MD-100: Windows 10

Duration: 40 Hours (5 Days)

Overview

The MD-100: Windows 10 course is a comprehensive training program designed to educate learners on the various aspects of the Windows 10 operating system. It covers a range of topics from installation and configuration to maintenance and troubleshooting of Windows 10. This basic Windows training course is essential for professionals looking to deepen their understanding of Windows 10 and improve their skills in managing and supporting Windows 10 systems in a corporate environment. By undertaking the MD-100 course, learners will gain practical knowledge on how to install and customize Windows 10, configure networking and storage, manage data access and protection, troubleshoot common system and application issues, and much more. This course prepares individuals for the MD-100 certification exam, a crucial step towards becoming a Microsoft Certified Modern Desktop Administrator Associate. The skills acquired from this course are highly relevant and beneficial for IT professionals responsible for Windows 10 deployment, management, and troubleshooting.

Audience Profile

The MD-100: Windows 10 course is designed for IT professionals seeking to deepen their expertise in managing Windows 10 environments.

- IT Support Specialists
- Desktop Support Technicians
- System Administrators
- Network Administrators
- IT Professionals preparing for the MD-100 Windows 10 exam
- Help Desk Technicians
- Service Desk Analysts
- IT Field Technicians
- Infrastructure Specialists
- IT Professionals seeking certification in Windows 10
- Microsoft Certified Professionals (MCPs) looking to update their credentials
- Technical Consultants who assist organizations in adopting Windows 10 systems
- System Engineers who need to support Windows 10 in enterprise environments
- IT Professionals who need to migrate systems from older versions of Windows to Windows 10

Course Syllabus

Module 1: Installing Windows

- This module covers installing the Windows 10 OS. Students will learn the different editions of Windows 10, requirements, and new features introduced. This module covers how to install theOS, as well as methods for migrations and upgrading. Students will also learn about common tools used in the deployment process.

Lessons

- Introducing Windows 10
- Windows 10 Editions and Requirements
- Installation Methods
- Upgrading and Migrating to Windows 10
- Deployment Methods

Lab: Deploying Windows using Windows ADK tools

Lab: Migrating User Settings using USMT

- After completing this module, students will be able to:
- Understanding the different editions and features of Windows 10.
- Understand the Windows 10 client installation options.
- Practice installing Windows 10.
- Migrate content using the User State Migration Tool.

Module 2: Configuring Authorization & Authentication

- This module introduces the tools and features of Windows 10 for authorizing access to Windows 10 clients. Students will learn about methods for how users sign-in to Windows 10. This module also covers restricting what users can or cannot do on a device through methods like UAC and account types.

Lessons

- Authentication
- Managing Users and Groups
- Configuring User Account Control
- Implementing Device Registration

Lab: Managing Domain Authentication

Lab: Managing Local User and Microsoft Account Authentication

Lab: Managing password and account options

Lab: Managing Azure AD Authentication

- After completing this module, students will be able to:
- Describe the different methods for securing data and the Windows 10 OS.
- Describe the different types of user and service accounts.
- Configure Windows Hello.
- Configure user account control.
- Register a device with a domain.

Module 3: Post-installation Configuration and Personalization

- This module covers common post-installation tasks in Windows 10. Students will learn how to customize the user interface, as well as using the control panel and settings app to configure common OS settings. This course will also introduce students to Windows PowerShell. This module will cover how device drivers work and how they work. Students will also be introduced to managing and configuring hardware peripherals such as printers.

Lessons

- Configure and Customize the Windows Start Menu
- Common Configuration Options

- Advanced Configuration Methods
- Managing Drivers and Devices

Lab: Managing local and network printers

Lab: Managing Windows 10 Settings

Lab: Synchronizing settings between devices

- After completing this module, students will be able to:
- Customize the Windows 10 UI
- Configure device specific settings such as power plans and mobile device options.
- Use the Windows control panel and setting app to configure settings.
- Perform tasks using Windows PowerShell.
- Describe concepts related to drivers.
- Describe printer management concepts.
- Configure client-side printing and managing print server properties.

Module 4: Updating Windows

- In this module, Students will learn about keeping Windows 10 up-to-date. Students will be introduced to the new Windows servicing model and how it applies to various scenarios. Students will learn the various different methods for updating Windows and applications, as well as managing updatesusing tools like group policy and Windows Update for Business.

Lessons

- Windows Servicing Model
- Updating Windows

Lab: Managing Windows Update Settings

- After completing this module, students will be able to:
- Describe the Windows servicing model.
- Configure Windows update settings.
- Describe updating Windows using WSUS.
- Describe updating Windows using Windows Update for Business.
- Configure Windows update using group policy.

Module 5: Configuring Networking

- In this module, Students will learn about networking concepts. This module will introduce to IPv4 and IPv6, and concepts like DNS. Students will learn how to configure network settings in Windows, aswell as learn about wireless network technologies. The module will conclude with methods of managing Windows remotely.

Lessons

- Configure IP Network Connectivity
- Implement Name Resolution
- Implement Wireless Network Connectivity
- Remote Access Overview
- Remote Management

Lab: Configuring Network Connectivity

Lab: Configuring and Testing Name Resolution

Lab: Administering Windows 10 Using Remote Management

- After completing this module, students will be able to:
- Configure IP network connectivity.
- Describe how name resolution works.
- Describe remote access technologies like VPNs.
- Configure Windows for remote management and access.

Module 6: Configuring Storage

- This module covers storage configuration and management in Windows 10. Students will be introduced to local, cloud and virtual storage options. This course will also cover configuring storage on client devices and introduce storage spaces.

Lessons

- Managing Storage
- Managing Disks and Volumes
- Managing Storage Spaces

Lab: Creating a Storage Space

Lab: Managing Storage

- After completing this module, students will be able to:
- Describe the options and benefits of local, cloud, and virtual storage.
- Configure local disk partitions and volumes.
- Describe the capabilities and benefits of Storage spaces.

Module 7: Configuring Data Access and Usage

- In this module, Students will learn about permissions. This module will cover considerations for different files systems. Students will learn how to configure file and folder permissions as well as
- shared folders. Students will also learn configuring settings through methods such as local and group policy. The module will conclude with configuring OneDrive and Work Folders.

Lessons

- Overview of File Systems
- Configuring and Managing File Access

- Configuring and Managing Shared Folders
- Managing User Files

Lab: Configuring and Managing Permissions and Shares

Lab: Using Conditions to Control Access and Effective Permissions

Lab: Work Folders

Lab: Synchronizing files with OneDrive

- After completing this module, students will be able to:
- Describe the differences and benefits of supported file systems.
- Configure file and folder permissions.
- Configure shared folders.
- Secure Windows through local policy settings.

Module 8: Managing Apps in Windows 10

- In this module, Students will be introduced to App management in Windows 10. This module will cover the different types of apps and supported installation methods. Students will learn how to install apps using manual and automated methods, as well as manage app delivery using the Windows Store. Finally, this module will cover the differences between Internet Explorer and Microsoft Edge.

Lessons

- Providing Apps to Users
- Managing Universal Windows Apps
- Web Browsers in Windows 10

Lab: Configuring Microsoft Edge to support Internet Explorer Enterprise Mode

Lab: Installing Apps in Windows 10

- After completing this module, students will be able to:
- Describe the different types of applications.
- Install applications manually and using automated methods.
- Manage application deployment using the Windows Store.
- Learn about web browser features in Windows 10.

Module 9: Configuring Threat Protection and Advanced Security

- This module introduces students to protecting devices from external threats. Students will learn about the different types of common threats. This module will teach students about using encryption, firewalls, and IPSec to help protect against threats. The module will conclude with how toconfigure and use Windows Defender and AppLocker.

Lessons

- Malware and Threat Protection
- Windows Defender

- Connection Security Rules
- Advanced Protection Methods

Lab: Configuring Microsoft Defender Antivirus and Windows Security

Lab: Configuring Firewall and Connection Security

Lab: Configuring BitLocker

- After completing this module, students will be able to:
- Identify common security threats.
- Describe the methods by which you can mitigate these common security threats.
- Describe the different methods of encryption.
- Describe how Windows firewall can secure the device.
- Describe the benefits of using IPSec.
- Describe the different features of Windows Defender.
- Describe the benefits of using AppLocker.

Module 10: Supporting the Windows 10 Environment

- This module will cover the Windows 10 architecture and common environments. Students will be introduced to the various tools used in maintaining Windows. This module will also discuss methodologies for effectively troubleshooting issues and how to proactively manage and optimize Windows 10.

Lessons

- Windows Architecture
- Support and Diagnostic Tools
- Monitoring and Troubleshooting Computer Performance

Lab: Monitoring Reliability and Performance

Lab: Monitoring Events

- After completing this module, students will be able to:
- Describe the Windows architecture.
- Describe key stages in troubleshooting.
- Describe the purpose and benefits of the various tools in Windows.
- Use monitoring tools to establish a performance baseline
- Optimize performance on Windows 10 clients.

Module 11: Troubleshooting Files & Applications

- This module helps students plan for file backup and recovery. Students will learn how to plan and configure data protection strategies and how to perform various file and system recovery methods. This module also includes common methods for troubleshooting application installation issues, compatibility issues, and resolving browser issues.

Lessons

- File Recovery in Windows 10
- Application Troubleshooting

Lab: Using File History to Recover Files

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- After completing this module, students will be able to:
- Describe the different methods of file recovery.
- Configure Windows 10 to support individual file and system recovery.
- Recover a device using the Reset This PC function.
- Solve application compatibility issues with the Application Compatibility Toolkit.
- Troubleshoot common browser issues.

Module 12: Troubleshooting the OS

- In this module, Students will learn how to troubleshoot startup and service issues related to the operating system. This module will teach the different startup and recovery options, and how to troubleshoot different Windows services.

Lessons

- Troubleshooting Windows Startup
- Troubleshooting Operating System Service Issues

Lab: Using Advanced Startup and Windows RE to recover from Boot Failures

Lab: Recovering Windows using Reset This PC

- After completing this module, students will be able to:
- Describe the various methods identifying and recovering from startup issues.
- Describe when to use the various advanced startup options.
- Identify and disable a failed service.
- Identify and mitigate common locked account scenarios.

Module 13: Troubleshooting Hardware and Drivers

- This module introduces hardware troubleshooting. Students will learn about driver management and how to troubleshoot devices. Students will also learn steps for troubleshooting system hardwareand external peripherals such as USB drives and printers, including diagnostic methods andremediation.

Lessons

- Troubleshooting Device Driver Failures
- Overview of Hardware Troubleshooting
- Troubleshooting Physical Failures

Lab: Troubleshooting Hardware by Using Windows Memory Diagnostics

Lab: Recovering Windows by using a Restore Point

- After completing this module, students will be able to:
- Troubleshoot and remediate driver issues.
- Troubleshoot Peripherals