Administering Azure DevOps Server 2022

ADS2022 | 3 Days

This three-day course provides students with the knowledge and skills to deploy, configure, and manage Microsoft Azure DevOps Server and related software components.

Course Objectives

At course completion, attendees will have had exposure to …

- ✓ Azure DevOps Server editions and components
- ✓ Supported topologies and environments
- ✓ Must-have administration tools
- ✓ Hardware and software requirements
- ✓ Required service accounts and permissions
- ✓ Installing Azure DevOps Server
- ✓ Configuring Azure DevOps Server
- ✓ Managing relevant SQL Server components
- ✓ Installing and using Visual Studio Team Explorer
- ✓ Planning and creating project collections
- ✓ Planning and creating projects
- ✓ Using and customizing work item processes
- ✓ Azure DevOps Server licenses
- ✓ Connecting and using Microsoft Excel
- ✓ Using the Azure DevOps Server web portal
- ✓ Git and/or TFVC version control systems
- ✓ Basic and advanced version control workflows
- ✓ Using code search
- ✓ Repository security and permissions

- ✓ Command-line and third party tools
- ✓ Configuring/using Azure Pipelines for builds
- ✓ Deploying and using Azure Pipelines agents
- ✓ Configuring agent pools
- ✓ Creating and queuing automated builds
- ✓ Configuring Azure Artifacts
- ✓ Configuring/using Azure Pipelines for releasing
- ✓ Creating a release pipeline
- ✓ Creating and deploying a release
- ✓ Strategies for upgrading and migrating
- ✓ Using the Azure DevOps Migration Tools
- ✓ Integrating systems with Azure DevOps Server
- ✓ High availability and scalability options
- ✓ Capacity planning and disaster recovery
- ✓ Backing up, restoring, and moving data
- ✓ Configuring and using the Analytics service
- ✓ Using PowerShell to manage Azure DevOps Server
- ✓ Customizing Azure DevOps Server
- ✓ Extending Azure DevOps Server

Who Should Attend

This course is intended for experienced administrators with a background in either software development or system administration. Team leaders, lead developers, and other accidental Azure DevOps Server administrators are also encouraged to take this course.

Prerequisites

Before attending this course, students should have experience or familiarity with:

- ✓ Windows Server 2016, 2019, 2022
- ✓ Windows security and networking basics
- ✓ SQL Server 2019, 2022, or Azure SQL

- ✓ Visual Studio 2017, 2019, or 2022
- ✓ Their organization's ALM/DevOps process and tools
- ✓ Reading and understanding C# and PowerShell code

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Modules

Module 1: Introduction to Azure DevOps Server
- ✓ Introduction to Azure DevOps Server
- ✓ Editions, components, and configurations
- ✓ Azure DevOps Server vs. Azure DevOps Services
- ✓ Azure DevOps Server support of ALM and DevOps
- ✓ Administrator responsibilities and tasks
- ✓ Hands-on lab

Module 2: Planning/Deploying Azure DevOps Server
- ✓ Planning the deployment
- ✓ System requirements, software, and accounts
- ✓ Installing and configuring Azure DevOps Server
- ✓ Troubleshooting
- ✓ Installing Visual Studio Community Edition
- ✓ Hands-on lab

Module 3: Configuring Azure DevOps Server
- ✓ Administrator roles and tools
- ✓ Understanding and managing project collections
- ✓ Understanding and managing projects
- ✓ Selecting a work item process
- ✓ Configuring and securing projects
- ✓ Renaming and deleting a project
- ✓ Hands-on lab

Module 4: Client Applications
- ✓ Azure DevOps Server Administration Console
- ✓ Visual Studio Team Explorer
- ✓ Web portal
- ✓ Command-line and third party tools
- ✓ Licensing and Client Access Licenses (CAL)
- ✓ Stakeholder (free) access level
- ✓ Hands-on lab

Module 5: Version Control
- ✓ Introduction to Azure Repos
- ✓ Overview of Git and/or TFVC (legacy)
- ✓ Integration with Visual Studio
- ✓ Basic and advanced Git and/or TFVC workflows
- ✓ Branching, merging, and resolving conflicts
- ✓ Controlling access via repository permissions
- ✓ Hands-on lab

Module 6: Building and Releasing
- ✓ Introduction to Azure Pipelines
- ✓ Configuring pipeline agents and agent pools
- ✓ Creating and queuing a build pipeline
- ✓ Monitoring and managing a build
- ✓ Running automated tests in a pipeline
- ✓ Measuring code coverage in a pipeline
- ✓ Practicing Continuous Integration (CI)
- ✓ Using YAML to create/configure a pipeline
- ✓ Introduction to Azure Artifacts
- ✓ Creating and using a private NuGet package feed
- ✓ Creating a release pipeline
- ✓ Creating and deploying a release

Module 7: Upgrading, Integrating, and Migrating
- ✓ Upgrading Azure DevOps Server
- ✓ In-place vs. migration upgrade
- ✓ Pre-production dry runs for complex upgrades
- ✓ Deprecated features in Azure DevOps Server
- ✓ Performing post-upgrade tasks
- ✓ Using the Azure DevOps Migration Tools
- ✓ Integration with other ALM/DevOps tools
- ✓ Understanding and using service hooks
- ✓ Migrating to Azure DevOps Services

Module 8: Advanced Administration
- ✓ Monitoring the health of Azure DevOps Server
- ✓ Web-based diagnostic tools
- ✓ Options for high availability and scalability
- ✓ Scaling up vs. scaling out Azure DevOps Server
- ✓ Moving/Splitting project collections
- ✓ Disaster recovery, backup, and restore
- ✓ Using PowerShell to manage Azure DevOps Server

Module 9: Customizing and Extending
- ✓ Customizing work tracking
- ✓ Creating and using an inherited process
- ✓ Using work item templates
- ✓ Extending Azure DevOps Server
- ✓ Using the Azure DevOps Server REST API
- ✓ Configuring and using the Analytics service
- ✓ Creating a custom report in Power BI

Course Designer

This course was designed by Richard Hundhausen, Microsoft's first Visual Studio ALM/DevOps MVP, Professional Scrum Trainer, and an experienced software developer. To see other developer courses, visit www.accentient.com.