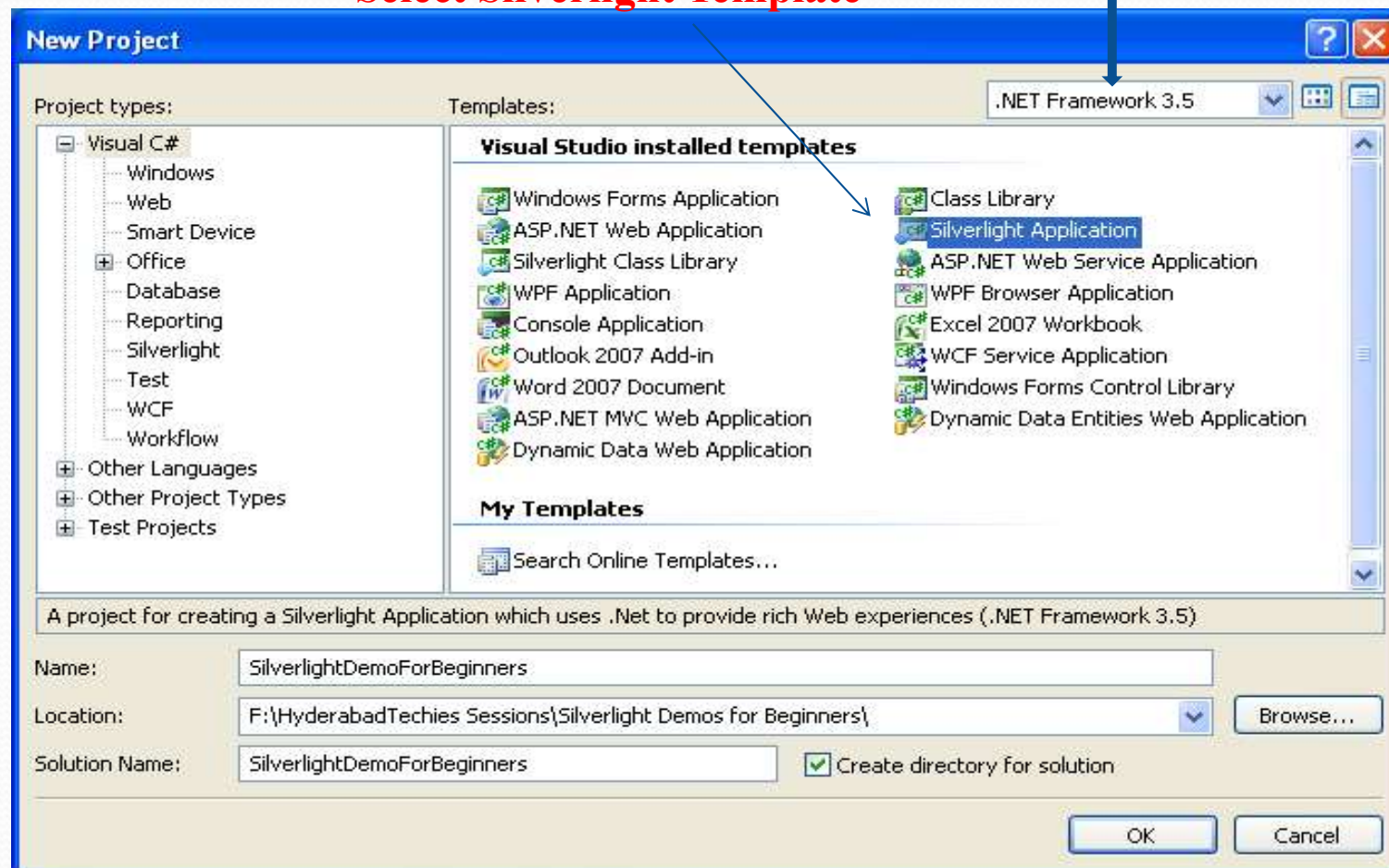


**SELECTING A NEW PROJECT**

# Selecting Silverlight application

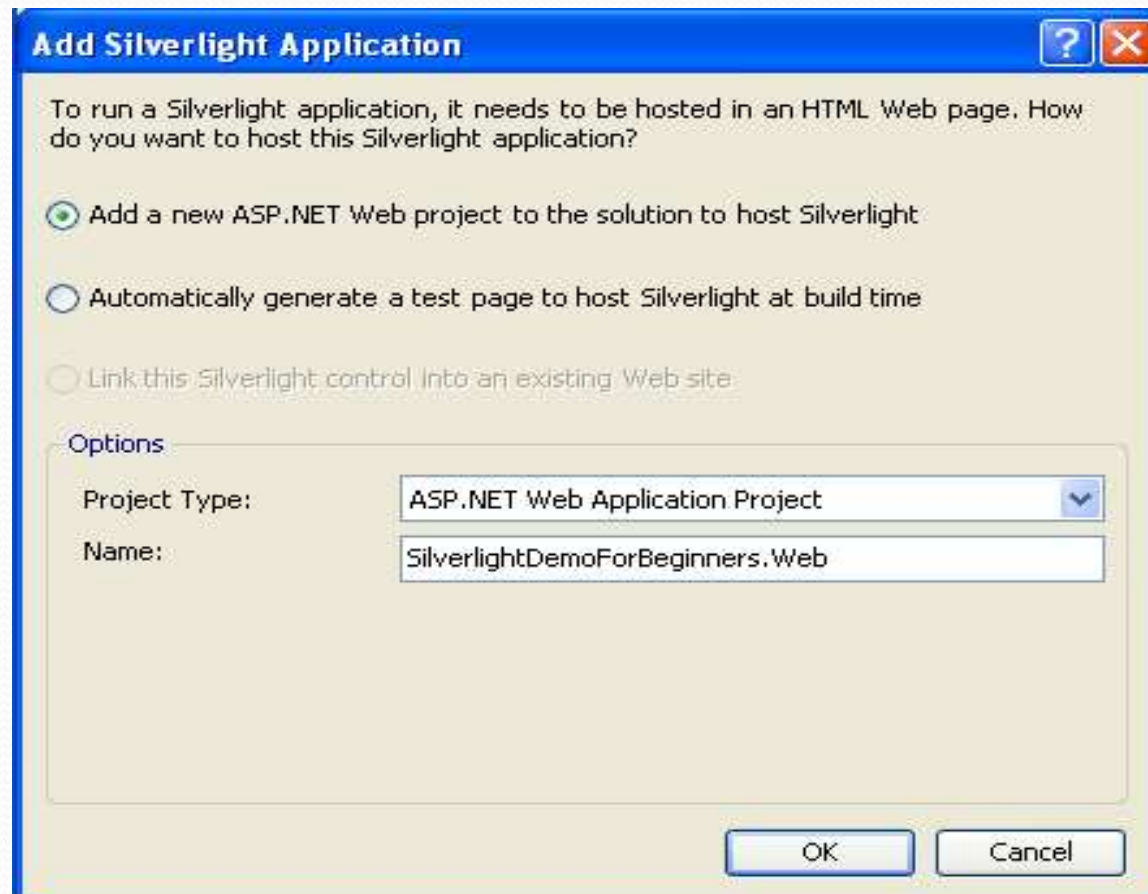
Select Silverlight Template

Framework





# How to Host Silverlight application?



**Add Silverlight Application**

To run a Silverlight application, it needs to be hosted in an HTML Web page. How do you want to host this Silverlight application?

☒ Add a new ASP.NET Web project to the solution to host Silverlight

☐ Automatically generate a test page to host Silverlight at build time

☐ Link this Silverlight control into an existing Web site

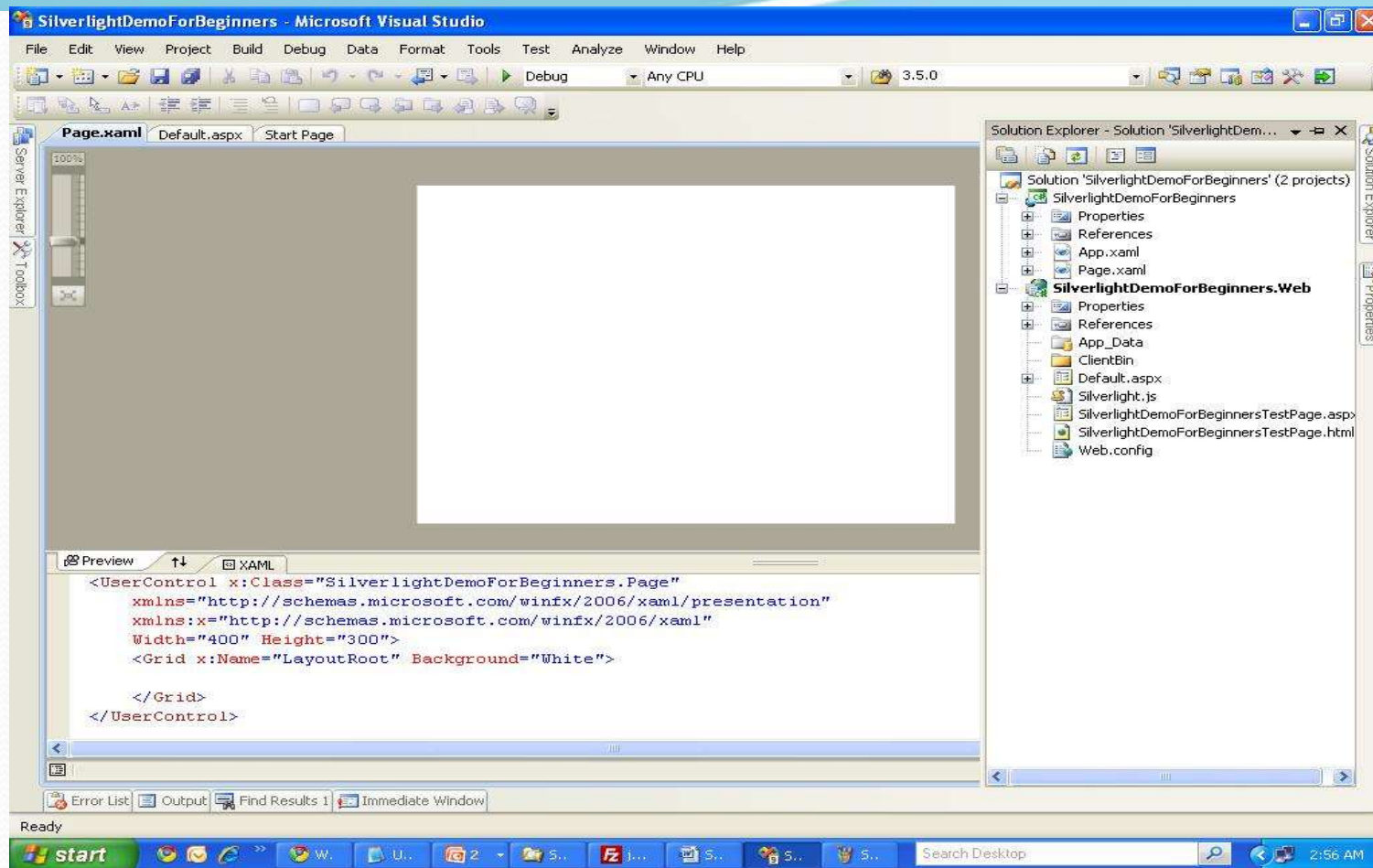
Options

Project Type: ASP.NET Web Application Project

Name: SilverlightDemoForBeginners.Web

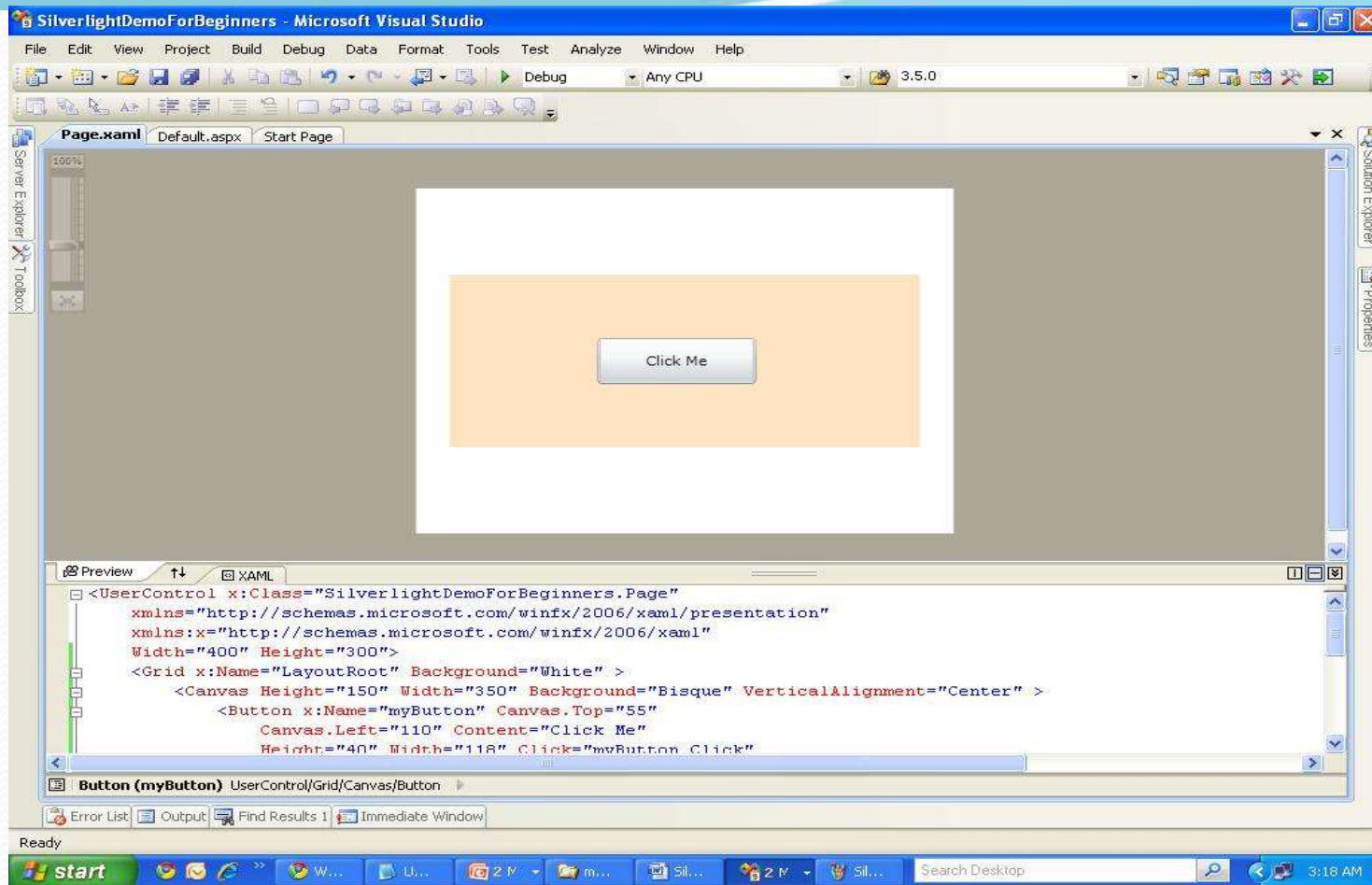
OK Cancel

# Skeleton of Silverlight application?





# Creating a XAML Page



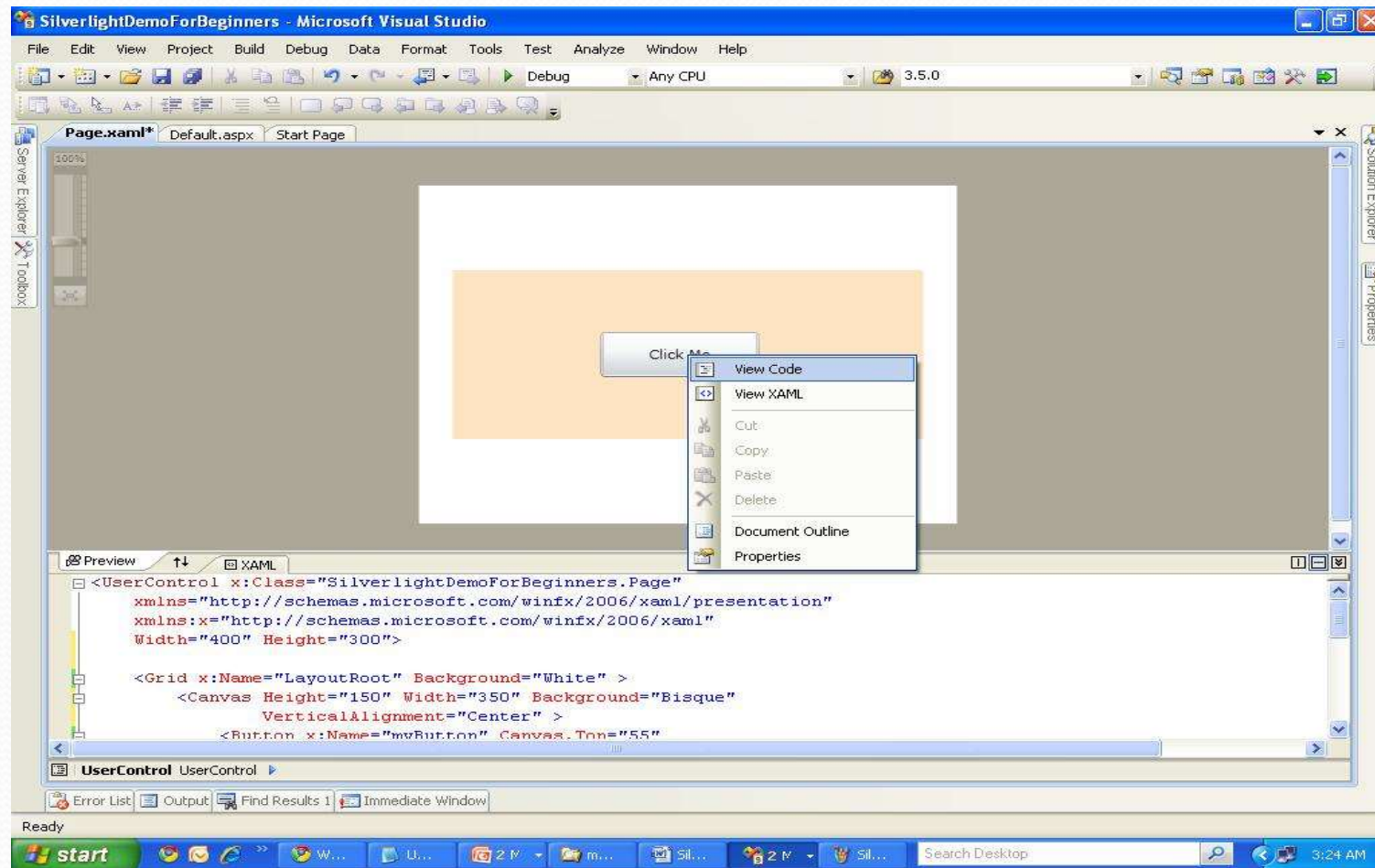
# Creating a XAML Page

```
Page.xaml* | Default.aspx | Start Page |
<UserControl x:Class="SilverlightDemoForBeginners.Page"
  xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  Width="400" Height="300">

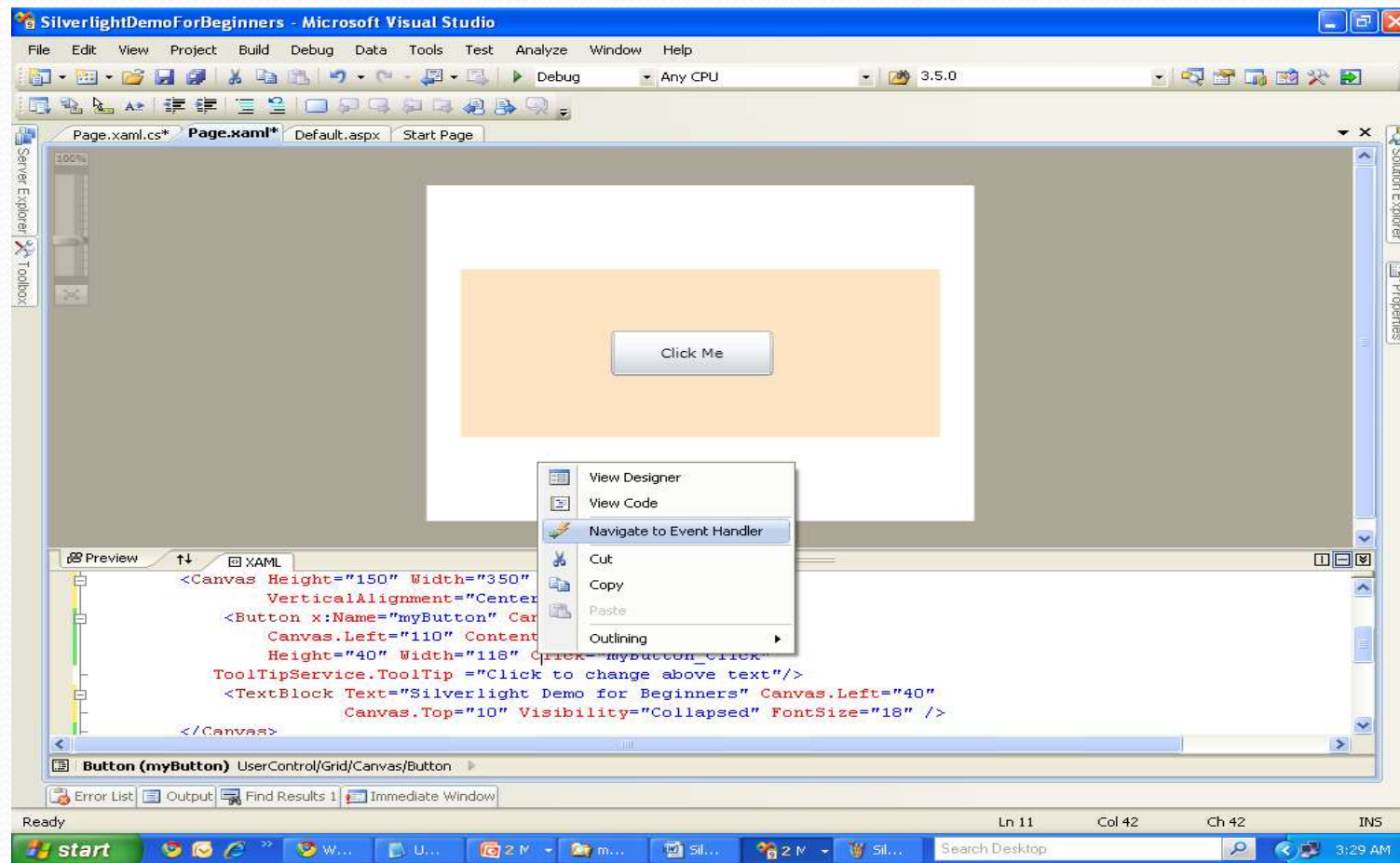
  <Grid x:Name="LayoutRoot" Background="White" >
    <Canvas Height="150" Width="350" Background="Bisque"
      VerticalAlignment="Center" >
      <Button x:Name="myButton" Canvas.Top="55"
        Canvas.Left="110" Content="Click Me"
        Height="40" Width="118" Click="myButton_Click"
        ToolTipService.ToolTip="Click to change above text"/>
      <TextBlock Text="Silverlight Demo for Beginners" Canvas.Left="40"
        Canvas.Top="10" Visibility="Collapsed" FontSize="18" />
    </Canvas>
  </Grid>
</UserControl>
```



# Start writing code

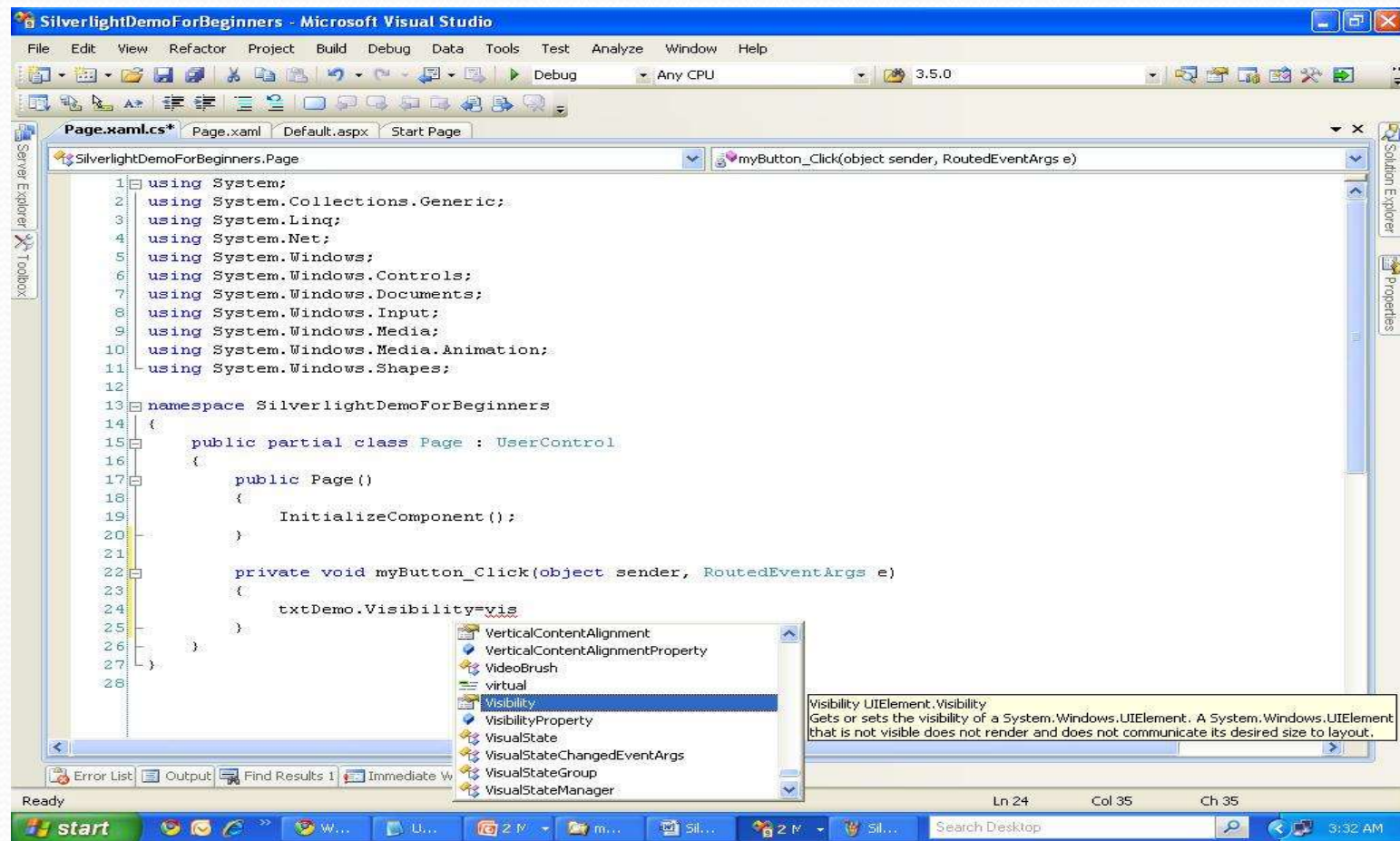


# Navigate to Event handler

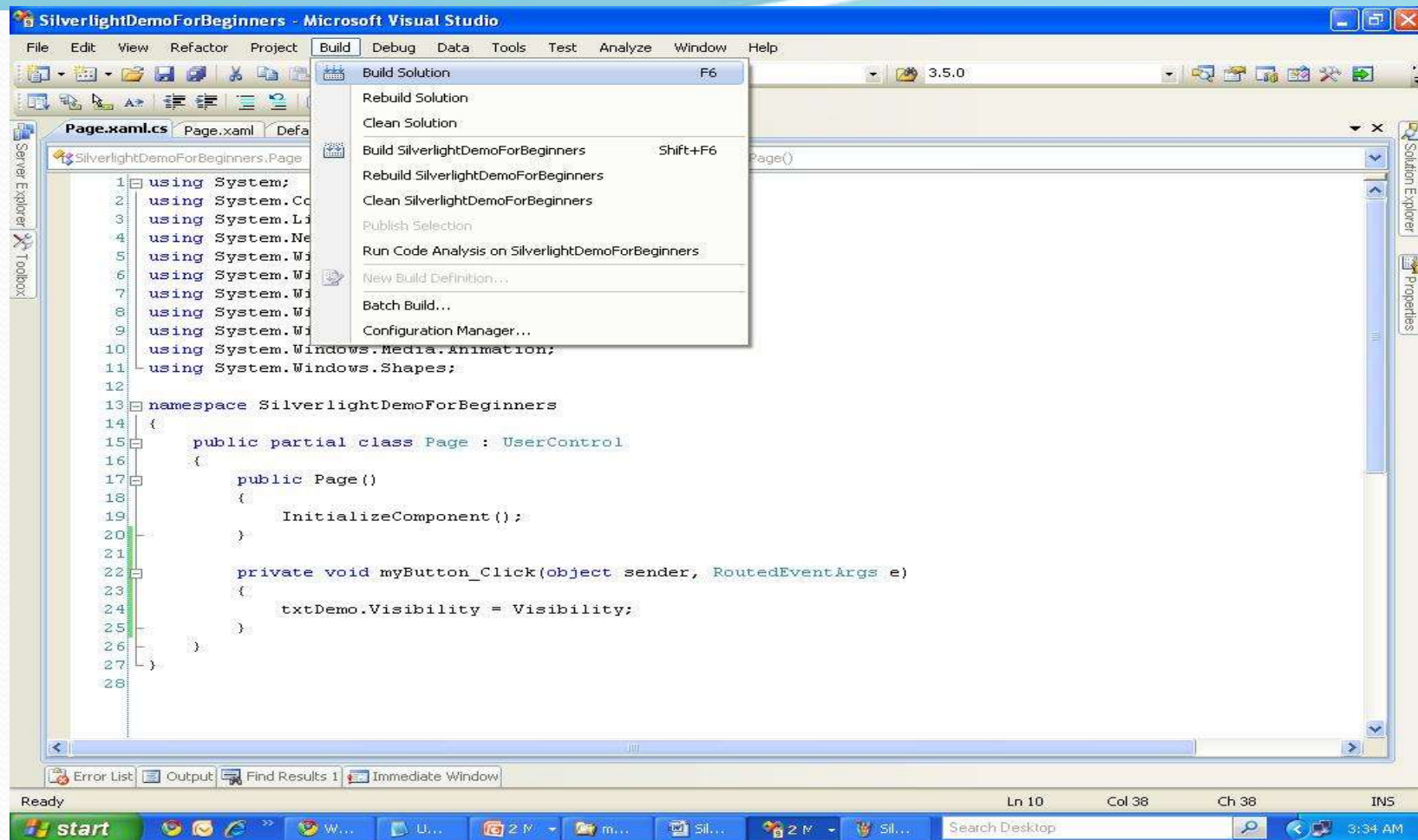




# Writing a code

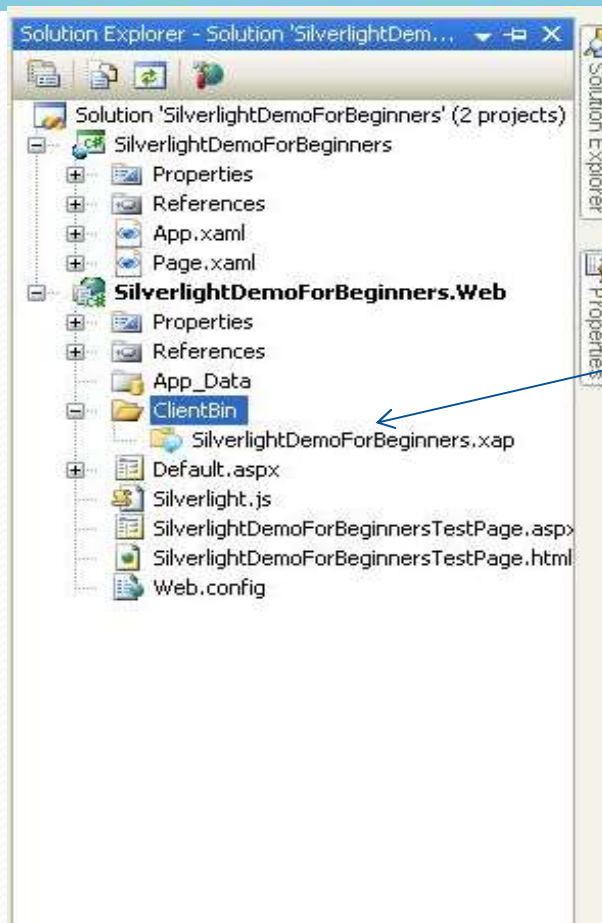


# Building application



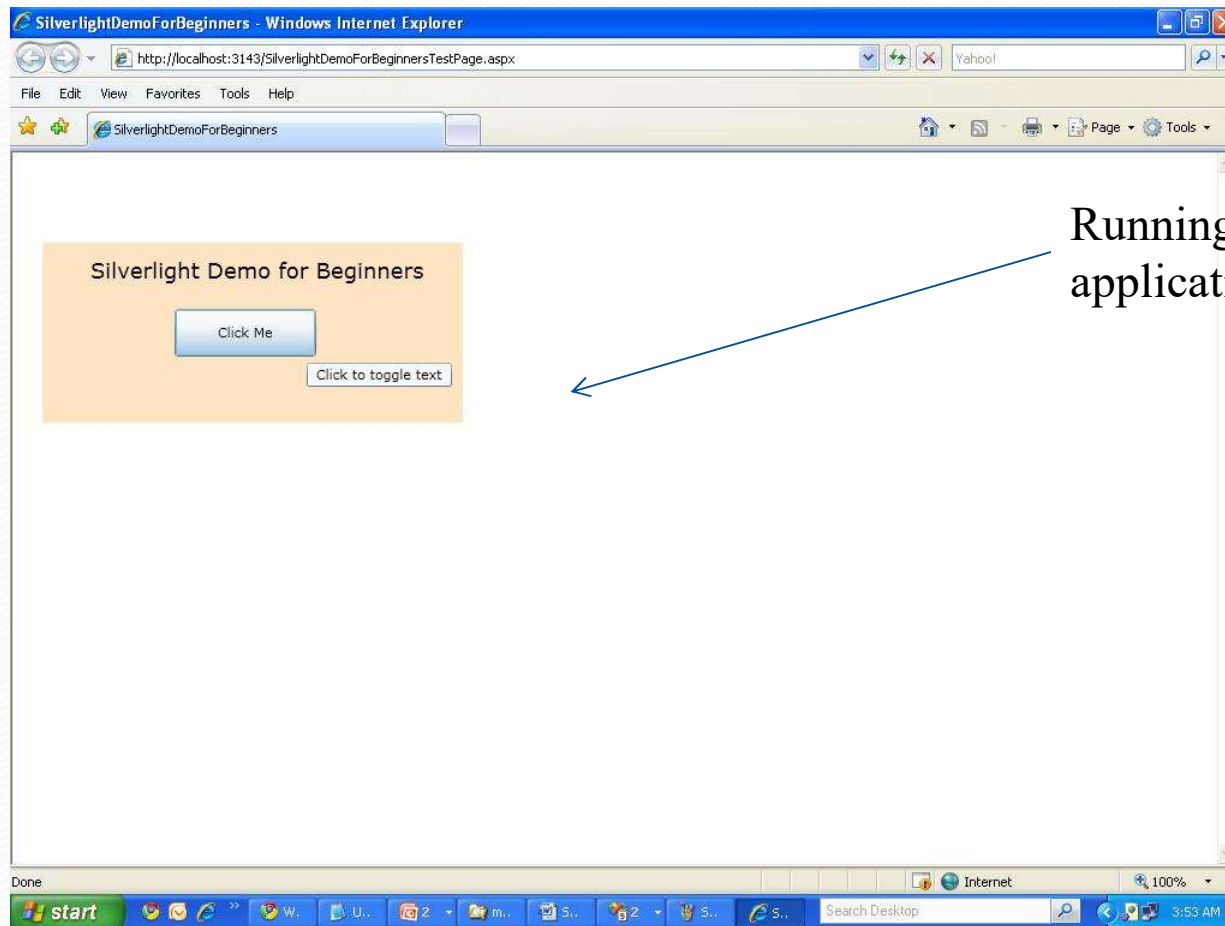


# 'xap' file



After building application,  
check ClientBin, there is a new  
application with 'xap' extension

# Running Silverlight application



Running page host a silverlight application



# Thank you Hyderabad Techies

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