

# ASP.NET Application Deployment in IIS

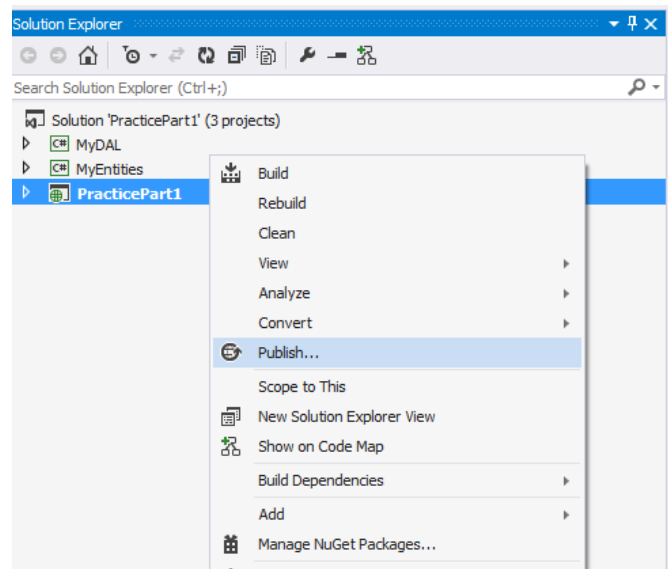
This guide will explain the deployment of asp.net applications in IIS web server. This guide is prepared on **Windows 7** using **Visual Studio 2013**.

Version	Last updated	Comments	Modified By
V1.0	28-08-2015		Bilal Shahzad

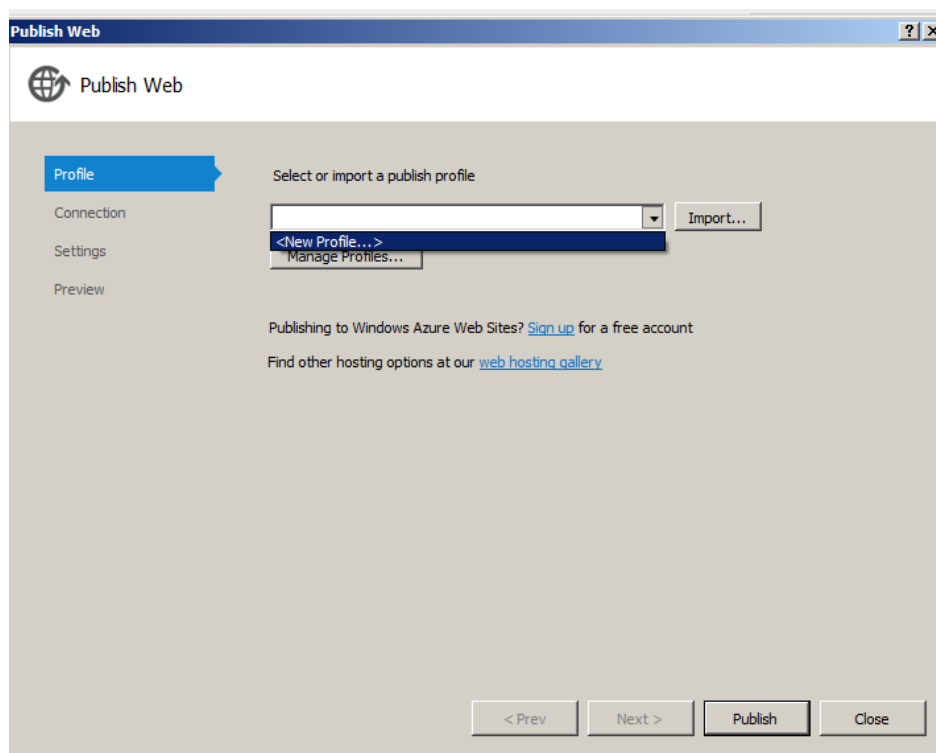
There are different options available for preparing a build and then deploying that to a web server. We would be seeing a very simple approach here with some possible exceptions.

## Prepare Build

- 1- Right click on your web project and choose option “publish”.



- 2- Choose “<New Profile>” option. Give it a name and press “OK”. **Note:** Next time you may choose same profile.

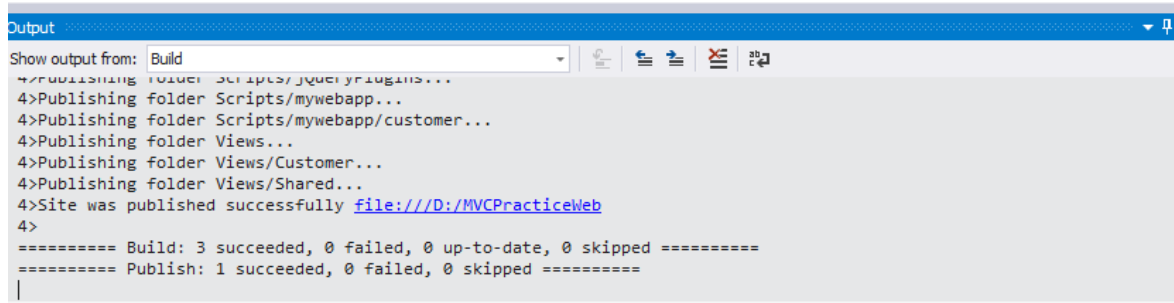


- 3- In next window, choose “File System” and provide location where published content will be placed. Click “Next”, then “Next” and then “Publish”.

The screenshot shows the 'Publish Web' dialog box with the 'Connection' tab selected. The 'MyProfile \*' section contains a 'Publish method' dropdown menu set to 'File System' and a 'Target location' text box containing 'D:\MVCPracticeWeb'. The 'Target location' text box has a browse button ('...') to its right. At the bottom, there are four buttons: '< Prev', 'Next >', 'Publish', and 'Close'.

The screenshot shows the 'Publish Web' dialog box with the 'Preview' tab selected. The 'MyProfile \*' dropdown menu is visible at the top. Below it, the text 'Your application will be published to:' is followed by 'D:\MVCPracticeWeb'. A section titled 'Databases' contains an information icon and the text 'Database preview is not supported for this publish method.' At the bottom, there are four buttons: '< Prev', 'Next >', 'Publish', and 'Close'.

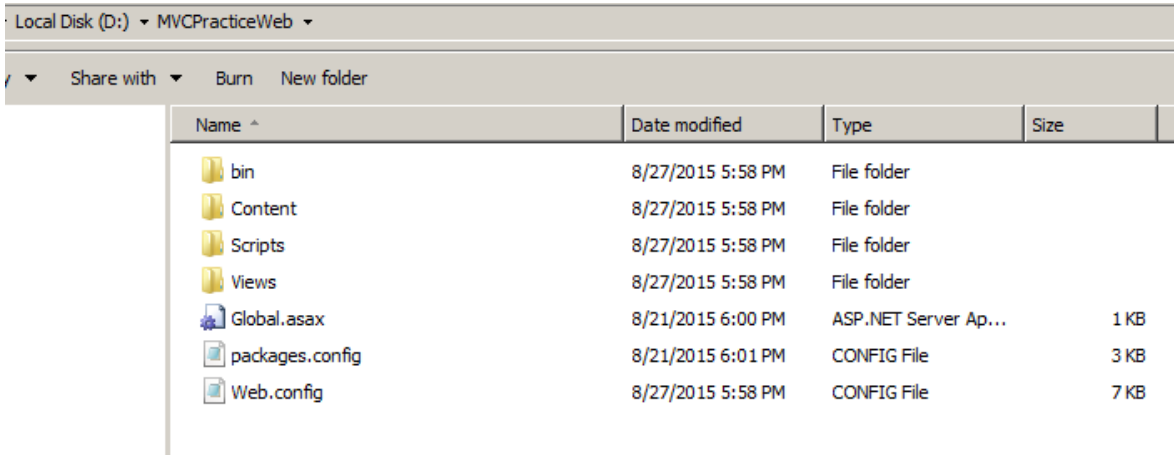
- 4- After some processing, you will see this output in “Output” window.



The screenshot shows the 'Output' window in Visual Studio. The 'Show output from:' dropdown is set to 'Build'. The output text shows the following sequence of events:

```
4>Publishing folder Scripts/jquery/plugins...
4>Publishing folder Scripts/mywebapp...
4>Publishing folder Scripts/mywebapp/customer...
4>Publishing folder Views...
4>Publishing folder Views/Customer...
4>Publishing folder Views/Shared...
4>Site was published successfully file:///D:/MVCPracticeWeb
4>
===== Build: 3 succeeded, 0 failed, 0 up-to-date, 0 skipped =====
===== Publish: 1 succeeded, 0 failed, 0 skipped =====
```

- 5- You may also check the published content by going the target folder.



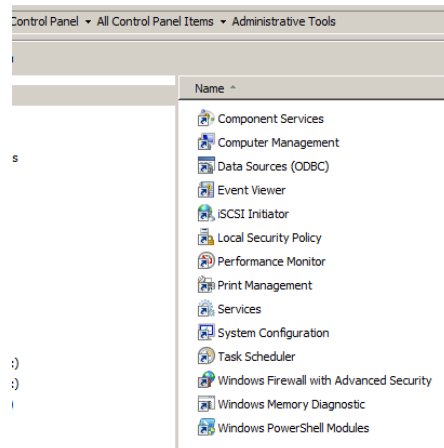
The screenshot shows a Windows File Explorer window titled 'Local Disk (D:) > MVCPracticeWeb'. The address bar shows the path 'D:\MVCPracticeWeb'. The 'Name' column is sorted alphabetically. The contents of the folder are as follows:

Name	Date modified	Type	Size
bin	8/27/2015 5:58 PM	File folder	
Content	8/27/2015 5:58 PM	File folder	
Scripts	8/27/2015 5:58 PM	File folder	
Views	8/27/2015 5:58 PM	File folder	
Global.asax	8/21/2015 6:00 PM	ASP.NET Server Ap...	1 KB
packages.config	8/21/2015 6:01 PM	CONFIG File	3 KB
Web.config	8/27/2015 5:58 PM	CONFIG File	7 KB

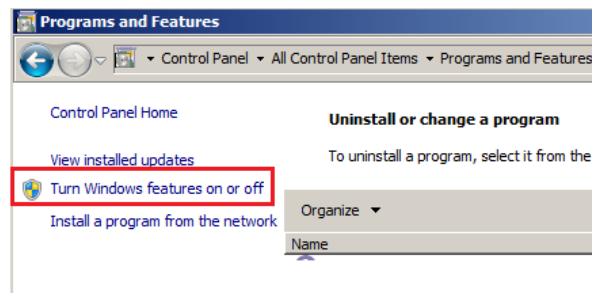
## Installation of IIS

Normally your web servers would be ready with all installations but if you are doing it first time on your machine, you will have to install IIS if it is not already installed.

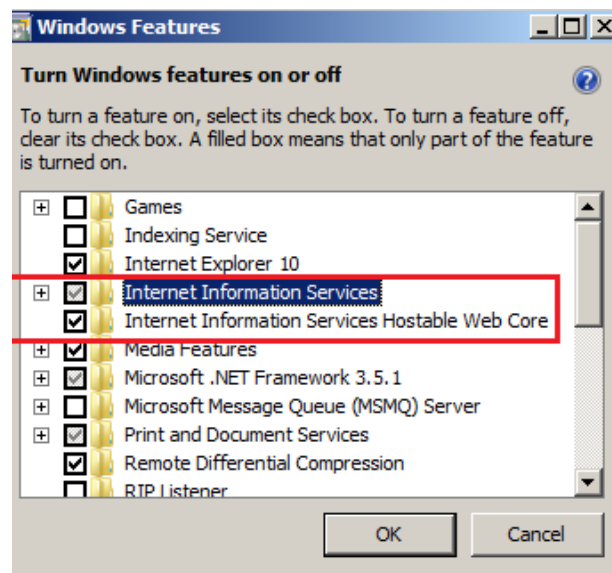
- 1- To check if IIS is installed or not. Go to Control Panel -> Administrative Tools. Here we can't see "**Internet Information Services (IIS) Manager**" which means IIS is not installed.



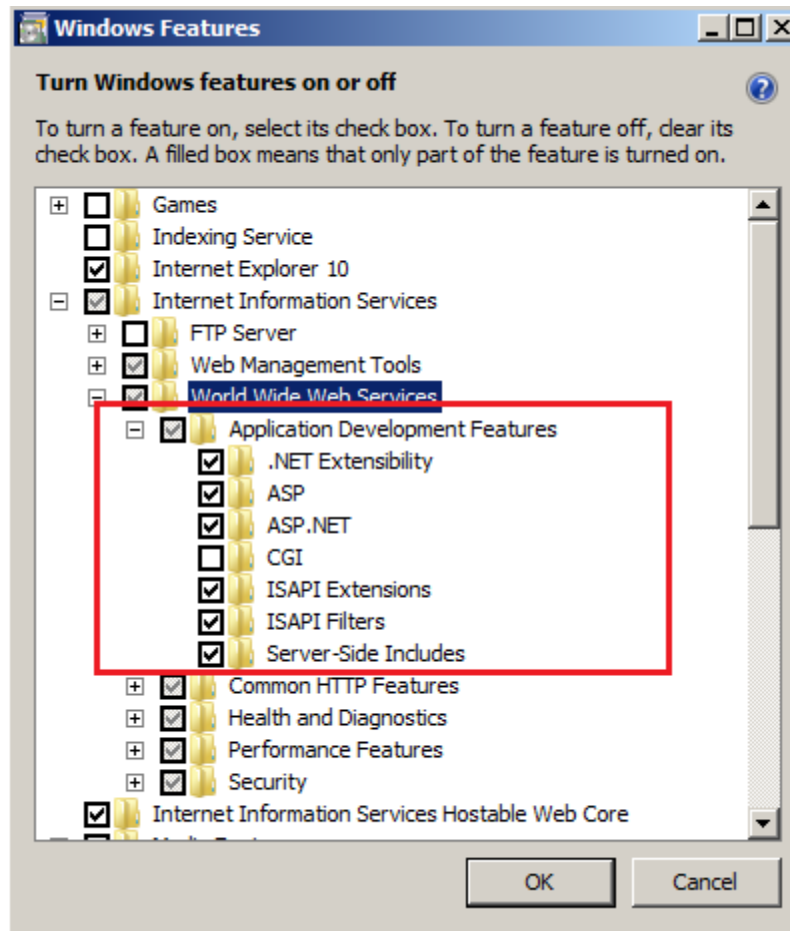
- 2- To install IIS, Go to Control Panel -> "Programs and Features" -> "Turn Windows Features On or Off"



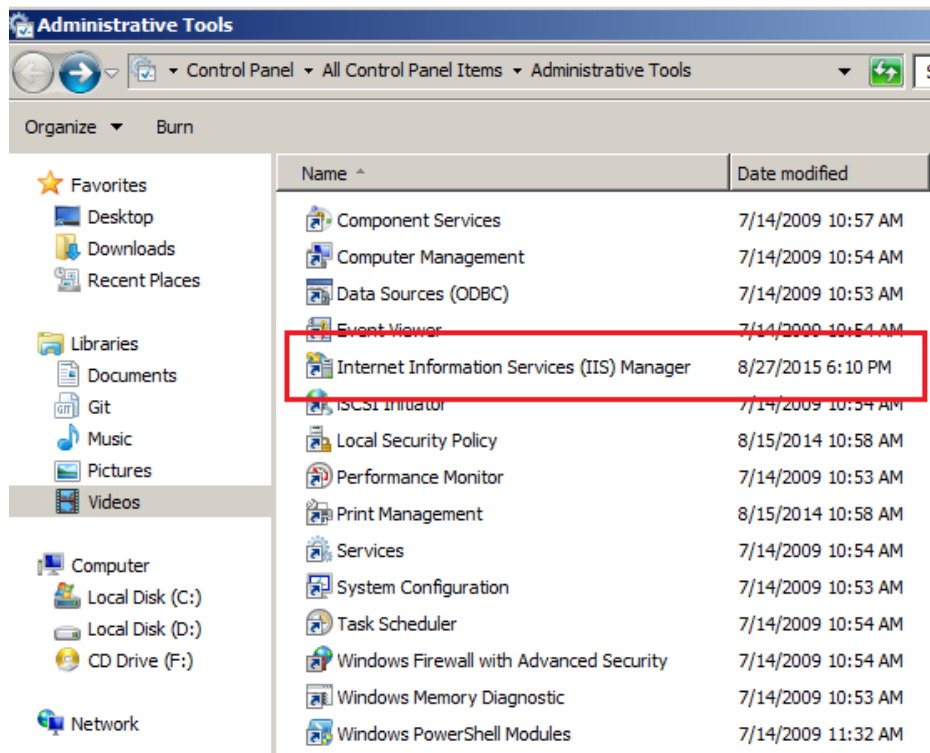
- 3- "Turn Windows Features On or off" will open following dialog box. Check these both options and "OK".



- 4- Also make sure that you have also selected items highlighted in following screenshot



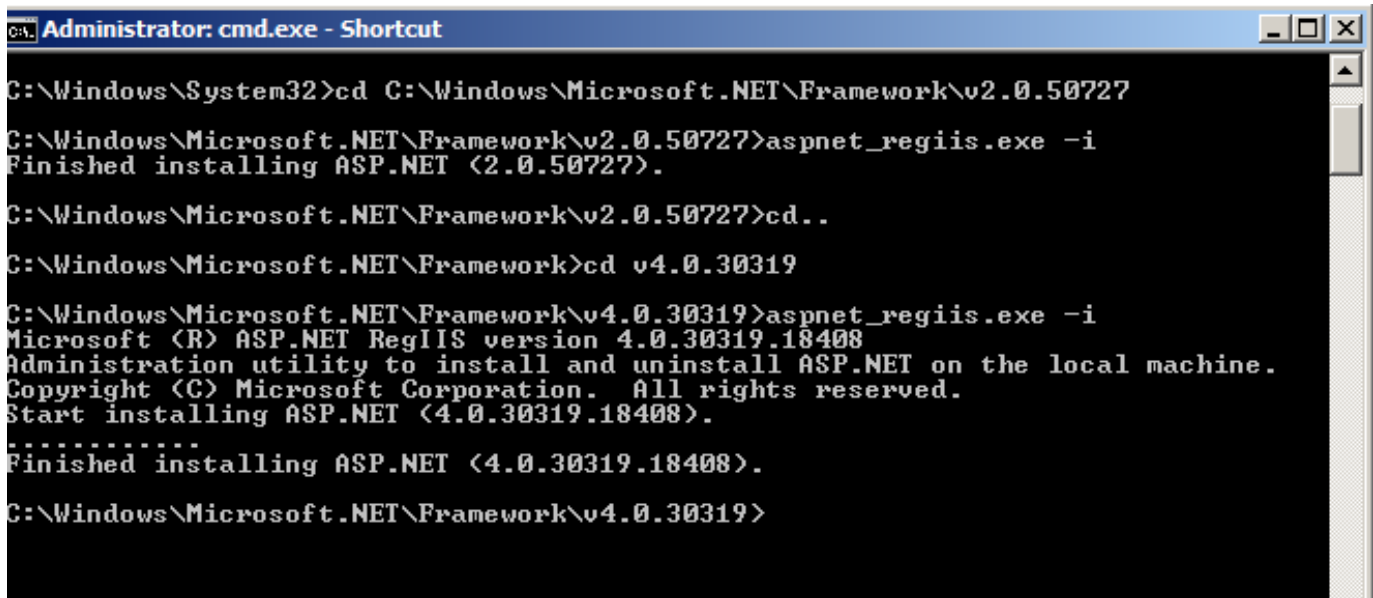
- 5- It may take some time for installation. Once installation is completed you may see “**Internet Information Services (IIS) Manager**” in Administrative tools.



## Registration of ASP.NET with .Net Frameworks

If .Net Frameworks (or Visual Studio) have been installed before installation of IIS (or ASP.NET), we'll have to register ASP.NET manually

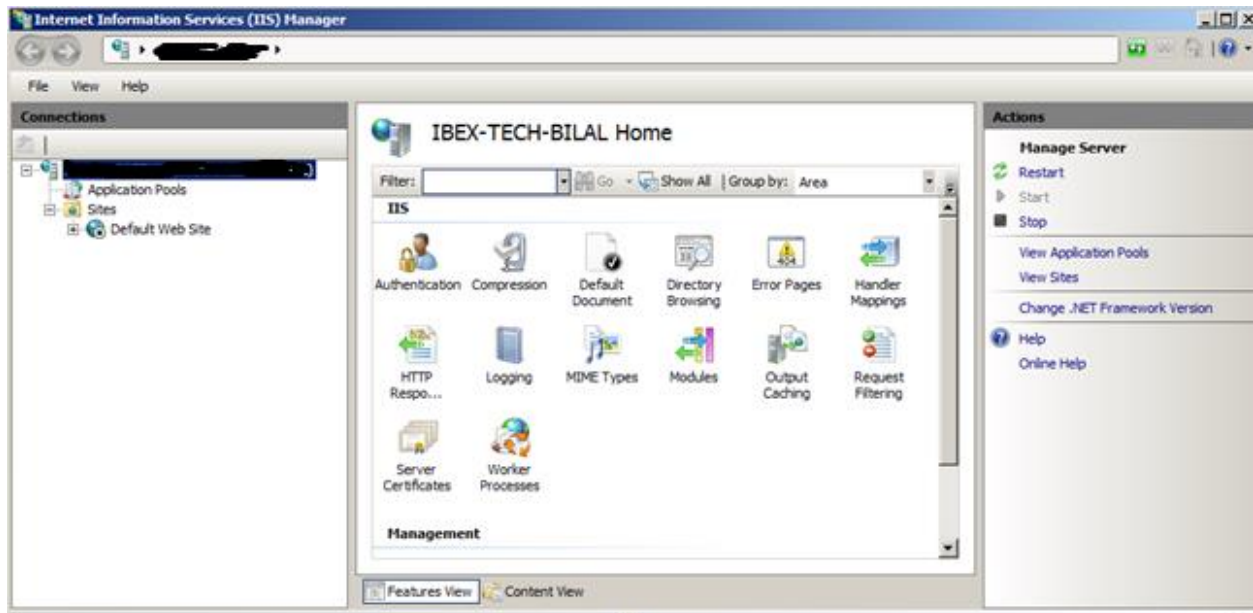
- 1- Open command prompt (as Administrator)
- 2- Go to "C:\Windows\Microsoft.NET\Framework\v2.0.50727"
- 3- Run "aspnet\_regiis.exe -i"
- 4- Then Go to "C:\Windows\Microsoft.NET\Framework\v4.0.30319"
- 5- Run "aspnet\_regiis.exe -i"



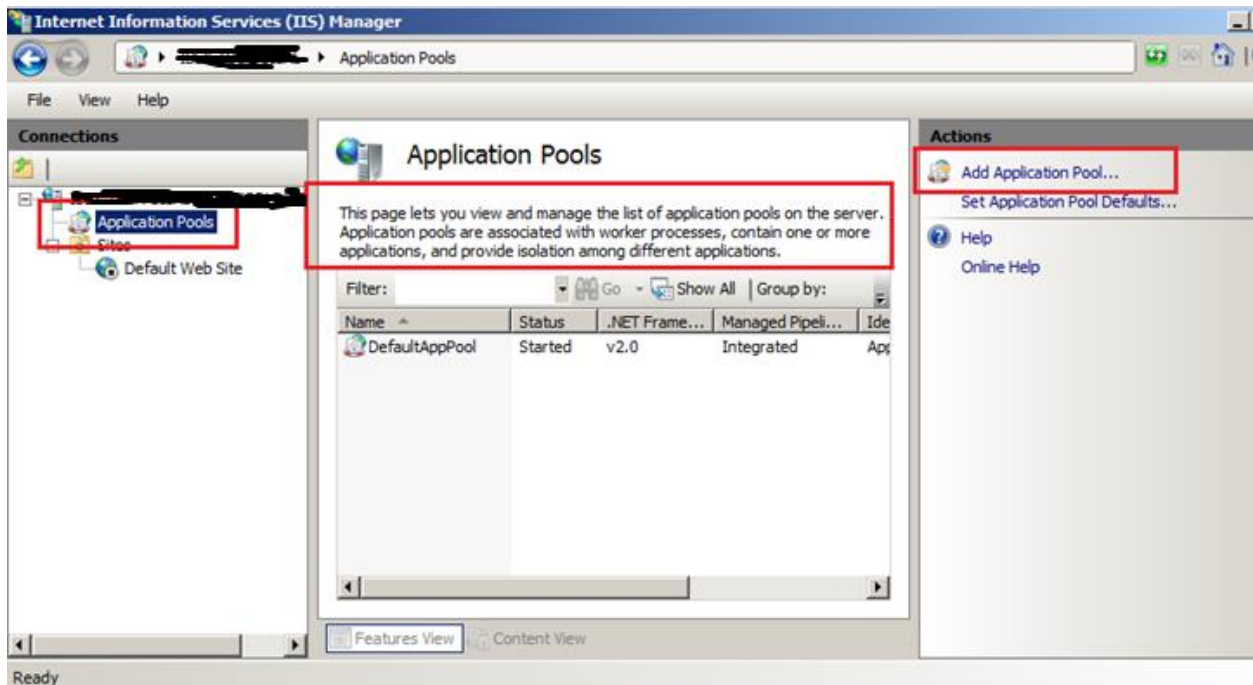
```
C:\Windows\System32>cd C:\Windows\Microsoft.NET\Framework\v2.0.50727
C:\Windows\Microsoft.NET\Framework\v2.0.50727>aspnet_regiis.exe -i
Finished installing ASP.NET (2.0.50727).
C:\Windows\Microsoft.NET\Framework\v2.0.50727>cd..
C:\Windows\Microsoft.NET\Framework>cd v4.0.30319
C:\Windows\Microsoft.NET\Framework\v4.0.30319>aspnet_regiis.exe -i
Microsoft (R) ASP.NET RegIIS version 4.0.30319.18408
Administration utility to install and uninstall ASP.NET on the local machine.
Copyright (C) Microsoft Corporation. All rights reserved.
Start installing ASP.NET (4.0.30319.18408).
*****
Finished installing ASP.NET (4.0.30319.18408).
C:\Windows\Microsoft.NET\Framework\v4.0.30319>
```

## Working with IIS

- 1- Open “Internet Information Services (IIS) Manager”. Here you may see “Application Pools” and “Sites”.



- 2- First we'll create an “application pool” for our application. Click on “Add Application Pool”. Give a name to pool and choose relevant “.Net Framework version”. Press “OK” to create the pool.





**Add Application Pool** [?] [X]

Name:

.NET Framework version:

Managed pipeline mode:

☒ Start application pool immediately

**Internet Information Services (IIS) Manager**

Application Pools

File View Help

**Connections**

- Application Pools
- Sites
- Default Web Site

**Application Pools**

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

Filter: [v] Go [v] Show All Group by: [v]

Name	Status	.NET Framework...	Managed Pipel...	Identity
DefaultAppPool	Started	v2.0	Integrated	ApplicationPool...
MyPool	Started	v4.0	Integrated	ApplicationPool...

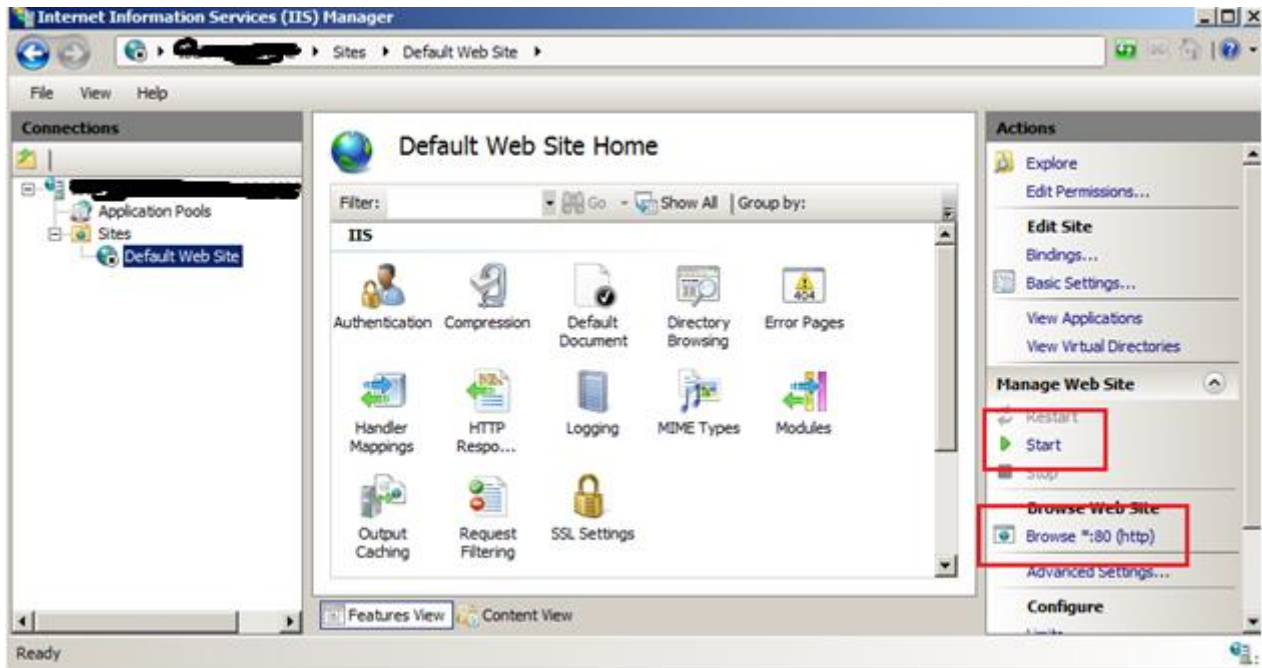
Features View Content View

**Actions**

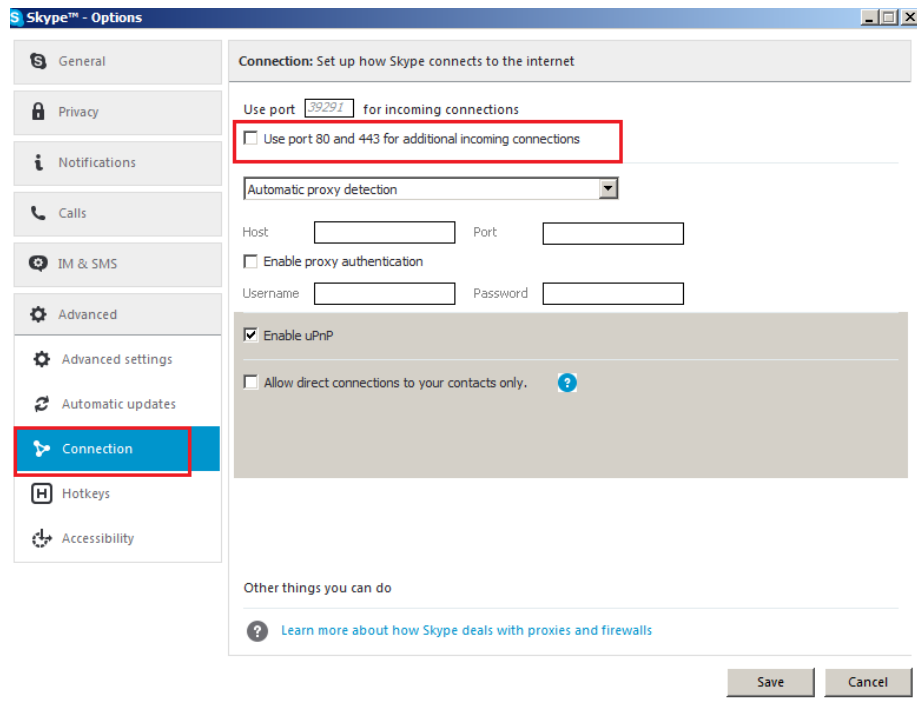
- Add Application Pool...
- Set Application Pool Defaults...
- Application Pool Tasks**
  - Start
  - Stop
  - Recycle...
- Edit Application Pool**
  - Basic Settings...
  - Recycling...
  - Advanced Settings...
  - Rename
  - Remove
  - View Applications
- Help
- Online Help

Ready

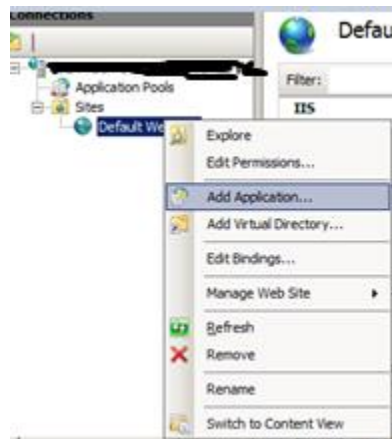
- 3- In Sites, by default a web site “Default Web Site” is available. We’ll use this for now. If it is stopped, you may run it by clicking it and choose “Start” from right most panel. If it gives any error that is most probably because port 80 is being used by any other application (skype also uses this port).



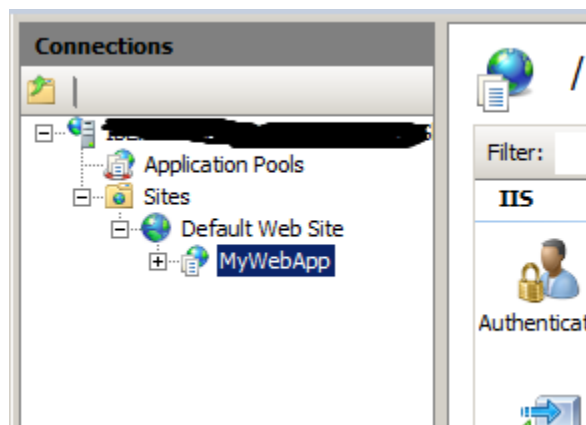
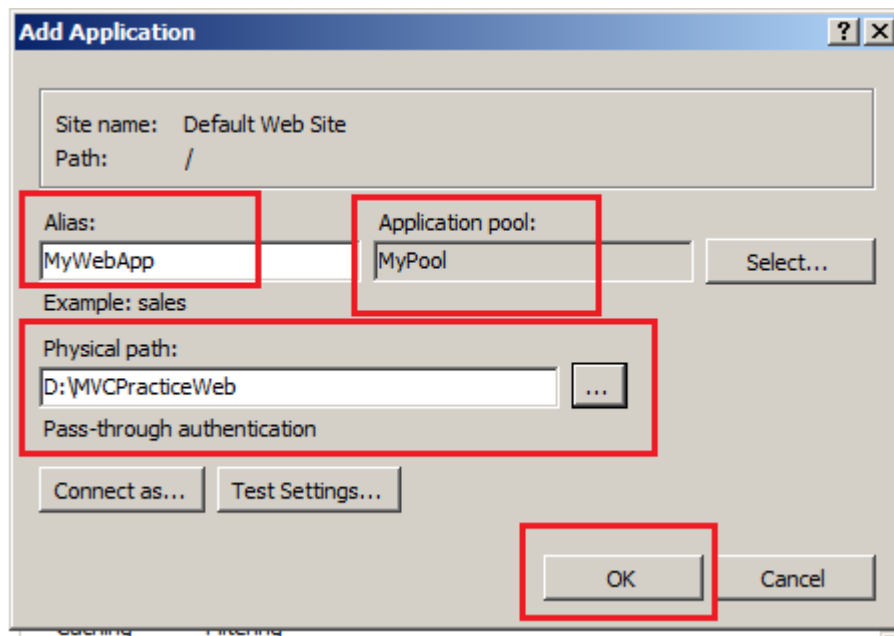
To disable usage of port 80 by Skype, you may go to Tools->Options and then uncheck the highlighted checkbox.



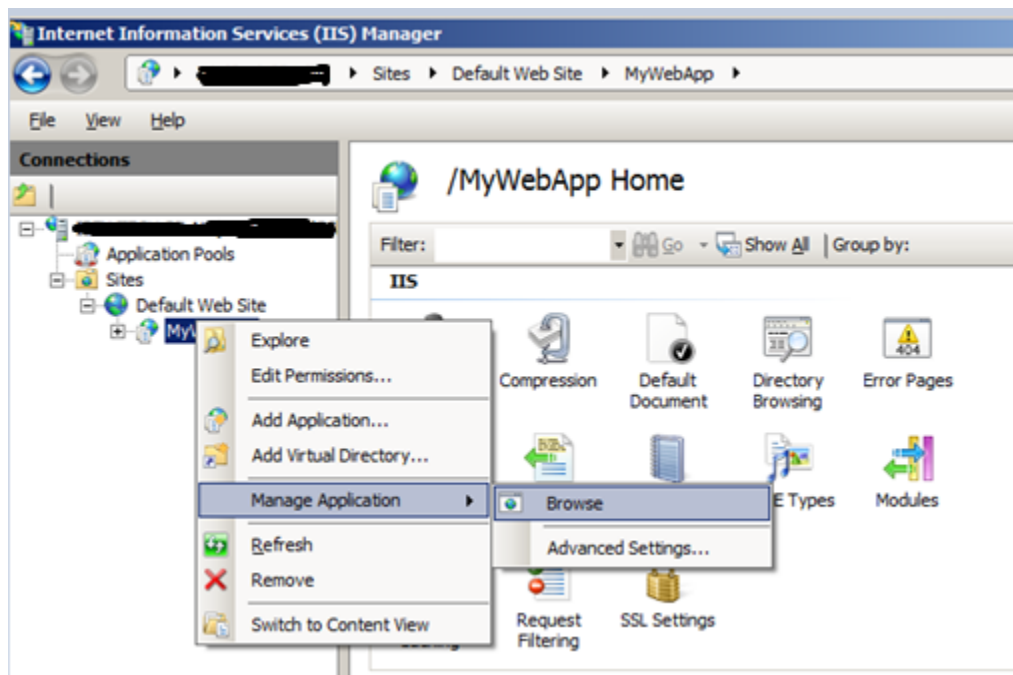
- 4- Once “Default Web Site” is in running mode, right click on it and choose “Add Application”.



- 5- “Alias” the name of the application and it will be used in URL. Select the relevant application pool. And then in “Physical Path”, provide the path of folder which contains our published content. Click “OK” to create Application.



6- Right click on “MyWebApp” -> “Manage Application” -> “Browse” to run the application



## Some Useful Links

### 1- Application Pool

- a. <http://stackoverflow.com/questions/3868612/what-is-an-iis-application-pool>
- b. <http://www.developer.com/net/asp/article.php/2245511/IIS-and-ASPNET-The-Application-Pool.htm>
- c. <http://www.c-sharpcorner.com/UploadFile/225740/introduction-to-application-pool-in-iis/>

### 2- Application vs. Virtual Directory

- a. <http://stackoverflow.com/questions/5500326/whats-the-difference-between-web-app-and-virtual-folder-in-the-context-of-iis-7>
- b. <http://serverfault.com/questions/102523/difference-between-application-and-virtual-directory>
- c. (A little advance): <http://blogs.msdn.com/b/wenlong/archive/2006/11/22/virtual-application-vs-virtual-directory.aspx>

### 3- Setting up Bindings in IIS

- a. <http://blogs.technet.com/b/chrade/archive/2010/01/24/understanding-iis-bindings-websites-virtual-directories-and-lastly-application-pools.aspx>
- b. <http://www.orcsweb.com/blog/mark-newnam/how-to-set-up-site-bindings-in-internet-information-services-iis/>

### 4- ASP.NET Registration with IIS

- a. <http://www.aspsnippets.com/Articles/Installing-and-registering-ASPNet-with-IIS-and-add-ASPNet-40-Application-Pool-in-IIS.aspx>
- b. <https://msdn.microsoft.com/en-us/library/k6h9cz8h.aspx>