

Web Apps and Internet Information Services (IIS)

Web Server Deployment

Contents

- Introduction to Web Apps
 - HTML Example
- Introduction to ASP.NET
 - ASP.NET Example
- Introduction to Web Servers
- Internet Information Services (IIS)
 - Deploy a HTML Web Site to IIS
 - Deploy an ASP.NET Web App to IIS

Web Platforms



PCs with Web Browsers



Web Apps

Web Browsers Officer Explorer Microsoft Edge



Firefox



Chrome

Opera



Safari

HTML

- HyperText Markup Language (HTML)
- The Visual Appearance of a Web Site
- "Web Browser Language": All Web Browser understand HTML
- HTML 5 is the latest
- Maintained by W3C

 World Wide Web
 Consortium

```
<!DOCTYPE html>
<html>
<body>
```

<h1>My First Heading</h1>

My first paragraph.

</body>
</html>

WYSIWYG HTML Editors

- Adobe Dreamweaver (Monthly Payment)
- Kompozer (Free)
- Bluegriffon (Free)

WYSIWYG – What You See Is What You Get You dont need to know HTML syntax - Its just like using MS Word.

• Sparkle (\$80), etc...

Other HTML Editors (not WYSIWYG)

- Visual Studio (ASP.NET)
- CoffeeCup (\$69, Free Trial)
- Coda (\$99)

Only possible to change the HTML source code and then select "Preview" in order to see how it looks like in a Web Browser. You need to know HTML syntax



Use **CSS** to specify the layout of web pages

Use **JavaScript** to program the behavior of web pages





Client-Server Example



Internet Information Services (IIS), Apache, etc.

Web Platform

The Web Browser creates the visual web page you see in the browser based on



Internet Information Services (IIS), Apache, etc.





Example HTML Web Page







In this Example we will create a simple HTML page using Notepad only



ASP.NET Web Apps

ASP.NET

ASP.NET is used to create dynamic web pages



ASP.NET – Different ways of creating Web Sites with ASP.NET



You can use (at least) 3 different approaches when creating Web Sites with ASP.NET

http://www.asp.net



- Singe Page Model (The server-side code is mixed in between the HTML)
- Uses the Razor syntax (.cshtml files)
- Similiar as Classic ASP and PHP
- A tool called Microsoft WebMatrix is optimized for this development model, but you can also use Visual Studio if you want to.

ASP.NET Web Forms

- Similar to the desktop development model used in WPF
- GUI (*.aspx files) and Code (*.aspx.cs) separated in diff. Files
- For those who are familiar with WinForms, .NET, WPF, etc.



- MVC Model View Controller
- A new development model where you split your development into 3 parts/components: Models for Data, Views for Display and Controllers for Input. For "Advanced" Developers

ASP.NET Web Forms

Create a New Project in Visual Studio

		New Project		? ×
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Silverlight Silverlight Test WCF Workflow TypeScript D Other Language Other Project Ty Modeling Proje Samples	es ypes ects			Select a template:
▶ Online		Click here to go online and find templates.		Add folders and core references for: Change Authentication Web Forms MVC Web API Authentication:
Name:	DatabaseWebAp	P		Add unit tests
Location:	C:\Temp\Visual	Studio Projects\ +	Browse	Test project name: DatabaseWebApp.Tests
Solution name:	DatabaseWebAp	p	Create directory for Add to source cont	nt Contraction of the second sec
				ОК



Example ASP.NET Web Form App

ASP.NET Web Form Example

When you are finished, your Web App should look something like this:

← → ▲ http://localhost:49539/WebForm1.aspx P ▼ C ▲ localhost	×
This is my first ASP.NET Web Forms App	
Enter your Name:	
Hans-Petter Halvorsen OK	
Hello, Hans-Petter Halvorsen	

When you enter your Name in the TextBox and click the OK Button, the program should respond with a greetings.





Lets create this Example with Visual Studio



Web Server

Web Server Platforms Microsoft PHP NGINX 5 (pronounced "engine x") Internet Information Services Apache - Has become very popular lately ASP.NET

Cross-platform: UNIX, Linux, OS X, Windows, ...

The term web server can refer to either the hardware (the computer) or the software (the computer application) that helps to deliver web content that can be accessed through the Internet.

The most common use of web servers is to host websites, but there are other uses such as gaming, data storage or running enterprise applications.

Web Server Popularity



http://news.netcraft.com/archives/2015/09/16/september-2015-web-server-survey.html





Internet Information Services (IIS)

Internet Information Services (IIS)

https://en.wikipedia.org/wiki/Internet_Information_Services

- Web Server from Microsoft
- Integrated with Windows



🛐 Internet Information Services (IIS) Manager – 🗖 🌅
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File View Help
Connections Actions Actions
2 /Calculator WS Home Dia Explore
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Configurat Editor
La reatures view Content view

Internet Information Services (IIS)

- IIS Internet Information Services
- Web Server that host the Web Pages/Web Site
- Make sure to have the IIS Role installed with ASP.NET sub components

¥3	Internet Information Services (IIS) Manager	- 🗆 🗙	
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Ready		Sec. 1	

Installation/ Configuration

Search for «Windows Features» or open the Control Panel



Image: Windows Features − □ × Turn Windows features on or off Image: Comparison of the seatures on or off Image: Comparison of the seatures on or off

To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.



Internet Information Services (IIS) Manager

Internet Information Services (IIS) Manager	×
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> Features View Content View	

Ready

Deploy/Publish Web Service to **IIS**

Copy Web Service Files (Project) to default IIS Directory: C:\inetpub\wwwroot





Example Deploy HTML Web Site to IIS





IIS Deployment



?



Your Development PC







Example

Deploy ASP.NET Web App to IIS

Create Web App in Visual Studio

New Project			? ×	
▶ Recent	.NET Framework 4.6.1 - Sort by: Default	- 📰 📃 Search Installed	Templates (Ct 👂 -	
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▷ Online	Click here to go online and find templates.	You can always co	-5	
Name: MyWebApp Location: C:\Temp\Web\ Solution name: MyWebApp	•	Browse	Get ASP.NET 5 RC	Change Authentication Authentication: No Authentication
<u>,</u>		Add to source control	Add folders and core references for:	Microsoft Azure
		ОК	V Web Forms MVC Web API	Host in the cloud
			Add unit tests Test project name: MyWebApp.Tests	Web Арр `

Create Web App in Visual Studio



Create and Test Web App in Visual Studio

MyWebApp - Microsoft Visual S	MyWebApp - Microsoft Visual Studio P 🛛 Cuick Launch (Ctrl+Q) P = 🗆 🗙							
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🗊 Localize								
Panel		This is not such and						
PlaceHolder		This is my web app.						
RadioButton								
RadioButtonList								
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*s Wizard →	Gesign Split Source							
Ready								

Internet Information Services (IIS) Manager



Then Test your Web App

4

Rename your WebForm or Add New Default Document

Test It



Not Working?

- Install correct .NET Framework in the Virtual Machine
- Make sure the IIS User has access ("owner" or "read/write") to the SQL Server Database

My Web App

This is my web app.

2





Example

Deploy ASP.NET Web Apps with Visual Studio

Alternatives: Deployment/Publish

- Create a "Installation Package" that you or the Customer need to install on the server (Web Deploy Package)
- Deploy directly to the server using "Web Deploy" (You need to have online access to the server)
- Deploy directly to the server using "FTP" (You need to have online access to the server)
- File System

Publish method:	Web Deploy Package 🔹
	Web Deploy
	Web Deploy Package
	FTP
Dackage location	File System
Package location.	C, remp/bookszip



Deployment Alternative #1 File System Deployment



Internet Information Services (IIS) Manager



Rename your WebForm or Add New Default Document



Then Test your Web App

Test It!







Deployment Alternative #2 Web Package Deployment

Web Package Deployment



Publish method:	Web Deploy Package 🔹
	Web Deploy
	Web Deploy Package
	FTP
Package location:	File System
Fackage location.	C./ Temp/Booksizip

If you miss the "Deploy" option, make sure to install the "Web Deploy" features. You may download and install it from WebPI (Web Platform Installer) (Google it and download it)

0	Web Platform Installer 4.6				
Searce	Search results for Web Deploy				×
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	Visual Studio Express 2012 for Web (Latest)	20	12-10-22	Add	
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	Visual Studio Express 2012 for Web with Windows Azure SDK - 2.2	20	13-10-17	Add	
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naur 24	MonoX	20	14-02-20	Add	_
0 Items to	be installed	<u>Options</u>	Install	Exit	

Create Web Package Wizard

Publish Web			?	×
Publish Web				
Profile	Deploy to IIS *			
Connection Settings	Publish method:	Web Deploy Package	~	
Preview	Package location:	C:\Temp\MyWebApp.zip		
	Site name:	Default Web Site/MyWebApp		
		< Prev Next > Publish	Close	

Create Web Package Wizard

If your Web App uses a Database connection in Web.config, you may setup the Connection String on the Server here.

ſ	Publish Web		? ×
	Publish Web		
	Profile Connection Settings Preview	Books Configuration: Release Similar File Publish Options Databases Contraction String	•
nay fill in ring to t	n the Connection the Database	 Use this connection string at runtime (update destination web.config) Update database <u>Configure database updates</u> 	
		< Prev Next > Publish	Close

You m

St

Preparation

You may need to install the "Web Deploy" software on the Server

Servers"

Download WebPI (Web Platform Installer) and then select to Install "Web Deploy for Hosting

Web Platform Installer 5.0 \times C Search results for web deploy Q Name Released Install **(**) Web Deploy 3.5 without bundled SQL support (latest) 11.06.2013 Installed 6 Add Web Deployment Tool 2.1 11.04.2011 6 Web Deploy 3.5 11.06.2013 Installed 6. Web Deploy 3.5 for Hosting Servers 11.06.2013 Add **6** Web Deploy 3.6 without bundled SQL support (latest) 08.07.2015 Installed Web Deploy 3.6 for Hosting Servers 08.07.2015 Add 6 Web Deploy 3.6 08.07.2015 Installed 1865 Microsoft Drivers 3.2 for PHP v5.5 for SQL Server in IIS Express 11.03.2015 Add Shem 💕 MOD_x CMS 07.06.2010 Add ଟ Application Insights Status Monitor Preview 18.11.2015 Add **D** Visual Studio Community 2015 with Microsoft Azure SDK - 2.8.2.1 16.02.2016 Add v Items to be installed 0 Options Install Exit

Import Package in IIS

8]			Internet Information Services (IIS) Manager							
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File View Help										
Connections	CZC2462W82\Administrator Pools Explore Edit Permissions Add Application Add Virtual Directory Edit Bindings	Filter:	Default Web	Site Ho	Me Show All (.NET Globalization	Group by: Ard	ea .NET Roles	• III • NET Trust Levels	.NET Users	Applicati Setting:
	Manage Website Refresh Remove Add FTP Publishing Install Application From Ga Deploy Rename Switch to Content View	allery	Configure W Configure W Configure V Seport Appli	pression Default Document Infigure Web Deploy I stall Application port Application	Directory Browsing Publishing Gallery	Error Pages	Handler Mappings	HTTP Respon	ISAPI Filters	Loggin
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Import Package in IIS

Make sure you have copied the Installation Package to the Server

Import Application Package	? X									
Select the Package										
Specify the location of the package (for example, C:\WebApplication.zip). Package path:										
D:\Temp\Books.zip	Browse									
Previous Next Finish	Cancel									

Web Package Deployment



Test It





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