

AZ-400T01-A: Implementing DevOps Development Processes

Course Outline

Module 1: Getting started with Source Control

Lessons

- What is Source Control?
- Benefits of Source Control
- Types of Source Control systems
- Introduction to Azure Repos
- Migrating from Team Foundation Version Control (TFVC) to Git
- Authenticating to your Git Repos

After completing this module, students will be able to:

- Describe the benefits of using Source Control
- Migrate from TFVC to Git

Module 2: Scaling git for enterprise DevOps

Lessons

- How to structure your Git repo
- Git Branching workflows
- Collaborating with Pull Requests
- Why care about GitHooks?
- Fostering Internal Open Source
- Git Version
- Public projects
- Files in Git

After completing this module, students will be able to:

- Scale Git for Enterprise DevOps

Module 3: Implement & Manage Build Infrastructure

Lessons

- The concept of pipelines in DevOps
- Azure Pipelines
- Evaluate use of Hosted vs Private Agents
- Agent pools
- Pipelines and concurrency
- Azure DevOps and Open Source projects
- Azure Pipelines YAML vs Visual Designer
- Setup private agents
- Integrate Jenkins with Azure Pipelines
- Integration external source control with Azure Pipelines
- Analyze and integrate Docker multi-stage builds

After completing this module, students will be able to:

- Implement and manage build infrastructure

Module 4: Managing application config & secrets

Lessons

- Introduction to Security
- Implement secure and compliant development process
- Rethinking application config data
- Manage secrets, tokens, and certificates
- Implement tools for managing security and compliance in a pipeline

After completing this module, students will be able to:

- Manage application config and secrets

Module 5: Implement a mobile DevOps strategy

Lessons

- Introduction to Mobile DevOps
- Introduction to Visual Studio App Center
- Manage mobile target device sets and distribution groups
- Manage target UI test device sets
- Provision tester devices for deployment

- Create public and private distribution groups

After completing this module, students will be able to:

- Implement a mobile DevOps strategy