



# ASP .NET

Aleesha Kurian  
S4 MCA

# WHAT IS ASP?

- ASP stands for Active Server Pages. It is also known as classic ASP.
- It is a server side technology provided by Microsoft which is used to create dynamic and user-friendly web pages.
- It uses different scripting languages to create dynamic web pages which can be run on any type of browsers.

# WHAT IS ASP.NET?

- ASP.Net is a specification by Microsoft which is used to create web applications and web services.
- It is a part of .Net framework. You can create ASP.Net applications in most of the .Net compatible languages like Visual Basic, C# etc.
- ASP.Net provides much better performance than scripting languages.

## **ASP.NET v/s ASP**

- ASP is interpreted, while ASP.Net is compiled.
- ASP uses VBScript, therefore when the ASP page is executed, it is interpreted.
- ASP.Net uses .Net languages like C# and VB.NET, which is compiled to Microsoft intermediate language.

# Versions of ASP .NET

ASP.NET Version	Introduced with .NET & IDE
4.5.1	4.5.1 and Visual Studio 2013
4.5	4.5 and Visual Studio 2012
4.0	4.0 and Visual Studio 2010
3.5	3.5 and Visual Studio 2008
2.0	2.0 and Visual Studio 2005
1.1	1.1 and Visual Studio .NET 2003
1.0	1.0 and Visual Studio .NET

# Visual Studio as ASP.NET development tool

- Visual Studio is a development tool, which provides a rich environment where you can rapidly create advanced applications.
- Some of the features of Visual Studio include the following:
  - Page design
  - Automatic error detection
  - Debugging tools



# Features Of ASP.NET

- Windows and its dependence
- Object orientation
- Choice of language

# ASP.NET development models

- ASP.NET supports three different development models:
  - ❖ Web Pages
  - ❖ Web Forms
  - ❖ MVC (Model View Controller)



# Web Pages (Single Pages Model)

- Web Pages is the simplest programming model for developing ASP.NET web pages. It provides an easy way to combine HTML, CSS, JavaScript and server code.
- ✓ Easy to learn, understand, and use
- ✓ Built around single web pages
- ✓ Full HTML, CSS, and JavaScript control

The screenshot shows the Microsoft Visual Studio 2010 interface. The top menu bar includes FILE, EDIT, VIEW, WEBSITE, BUILD, DEBUG, TEAM, SQL, TOOLS, TEST, ARCHITECTURE, ANALYZE, WINDOW, and HELP. The toolbar below the menu contains various icons for file operations and development. The main editor window displays the 'Default.cshtml' file with the following code:

```

<@Layout = "~/SiteLayout.cshtml";
Page.Title = "Home Page";

<section featured {
    <section class="featured">
        <div class="content-wrapper">
            <hgroup class="title">
                <h1>@Page.Title.</h1>
                <h2>Modify this template to jump-start your ASP.NET Web Pages application.</h2>
            </hgroup>
            <p>
                To learn more about ASP.NET Web Pages, visit
                <a href="http://asp.net/webpages" title="ASP.NET Web Pages Website">http://asp.net/webpages</a>.
                The page features <mark>videos, tutorials, and samples</mark> to help you get the most from ASP.NET Web
                If you have any questions about ASP.NET Web Pages, visit
                <a href="http://forums.iis.net/1186.aspx" title="ASP.NET Web Pages Forum">our forums</a>.
            </p>
        </div>
    </section>
    <h3>We suggest the following:</h3>
    <ol class="round">
        <li class="one">
            <h5>Getting Started</h5>
            ASP.NET Web Pages and the new Razor syntax provide a fast, approachable, and lightweight way to combine serv
            to create dynamic web content. Connect to databases, add video, link to social networking sites, and include
            that let you create beautiful sites using the latest web standards.
            <a href="http://go.microsoft.com/fwlink/?LinkId=245139">Learn more.</a>
        </li>
    </ol>
}

```

The left sidebar shows the 'Toolbox' with a search bar and a list of HTML controls: Pointer, Input (Button), Input (Reset), Input (Submit), Input (Text), Input (File), Input (Password), Input (Checkbox), Input (Radio), Input (Hidden), Textarea, Table, Image, Select, Horizontal Rule, and Div. A note at the bottom of the toolbox states: 'There are no usable controls in this group. Drag an item onto this text to add it to the toolbox.'

The right sidebar shows the 'Solution Explorer' with a project named 'WebSite2'. The file list includes: Account, App\_Data, bin, Content, Images, Scripts, AppStart.cshtml, SiteLayout.cshtml, About.cshtml, Contact.cshtml, Default.cshtml, favicon.ico, and packages.config. The 'Properties' pane shows the 'Default.cshtml' file with the following properties:

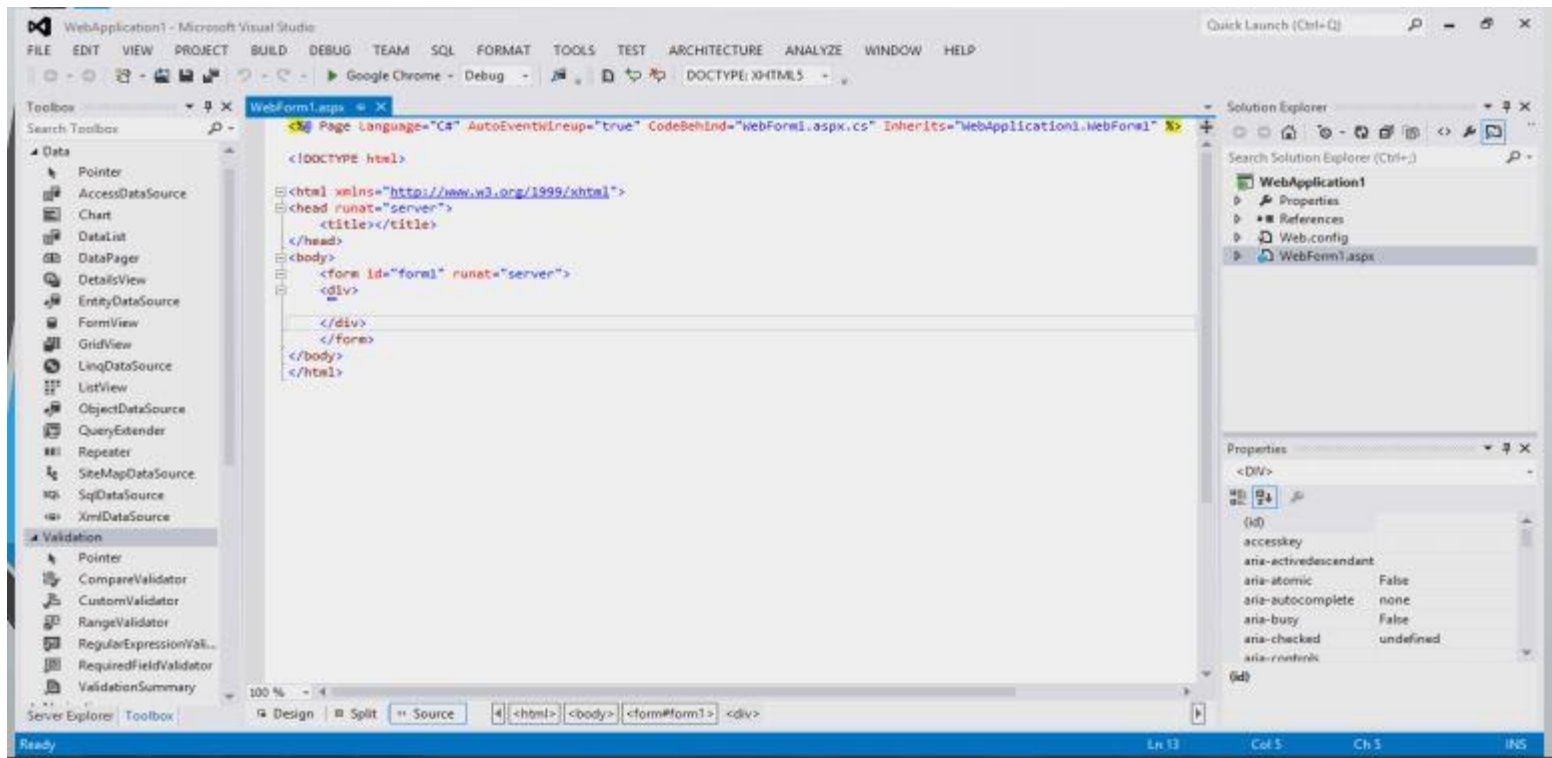
File Name	Default.cshtml
Full Path	C:\Users\Rajkumar Soy\IDo

The bottom status bar indicates 'Ready'.

## **Web Forms (Event Driven Model)**

- Web Forms is the oldest ASP.NET programming model, with event driven web pages written as a combination of HTML, server controls, and server code.
- Web Forms are compiled and executed on the server, which generates the HTML that displays the web pages.
- Web Forms comes with hundreds of different web controls and web components to build user-driven web sites with data access.

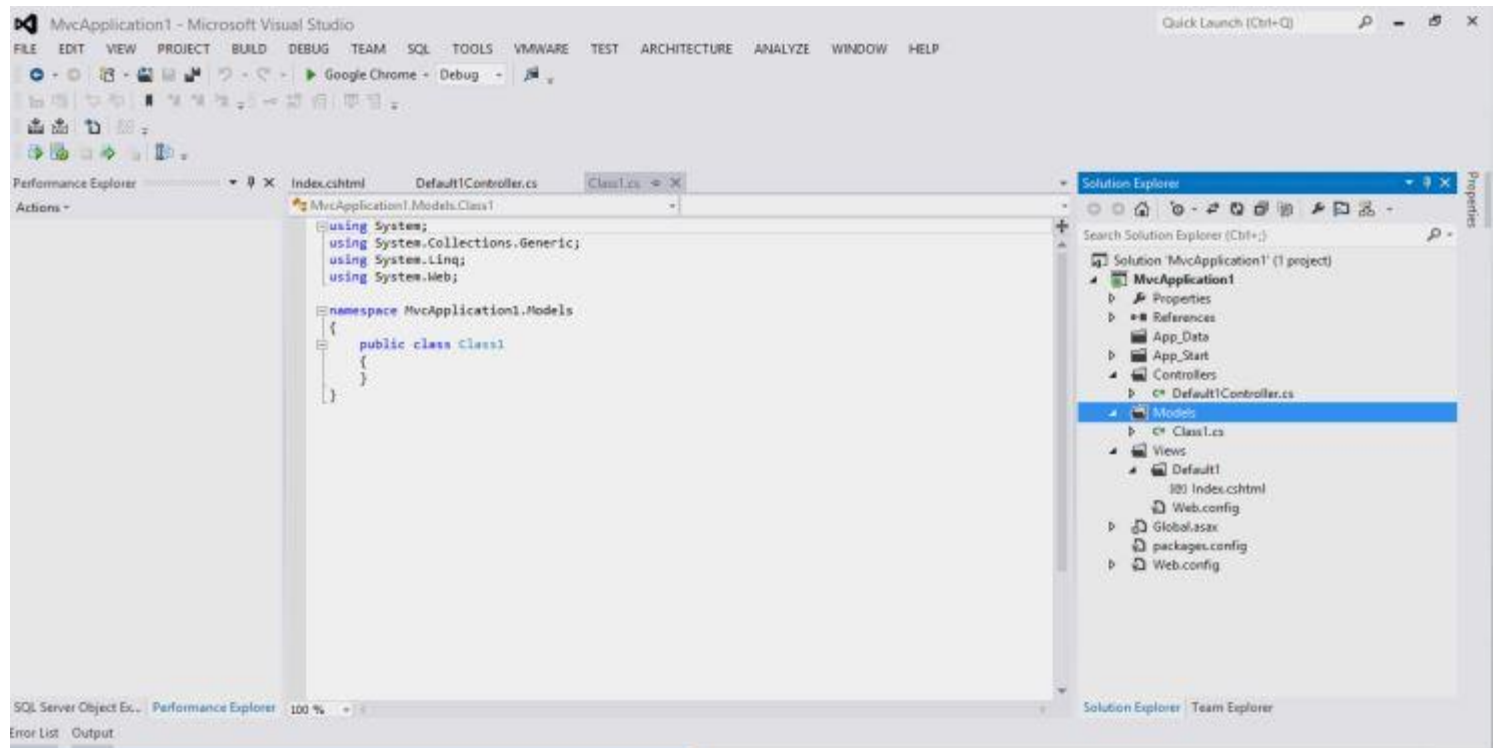
# Web Form in Visual Studio



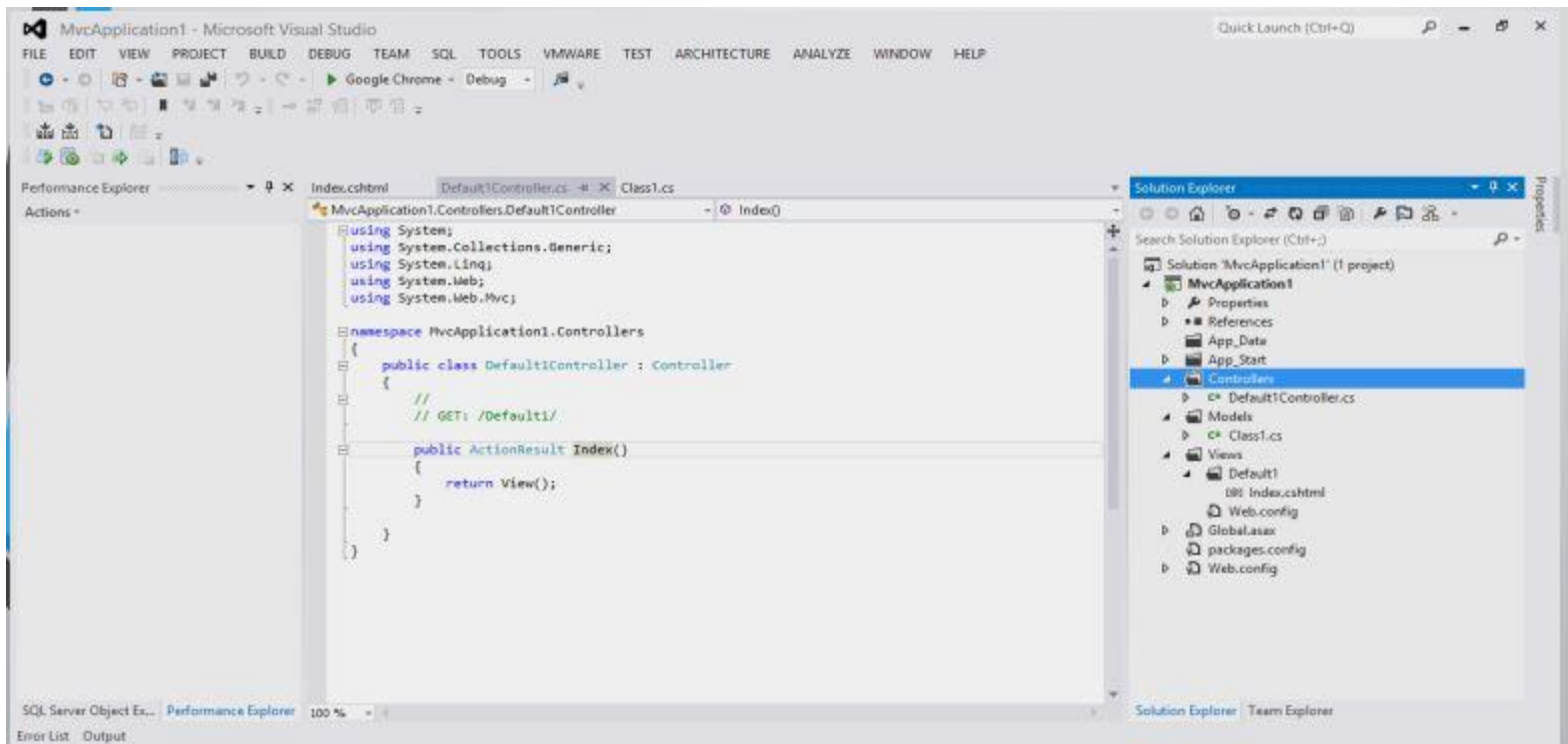
# MVC (Model View Controller)

- MVC is a framework for building web applications using a MVC (Model View Controller) design:
- The Model represents the application core
- The View displays the data
- The Controller handles the input The MVC model also provides full control over HTML, CSS, and JavaScript.

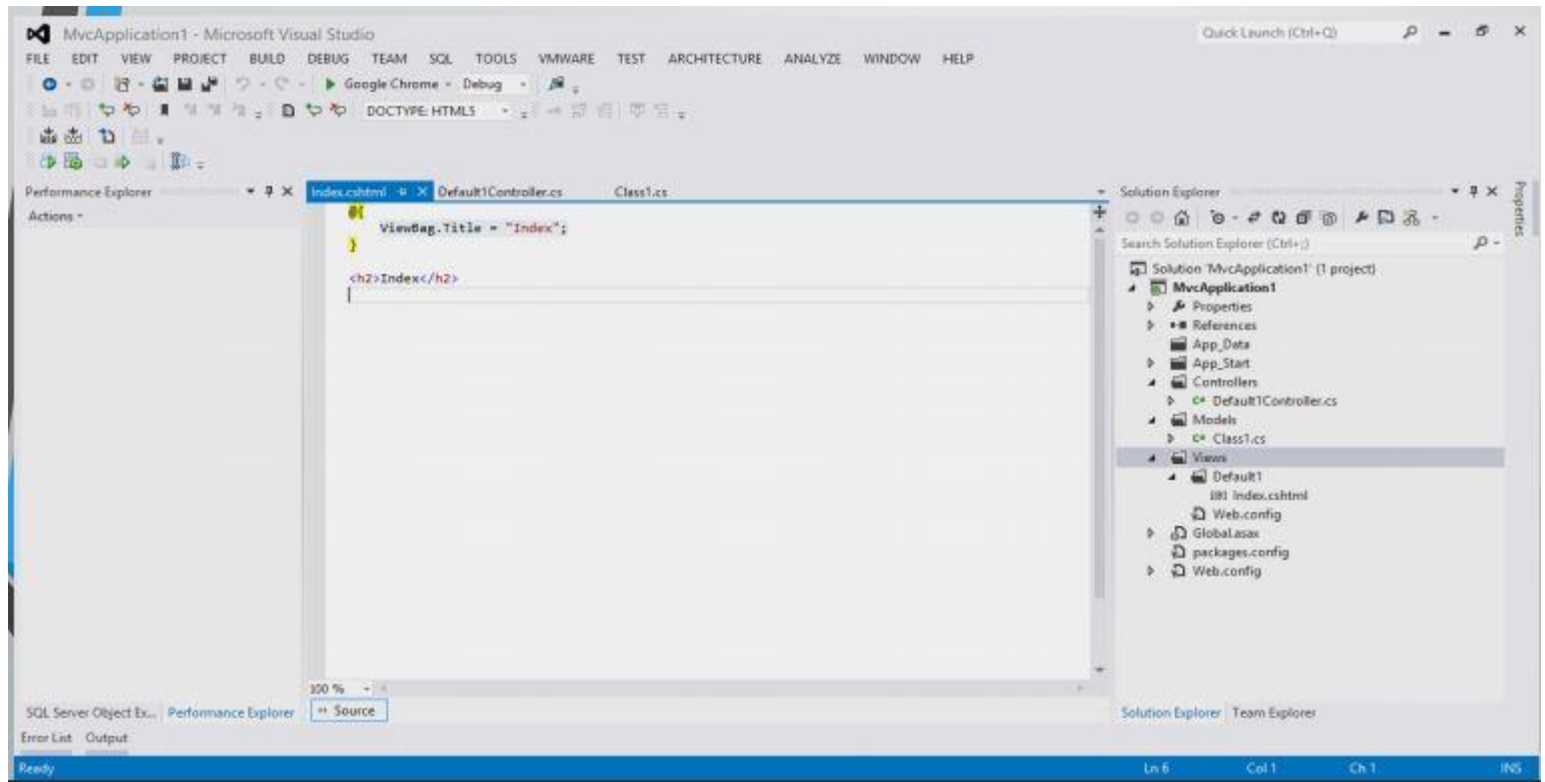
# MVC Model



# MVC Controller



# MVC View





# WEB Server Controls

1. Label
2. Text Box
3. Button
4. Check Box
5. Radio Button
6. Image

# Validation controls

- Required field validator
- Compare validator
- Range validator
- Regular Expression validator
- Custom validator
- Validation summary



# Advantages

- Object Oriented
- Caching
- Easy Maintenance
- Time-Saving
- Simplicity
- Feature-Rich
- Monitoring

# Disadvantages

- Limited Object Relational (OR) support
- Slower than Native Code
- Vendor lock-in
- Expensive

## Conclusion

- ASP.net is a new technology and powerful web development language to build a web application much faster.