

## Mastering Azure Repos

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### Course Summary

#### Description

Azure DevOps provides a set of cloud-hosted tools that software teams can use to quickly plan, develop, test, and deliver value in the form of working software. Azure Repos provide public or private Git repositories that enable better collaboration and cleaner code. In this course, students will work in teams, in a common team project, on a common codebase.

This course contains several modules, progressively explaining how to setup and use Azure Repos in basic and advanced ways in order to manage changes to code in a team's software development effort.

#### Topics

- Introduction to Azure Repos
- Git Concepts
- Visual Studio Integration
- Working with Azure Repos
- Mastering Azure Repos

#### Audience

This course is appropriate for all software developers who are using or considering using Azure Repos for Git version control.

#### Prerequisites

Some experience with version control is recommended. Experience with Git, Visual Studio, and C# are also helpful, but not required.

#### Duration

One day

## Mastering Azure Repos

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### Course Outline

- I. **Introduction to Azure Repos**
  - A. Azure DevOps overview
  - B. Azure Repos overview
  - C. Public vs. private repos
  - D. Creating, configuring, and securing repos
  - E. Hands-on
- II. **Git Concepts**
  - A. DVCS concepts and Git overview
  - B. Using Git from the command line
  - C. Creating/cloning a repository
  - D. Git commit and history
  - E. Basic Git workflows
  - F. Git for Windows
  - G. Hands-on
- III. **Visual Studio Integration**
  - A. Visual Studio Integration
  - B. Connecting-to a repository
  - C. Basic Git workflows revisited
  - D. Associating comments and work items
  - E. Viewing commit history
  - F. Ignoring files when committing
  - G. Visual Studio Code Integration
  - H. Hands-on
- IV. **Working with Azure Repos**
  - A. Annotating changes (for blame/praise)
  - B. Tagging
  - C. Editing commit history
  - D. Checkout to a previous version
  - E. Reverting to a previous version
  - F. Resetting to a previous version
  - G. Stashing changes
  - H. Branching and merging
  - I. Rebasing
  - J. Pull requests
  - K. Branch policies
  - L. Code reviews using pull requests
  - M. Hands-on
- V. **Mastering Azure Repos**
  - A. Git Hooks and Git extensions
  - B. Code Search
  - C. GitHub integration
  - D. Forking
  - E. Workflows (Git Flow, GitHub Flow)
  - F. Virtual File System for Git (VFS)
  - G. Repository limits
  - H. Hands-on