

# ITSA1001: Server Administration Fundamentals

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## WEEK 10 PRACTICAL: IIS INSTALLATION and CONFIGURATION

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# Objective

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- To install IIS (Internet Information Service), and configure it so that machines on the network can access it with a domain name.

# Your assignment task for this week

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- Record date, time
- Record all configuration updates you have made to the server during this practical task.
  - Add screen shots to highlight the changes.
  - The screenshot should show your name/student ID
- Report any errors/warnings from the event viewer
- Record the server status at the time you have done everything e.g. running normally or any observable issues.

# Installing the Web Server

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- Install the Web Server (IIS) role, leaving everything else as default setting
- Configure the DNS service, so that you can give your server an alias under the vit.edu.au domain name.

# Installing the Web Server

The screenshot displays the Windows Server Manager interface. The top navigation bar shows 'Server Manager' and 'Dashboard'. A left-hand sidebar contains a 'Dashboard' menu and a tree view of server components: Local Server, All Servers, AD DS, DHCP, DNS, and File and Storage Services. The main content area is titled 'WELCOME TO SERVER MANAGER' and features a 'QUICK START' section with a numbered list of tasks. An arrow points to the second task, 'Add roles and features'. Below this, the 'ROLES AND SERVER GROUPS' section shows six server groups: AD DS, DHCP, DNS, File and Storage Services, Local Server, and All Servers. Each group has a 'Manageability' icon and a list of sub-items: Events, Services, Performance, and BPA results. The 'Local Server' and 'All Servers' groups have red status indicators for 'Events' (1) and 'Services' (3). The bottom of the screen shows the Windows taskbar with the system tray displaying the time as 3:04 AM on 5/24/2016.

Server Manager - Dashboard

WELCOME TO SERVER MANAGER

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

4 Create a server group

ROLES AND SERVER GROUPS

Roles: 4 | Server groups: 1 | Servers total: 1

Role/Server Group	Count	Sub-items
AD DS	1	Manageability, Events, Services, Performance, BPA results
DHCP	1	Manageability, Events, Services, Performance, BPA results
DNS	1	Manageability, Events, Services, Performance, BPA results
File and Storage Services	1	Manageability, Events, Services, Performance, BPA results
Local Server	1	Manageability, Events (1), Services (3), Performance, BPA results
All Servers	1	Manageability, Events (1), Services (3), Performance, BPA results

# Installing the Web Server

The screenshot shows the Windows Server Manager interface. The 'Add Roles and Features Wizard' is open, displaying a list of roles to be installed on the destination server 'WIN-1234.vit.edu.au'. The 'Web Server (IIS)' role is selected, indicated by a checkmark. A text annotation 'Tick Web Server (IIS)' with an arrow points to this role. The wizard also shows that 'File and Storage Services (3 of 12 installed)' are already present. The dashboard on the right shows the server configuration summary for 'Local Server' and 'All Servers', with counts for 'Manageability', 'Events', and 'Services'.

WELCOME TO SERVER MANAGER

1 Configure this local server

QUICK START

Server Manager Dashboard

Local Server

All Servers

AD DS

DHCP

DNS

File and Storage Services

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select one or more roles to install on the selected server.

Roles

- Application Server
- DHCP Server (Installed)
- DNS Server (Installed)
- Fax Server
- File and Storage Services (3 of 12 installed)
- Hyper-V
- Network Policy and Access Services
- Print and Document Services
- Remote Access
- Remote Desktop Services
- Volume Activation Services
- Web Server (IIS)
- Windows Deployment Services
- Windows Server Essentials Experience
- Windows Server Update Services

Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

File and Storage Services 1

Manageability

Events

Services

Performance

BPA results

Local Server 1

Manageability

1 Events

3 Services

Performance

BPA results

All Servers 1

Manageability

1 Events

3 Services

Performance

BPA results

5/24/2016 3:00 AM

5/24/2016 3:00 AM

3:04 AM 5/24/2016

Right Ctrl

Tick Web Server (IIS)

Note: Leave everything else as it is

# Install the Web Server

The screenshot shows the Windows Server Manager interface for a server named WIN-1234. The 'DNS' tool is selected in the left-hand navigation pane. The main area displays the 'SERVICES' section, showing the 'DNS Server' service is running. The 'EVENTS' section shows a warning event from the 'Microsoft-Windows-DNS-Server-Service' source. The 'Tools' menu is open, and 'DNS' is highlighted. A text overlay 'Select Tools -> DNS' is present, with an arrow pointing to the 'Tools' menu and another arrow pointing to the 'DNS' option in the menu.

Server Name	IPV4 Address	Manageability	Last Update	Windows Activation
WIN-1234	192.168.123.1	Online - Performance counters not started	5/24/2016 3:10:23 AM	Not activated

Server Name	ID	Severity	Source	Log	Date and Time
WIN-1234	4013	Warning	Microsoft-Windows-DNS-Server-Service	DNS Server	5/24/2016 2:59:26 AM

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	DNS Server	DNS	Running	Automatic

# Install the Web Server

Expand to  
[Server Name]  
-> vit.edu.au

Right click anywhere here,  
select New Alias (CNAME)

Name	Type	Data	Timestamp
_msdcs			
_sites			
_tcp			
_udp			
DomainDnsZones			
ForestDnsZones			
(same as parent folder)	Start of Authority (SOA)	[36], win-1234.vit.edu.au, ...	static
(same as parent folder)	Name Server (NS)	win-1234.vit.edu.au.	static
(same as parent folder)	Host (A)	192.168.123.1	5/24/2016 3:00:00 AM
experien-76bf98	Host (A)	192.168.123.2	5/24/2016 3:00:00 AM
s1999489	Host (A)	192.168.123.2	4/22/2016 3:00:00 AM
server	Alias (CNAME)	win-1234.vit.edu.au	static
win-1234	Host (A)	192.168.123.1	static

# Install the Web Server

The screenshot shows the DNS Manager console in Windows Server 2012. A 'New Resource Record' dialog box is open, allowing the user to create a new record. The record type is 'Alias (CNAME)'. The 'Fully qualified domain name (FQDN)' is set to 'vit.edu.au'. The 'Fully qualified domain name (FQDN) for target host' is currently blank, and the 'Browse...' button is highlighted, indicating the next step in the process.

Name	Type	Data	Timestamp
WIN-1234	Host (A)	192.168.123.1	5/24/2016 3:00:00 AM
server	Host (A)	192.168.123.2	5/24/2016 3:00:00 AM
experien-76bf98	Host (A)	192.168.123.3	4/22/2016 3:00:00 AM
win-1234	Host (A)	192.168.123.1	5/24/2016 3:00:00 AM
server	Alias (CNAME)		
Start of Authority (SOA)		[36], win-1234.vit.edu.au, ... static	
Name Server (NS)		win-1234.vit.edu.au, static	

For the Alias, give it something simple, but describe its aim. I.e.: student

Click on Browse

# Install the Web Server

The screenshot shows the Windows DNS Manager interface. The left pane displays the DNS hierarchy for 'WIN-1234.vit.edu.au', including Forward Lookup Zones, Reverse Lookup Zones, and Trust Points. The main pane shows a list of DNS records with columns for Name, Type, Data, and Timestamp. A 'New Resource Record' dialog box is open, showing a 'Browse' window with a tree view of the DNS zones. The 'vit.edu.au' zone is selected, and the 'win-1234' record is highlighted. The 'Record types' dropdown is set to 'Hosts and Aliases (A and CNAME Records)'.

Name	Type	Data	Timestamp
_msdcs			
_sites			
_tcp			
_udp			
DomainDnsZones			
ForestDnsZones			
(same as parent folder)	Start of Authority (SOA)	[36], win-1234.vit.edu.au, ... static	
(same as parent folder)	Name Server (NS)	win-1234.vit.edu.au. static	
(same as parent folder)	Host (A)	192.168.123.1	5/24/2016 3:00:00 AM
experien-76bf98	Host (A)	192.168.123.2	5/24/2016 3:00:00 AM
s1999469	Host (A)	192.168.123.3	4/22/2016 3:00:00 AM
server	Alias (CNAME)		
win-1234	Host (A)		

**New Resource Record**

Alias (CNAME)

Browse

Look in: vit.edu.au

Records:

Name	Type
WIN-1234.vit.edu.au	
Forward Lookup Zones	
ForestDnsZones	
vit.edu.au	Host (A)
(same as parent folder)	Host (A)
experien-76bf98	Host (A)
s1999469	Host (A)
server	Alias (CNAME)
win-1234	Host (A)

Selection:

Record types: Hosts and Aliases (A and CNAME Records)

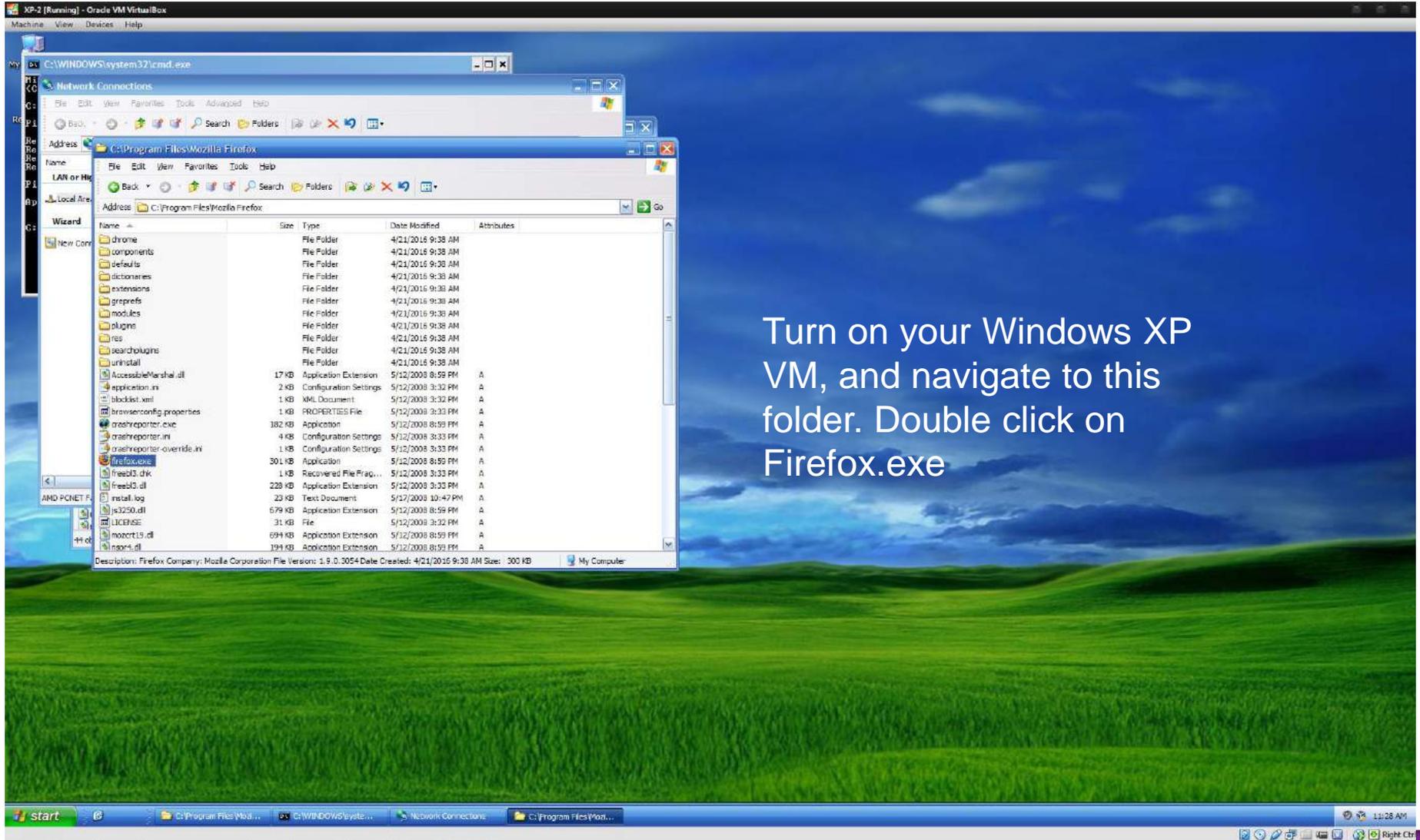
OK Cancel

OK Cancel

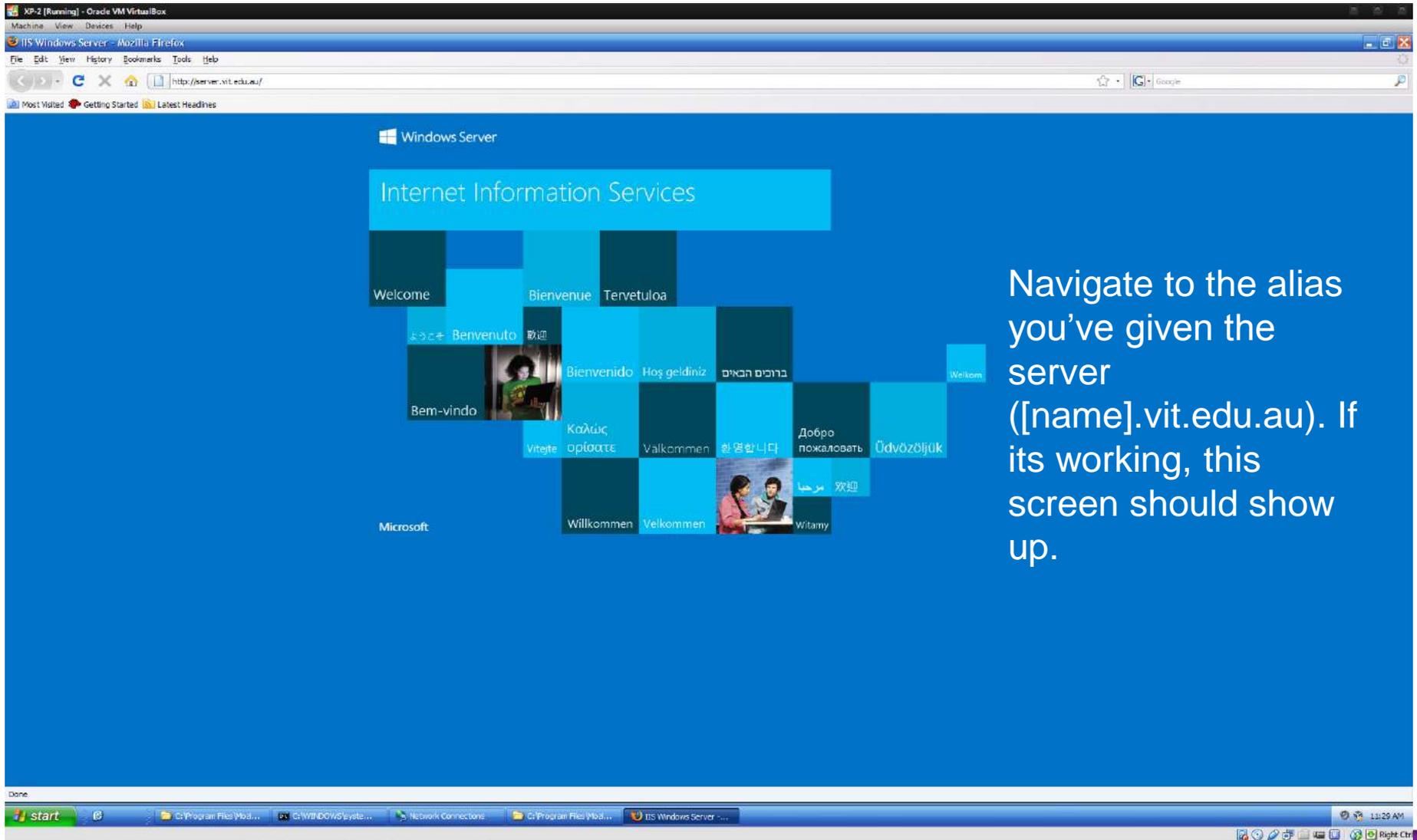
Select where you are now [Server Name] -> Forward lookup Zones -> vit.edu.au.

Select your server name in the list. For mine, its win-1234.

# Install the Web Server



# Install the Web Server



Navigate to the alias you've given the server ([name].vit.edu.au). If its working, this screen should show up.

# Configuring a sample webpage

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- In this step, we're going to create a simple HTML webpage, and configure IIS to display it

# Configuring a sample webpage

The screenshot displays a Windows Server 2012 virtual machine environment. The primary window is the Internet Information Services (IIS) Manager, showing the 'Sites' configuration page. A table lists the configured sites:

Name	ID	Status	Binding	Path
Default Web Site	1	Stopped (http)	*:80 (http)	%Sys
Student Portal	2	Started (http)	*:80 (http)	F:\Pu

Overlaid on the IIS Manager is a File Explorer window showing the 'DATA (F:)' drive. The drive contains three folders:

Name	Date modified	Type	Size
Public	5/24/2016 3:32 AM	File folder	
Staff_Shared	5/12/2016 1:24 AM	File folder	
Student_Shared	5/12/2016 1:23 AM	File folder	

At the bottom of the screen, a Services console window is visible, showing the status of several services:

Server Name	Display Name	Service Name	Status	Start T
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Autom
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Autom
WIN-1234	Windows Process Activation Service	WAS	Running	Manua

The text 'Open Explorer, and navigate to your DATA partition' is overlaid on the right side of the File Explorer window.

# Configuring a sample webpage

The screenshot displays the Windows Server 2012 interface. The Internet Information Services (IIS) Manager is open, showing the 'Sites' tab with the following table:

Name	ID	Status	Binding	Path
Default Web Site	1	Stopped (http)	*:80 (http)	%Sys
Student Portal	2	Started (http)	*:80 (http)	F:\Pu

The File Explorer window is open to the 'DATA (F:)' drive, showing the 'View' tab selected. The 'Options' menu item is highlighted. The taskbar at the bottom shows the system tray with the time 3:41 AM and date 5/24/2016.

Switch to the view tab,  
and select Options

# Configuring a sample webpage

The screenshot displays a Windows Server 2012 environment. The Internet Information Services (IIS) Manager is open, showing a list of sites. A File Explorer window is open to the DATA (F:) drive. The Folder Options dialog box is open, and the 'View' tab is selected. The 'Folder views' section is expanded, and the 'Advanced settings' section is visible. The 'Hide extensions for known file types' checkbox is unchecked, and an arrow points to it. The 'Files and folders' section is also expanded, and the 'Show hidden files, folders, and drives' checkbox is checked. The 'Folder Options' dialog box has a blue border and a search bar at the top. The 'View' tab is selected, and the 'Folder views' section is expanded. The 'Advanced settings' section is visible, and the 'Hide extensions for known file types' checkbox is unchecked. An arrow points to this checkbox. The 'Files and folders' section is also expanded, and the 'Show hidden files, folders, and drives' checkbox is checked. The 'Folder Options' dialog box has a blue border and a search bar at the top. The 'View' tab is selected, and the 'Folder views' section is expanded. The 'Advanced settings' section is visible, and the 'Hide extensions for known file types' checkbox is unchecked. An arrow points to this checkbox. The 'Files and folders' section is also expanded, and the 'Show hidden files, folders, and drives' checkbox is checked.

Internet Information Services (IIS) Manager

Name	ID	Status	Binding	Path
Default Web Site	1	Stopped (http)	*:80 (http)	%Sys
Student Portal	2	Started (http)	*:80 (http)	F:\Pu

DATA (F:)

Folder Options

Folder views

You can apply this view (such as Details or Icons) to all folders of this type.

Apply to Folders Reset Folders

Advanced settings:

- Files and folders
  - Always show icons, never thumbnails
  - Always show menus
  - Display file icon on thumbnail
  - Display file size information in folder tips
  - Display the full path in the title bar
- Hidden files and folders
  - Don't show hidden files, folders, or drives
  - Show hidden files, folders, and drives
- Hide empty drives
- Hide extensions for known file types
- Hide folder merge conflicts

Restore Defaults

OK Cancel Apply

Server Name Display Name Service Name Status Start T

WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Autom
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Autom
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

Untick "Hide extensions for known file types"

# Configuring a sample webpage

Server Manager

Server Manager • IIS

Dashboard  
Local Server  
All Servers  
AD DS  
DHCP  
DNS  
File and Storage Services  
**IIS**

**SERVERS**  
All servers | 1 total

Server Name	IPv4 Address	Manageability	Last Update	Windows Activation
WIN-1234	192.168.123.1	Online - Performance counters not started	5/24/2016 3:37:50 AM	Not activated

**EVENTS**  
All events | 1 total

Server Name	ID	Severity	Source	Log	Date and Time
WIN-1234	1007	Error	Microsoft-Windows-IIS-W3SVC	System	5/24/2016 3:32:20 AM

**SERVICES**  
All services | 3 total

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

Back in the Server Manager, switch to the new IIS option

3:43 AM  
5/24/2016

# Configuring a sample webpage

The screenshot shows the Windows Server Manager interface. On the left, the 'IIS' link is highlighted in the navigation pane. The main area displays a list of servers under the 'SERVERS' section. The server 'WIN-1234' is selected, and a context menu is open over it. An arrow points to the 'Internet Information Services (IIS) Manager' option in the menu. Below the servers list, the 'SERVICES' section shows a table of running services.

Right click on your Server, and select IIS Manager

Server Name	ID	Status	Message	Time
WIN-1234	1007	Error	Microsoft-Windows-IIS-W3SVC System	5/24/2016 3:32:20 AM

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

# Configuring a sample webpage

The screenshot shows the Internet Information Services (IIS) Manager interface. The 'Sites' section is expanded, showing a table with one entry: 'Default Web Site' with ID 1, Status 'Stopped (http)', Binding '\*:80 (http)', and Path '%Sys'. The 'Actions' menu is open, and the 'Remove' option is highlighted with a red 'X' icon. A text overlay in the center of the IIS Manager window reads: 'Remove the default site, and click on Add Website'. Two black arrows point from the text to the 'Remove' option and the 'Add Website...' option in the 'Actions' menu.

Name	ID	Status	Binding	Path
Default Web Site	1	Stopped (http)	*:80 (http)	%Sys

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

# Configuring a sample webpage

The screenshot shows the 'Add Website' dialog box in IIS Manager. The 'Site name' is 'Student Portal'. The 'Physical path' field has an ellipsis button highlighted with a black arrow. The 'Binding' section shows 'http' on 'All Unassigned' port '80'. The 'Start Website immediately' checkbox is checked.

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

Set the name as Student Portal, and click on ... in the Physical Path section

# Configuring a sample webpage

The screenshot shows the Internet Information Services (IIS) Manager interface. The 'Add Website' dialog box is open, and the 'Browse For Folder' dialog is also open, showing the file system tree. The 'student\_portal' folder is selected under 'DATA (F:) > Public'. The 'Add Website' dialog has the following fields filled:

- Site name: Student Portal
- Application pool: Student Portal
- Physical path: (empty)
- Pass-through authentication: (unchecked)
- Binding Type: http
- IP address: All Unassigned
- Host name: (empty)
- Start Website immediately:

The 'Browse For Folder' dialog shows the following file system tree:

- Local Disk (C:)
- CD Drive (D:) VirtualBox Guest Additions
- CD Drive (E:)
- DATA (F:)
  - Public
    - student\_portal
    - Staff\_Shared
    - Student\_Shared
  - Libraries
  - Network
  - Control Panel
  - Recycle Bin

Navigate to DATA: Public, and create a new folder called student\_portal

# Configuring a sample webpage

The screenshot shows the Internet Information Services (IIS) Manager interface. The main pane displays a list of sites, with 'Student Portal' selected. The Actions pane on the right contains various options, and an arrow points to the 'Explore' button. A text overlay in the center of the main pane reads 'Click on Explore'.

Name	ID	Status	Binding	Path
Student Portal	1	Started (http)	*:80 (http)	F:\P...

Click on Explore

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

# Configuring a sample webpage

Right click on the Empty Folder, select New -> Text Document. Name it index.html

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

# Configuring a sample webpage

The screenshot shows a Windows Server 2012 virtual machine. In the foreground, a File Explorer window titled 'student\_portal' is open to the path 'This PC > DATA (F:) > Public > student\_portal'. A file named 'index.html' is selected, and a context menu is open over it. The 'Open with' option is selected, and the 'Choose default program...' option is highlighted. In the background, the IIS Manager console is visible, showing the 'Actions' pane for the selected website. The 'Actions' pane includes options like 'Add Website...', 'Edit Site', 'Manage Website', and 'Browse Website'. The 'Manage Website' section is expanded, showing 'Restart', 'Start', and 'Stop' options. The 'Browse Website' section is also expanded, showing 'Browse http://' and 'Advanced Settings...' options. The 'Configure' section is also expanded, showing 'Limits...' and 'Help' options. The bottom of the screen shows the Windows taskbar with the Start button, several application icons, and the system tray showing the time as 3:49 AM on 5/24/2016.

Right click on the file, select  
Open With > Chose Default  
Program

# Configuring a sample webpage

The screenshot shows a Windows Server 2012 virtual machine environment. A File Explorer window is open to the 'student\_portal' folder, displaying a file named 'index.html'. A context menu is open over this file, with the option 'Use this app for all .html files' checked. Other options include 'Keep using Internet Explorer', 'Notepad', 'Paint', and 'WordPad'. In the background, the IIS Manager console is visible, showing the 'Actions' pane with options like 'Add Website...', 'Edit Site', and 'Manage Website'. At the bottom, a Services console window is open, displaying a table of services.

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	World Wide Web Publishing Service	W3SVC	Running	Automatic
WIN-1234	Application Host Helper Service	AppHostSvc	Running	Automatic
WIN-1234	Windows Process Activation Service	WAS	Running	Manual

Click on more options -> Notepad

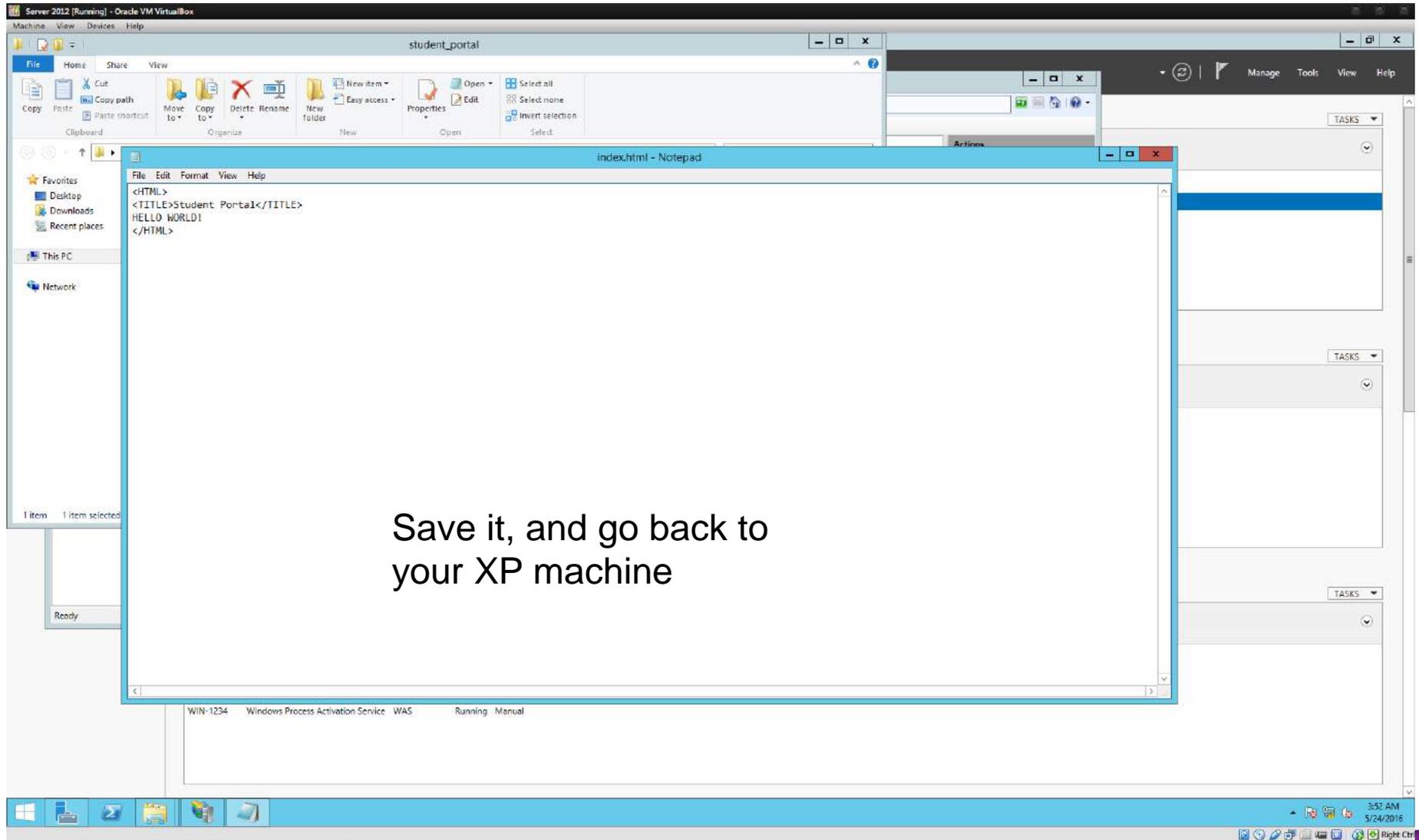
# Configuring a sample webpage

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- In the text file, enter the following:

```
<HTML>  
<TITLE>STUDENT PORTAL</TITLE>  
HELLO WORLD!  
</HTML>
```

# Configuring a sample webpage



# Configuring a sample webpage



Refresh it, your new page  
should be shown

