NWA107: Administering the Web Server (IIS) Role of Windows Server

Overview:

This course provides students with the fundamental knowledge and skills to configure and manage Internet Information Services. This course is intended to help provide pre-requisite skills supporting a broad range of Internet web applications, security, and knowledge to help support other products that use IIS such as Exchange and SharePoint. In keeping with that goal, this course will not focus on any particular web application or development practice.

Prerequisites:

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- Experience with Windows networking technologies and implementation.
- Experience with Windows Server administration, maintenance, and troubleshooting.
- Experience with Windows Client administration, maintenance, and troubleshooting.

Course completion:

After completing this course, students will be able to:

- Install IIS
- Configure the default web site
- Configure and manage application pools
- Create additional web sites
- Configure web sites and application support
- Secure web sites and applications
- Secure web site data transmission
- Manage certificates in the Centralized Certificate Store
- Configure remote administration
- Implement FTP
- Monitor IIS
- Backup and restore IIS
- Build load-balanced web farms

Course Outline:

Module 1: Understanding and Installing Internet Information Services

In this module, you will learn about the infrastructure prerequisites for using Microsoft Internet Information Services (IIS) 8.5. Students will also learn about the high-level architecture of IIS, and will learn to perform a basic installation and configuration of IIS.

Lessons

- Understanding a Web Server infrastructure
- Installing Internet Information Services

Lab: Installing Internet Information Services

- Installing Internet Information Services
- Verify the Web Server Installation

After completing this modules, student will be able to:

- Describe the prerequisites for using IIS
- Describe the architecture of IIS
- Install IIS and configure basic security settings

Module 2: Configuring The Default Website

In this module students will learn to plan and implement network requirements for a public website. Students will configure Domain Name Service (DNS) records to support access to both internal and public websites, and create virtual directories and application folders for additional website content.

Lessons

- Examining the Default Website Using IIS Manager
- Examining the Default IIS File Structure
- Configuring DNS Records for a Website
- Creating Folders, Virtual Directories, and Applications

Lab: Configuring the Default Website for Public Access

- Create DNS records for public and internal access to the default website
- Creating webpages and adding web application support

Lab: Creating Virtual Directories and Applications

- Creating folders, virtual directories, and applications

After completing this modules, student will be able to:

- Plan and configure the DNS records and networking requirements that support website access
- Describe the default Microsoft Internet Information Services (IIS) folder structure for a website
- Create a webpage that verifies website functionality
- Install additional role services that support a web application
- Create folders, virtual directories, and applications that can contain additional website content

Module 3: Configuring and Managing Application Pools

In this module students will learn the benefits to the application pool architecture. Students will create and configure application pools to support additional applications and configure application pool recycle settings. Students will perform recycle events and examine the event logs for recycle events.

Lessons

- Defining the Application Pool Architecture
- Creating and Managing Application Pools
- Configuring Application Pool Recycling

Lab: Configuring and Managing Application Pools

- Create and configure application pools

Lab: Configuring Application Pool Recycling

- Configure and test application pool recycling settings

After completing this modules, student will be able to:

- Describe the benefits of the application pool architecture
- Configure application pools to support web applications
- Configure application pool recycling
- Recycle application pools
- Monitor application pool recycling by using event logs

Module 4: Creating Additional Websites

In this module students will learn how to examine and create new websites using unique bindings to avoid naming conflicts. Students will examine existing sites to determine and resolve binding conflicts then create new websites by using unique bindings.

Lessons

- Understanding Configurations for Multiple Websites
- Configuring Website Bindings
- Creating and Starting Websites

Lab: Examining Existing Websites for Binding Conflicts

- Document basic website settings

Lab: Creating New Websites
- Configure and test new websites

After completing this modules, student will be able to:
- Describe the basic configuration of a server that hosts multiple websites
- Configure website bindings
- Create and configure new websites

Module 5: Configuring Website and Web Application Support

In this module students will learn to support additional application requirements including common configuration settings, platform support from the built-in web server, and include additional application support by using the Web Platform Installer.

Lessons
- Configuring Common Features
- Configuring Support for Web Applications
- Lab : Configuring Common Features
- Configure directory browsing, content compression and default documents for the Products website

Lab: Configuring Support for Web Applications
- Configuring ASP.NET settings

After completing this modules, student will be able to:
- Describe and configure common IIS features
- Add support for web applications

Module 6: Securing Websites and Applications

In this module students will learn to secure internal and public websites for users and groups by using the built-in Windows and Basic authentication. Students will configure file system permissions for specific users and groups and secure a website using URL Authorization Rules.

Lessons
- Understanding IIS Authentication and Authorization
- Configuring Authentication and Authorization
- Configuring URL Authorization Rules

Lab: Configuring Authentication and Access
- Installing and configuring anonymous authentication, Windows authentication, and basic authentication
- Configure folder permissions for a website

Lab: Configuring URL Authorization Rules
- Installing and configuring URL authorization rules

After completing this modules, student will be able to:
- Describe access control methods that are used in IIS
- Configure authentication and authorization
- Configure URL authorization rules

Module 7: Securing Website Data Transmission

In this module students will protect customer data using websites configured for SSL. Students will install and configure PKI certificates on a web server, create secured bindings, and verify that a website data transmissions are secured.

Lessons
- Understanding Certificates and SSL
- Creating and Managing Web Server Certificates
- Configuring HTTPS Bindings

Lab: Creating and Managing Web Server Certificates
- Create, export, and import a self-signed certificate

Lab: Adding a Certificate to a Website
- Add HTTPS bindings to websites

After completing this modules, student will be able to:
- Describe the benefits and function of digital certificates and Secure Sockets Layer (SSL)
- Create SSL certificates for a web server
- Configure HTTPS bindings that use certificates

Module 8: Managing Certificates in the Centralized Certificate Store

In this module students will install and configure the IIS 8.5 Central Certificate Store to enable centralized and improved certificate management, Students will configure a website to use a secured binding with the Central Certificate Store.

Lessons
- Understanding the Centralized Certificate Store
- Installing and Configuring the Centralized Certificate Store

Lab: Installing and Configuring the Centralized Certificate Store
- Configuring websites to use the Centralized Certificate Store

After completing this modules, student will be able to:
- Explain the purpose of the Centralized Certificate Store
- Install and configure the Centralized Certificate Store

Module 9: Configuring Remote Administration

In this module students will configure secured remote management of web servers and websites. Create and configure permissions for site level administrators and developers, and verify web server and website management

Lessons
- Installing and Configuring the Management Service
- Connecting to Remote Web Servers and Websites
- Delegating Management Permissions

Lab: Installing and Configuring the Management Service
- Installing and configuring the management service

Lab: Connecting to Remote Web Server and Websites
- Connecting to and managing a remote web server and website

Lab: Delegating Management Permissions
- Creating and managing IIS Manager users

After completing this modules, student will be able to:
- Install and configure the IIS management service.
- Connect to remote web servers and websites.
- Delegate management permissions.

Module 10: Implementing FTP

In this module students will learn configure a secured FTP site for users to store and retrieve files. Student will configure authentication, authorization and the FTP storage location. Students will retrieve and files using the native Windows FTP command.

Lessons
- Planning for FTP
- Implementing an FTP site
- Uploading and Downloading by Using FTP

Lab: Installing and Configuring an FTP Site
- Installing and configuring an FTP site

After completing this modules, student will be able to:
- Describe the architecture and requirements of FTP
- Implement anonymous and authenticated FTP sites
- Upload and download files by using FTP

Module 11: Monitoring IIS

In this module students will learn to monitor IIS log files and performance counters using Log Parser and PerfMon. Students will identify common issues related to performance and attacks recorded in the log files.

Lessons
- Monitoring IIS Logs
- Analyzing Performance Counters

Lab: Monitoring IIS Logs
- Configuring and querying log files

Lab: Analyzing Performance Counters
- Collecting and evaluating performance data

After completing this modules, student will be able to:
- Monitor IIS log files
- Analyze IIS performance counters

Module 12: Backing Up and Recovering IIS

In this module students will learn to backup and recover form a website or web server failure. Students will learn the importance of using high available techniques to avoid the recovery process.

Lessons
- Understanding IIS Backup and Recovery Components
- Backing Up and Recovering a Website

Lab: Backing Up and Recovering Configuration History
- Back up and recover configuration history

After completing this modules, student will be able to:
- Explain the components of IIS backup and recovery.
- Back up and recover a website.

Module 13: Building Load-Balanced Web Farms

In this module students will learn to increase reliability and performance of website by creating a web farm. Students will improve the management and update capabilities of the websites by using shared content in both a network share and DFS-R. Student will improve web server and website management by using Shared Configurations.

Lessons
- Understanding Load-Balancing Mechanisms
- Building a Load-Balanced Web Farm by Using ARR
- Sharing Content in a Web Farm by Using Shared Folders
- Sharing Content in a Web Farm by Using DFS-R
- Sharing IIS Configurations in a Web Farm

Lab: Building a Load-Balanced Web Farm by Using ARR
- Configuring and testing a web farm

Lab: Sharing Content in a Web Farm by Using Shared Folders
- Configuring a web farm to use content from a shared folder

Lab: Sharing Web Farm Content by Using DFS-R
- Installing and configuring DFS-R

Lab: Sharing IIS Configurations in a Web Farm
- Configuring shared configurations
- Installing a new component in a shared configuration

After completing this modules, student will be able to:
- List load-balancing mechanisms that can be used in a web farm.
- Plan and deploy a load-balanced web farm that uses ARR.
- Centralize the content for a web farm by using shared folders.
- Centralize the content for a web farm by using Distributed File System-Replication (DFS-R).
- Centralize the configuration of a web farm.

วิทยากร: อ.เอกฤทธิ์ ธรรมสถิต

- MASTER OF BUSINESS ADMINISTRATION (EXECUTIVE) DEGREE
  SASIN GRADUATE INSTITUTE OF BUSINESS ADMINISTRATION OF CHULALONGKORN UNIVERSITY
- MASTER OF SCIENCE, MAJOR IN INFORMATION
  Technology Faculty of Information Technology
  KING'S MONGKUT INSTITUTE OF TECHNOLOGY LADKRABANG
- BACHELOR OF SCIENCE
  KING'S MONGKUT INSTITUTE OF TECHNOLOGY NORTH BANGKOK
- DIPLOMA PROGRAM FOR MANAGEMENT
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Certificate:
- Microsoft Certified professional (MCP)
- Microsoft Certified Systems Administrator (MSCA)
- Microsoft Certified Systems Engineer (MSCE)
- Cisco Certified Network Associate (CCNA)
- Certificate of CompTIA Security+
- Certified Technical training CTT+
- Certified Ethical Hacker
- Certified Hacking Forensic Investigator
- Certified Wireless Network Administrator
- Certified Wireless Security Professional

จำนวนชั่วโมงในการฝึกอบรม: 5 วัน (30 ชั่วโมง)

กำหนดการอบรม: ตามตารางปฏิทินอบรมประจำปี https://www.career4future.com/trainingprogram

ช่วงเวลาฝึกอบรม: 9.00 - 16.00 น.

ค่าลงทะเบียนอบรม: ท่านละ 35,000 บาท (ราคารวมภาษีมูลค่าเพิ่มแล้ว)
** สถาบันฯ เป็นหน่วยงานราชการ จึงไม่อยู่ในเกณฑ์ที่ต้องถูกหักภาษี ณ ที่จ่าย

สถานที่ฝึกอบรม:
สถาบันพัฒนาบุคลากรแห่งอนาคต
เลขที่ 73/1 อาคารสำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ (สวทช.) ชั้น 6
ถนนพระรามที่ 6 แขวงทุ่งพญาไท เขตราชเทวี กรุงเทพฯ 10400

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