GTech Learn

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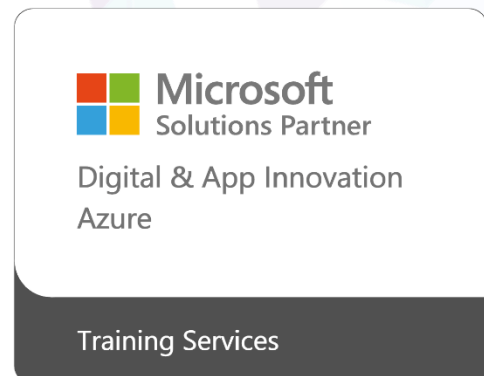
Microsoft Learning Partner

Course Contents

AZ-400: Designing and Implementing Microsoft DevOps solutions

Duration: **4 Days**	**Level**: **Advanced**	**Role**: **DevOps Engineer**
Certification: **Available**	**Public Schedules**: View Dates	**Private Delivery:** Reach Us

What's included?

- ✓ Learn from Microsoft Certified Trainer (MCT's)
- ✓ 24x7 Lab Access
- ✓ Official Courseware
- ✓ Exam Preps / Practice Tests
- ✓ Badges & Completion Certificate
- ✓ Discounted Exam Vouchers

Microsoft
CERTIFIED

DEVOPS ENGINEER

EXPERT
★★★

Microsoft
Solutions Partner

Digital & App Innovation
Azure

Training Services

Overview

This course provides the knowledge and skills to design and implement DevOps processes and practices. Students will learn how to plan for DevOps, use source control, scale Git for an enterprise, consolidate artifacts, design a dependency management strategy, manage secrets, implement continuous integration, implement a container build strategy, design a release strategy, set up a release management workflow, implement a deployment pattern, and optimize feedback mechanisms.

Audience Profile

Students in this course are interested in designing and implementing DevOps processes or in passing the Microsoft Azure DevOps Solutions certification exam.

Contents

Learning path 1: Get started on a DevOps transformation journey

- Introduction to DevOps.
- Choose the right project.
- Describe team structures.
- Choose the DevOps tools.
- Plan Agile with GitHub Projects and Azure Boards.
- Introduction to source control
- Describe types of source control systems
- Work with Azure Repos and GitHub

Learning Path 2: Development for enterprise DevOps

- Structure your Git Repo.
- Manage Git branches and workflows
- Collaborate with pull requests in Azure Repos.
- Explore Git hooks.
- Plan foster inner source
- Manage Git repositories
- Identify technical debt

Learning Path 3: Implement CI with Azure Pipelines and GitHub Actions

- Explore Azure Pipelines
- Manage Azure Pipeline agents and pools.
- Describe pipelines and concurrency
- Explore Continuous integration

- Implement a pipeline strategy
- Integrate with Azure Pipelines
- Introduction to GitHub Actions.
- Learn continuous integration with GitHub Actions
- Design a container build strategy

Learning Path 4: Design and implement a release strategy

- Introduction to continuous delivery
- Create a release pipeline.
- Explore release strategy recommendations
- Provision and test environments
- Manage and modularize tasks and templates
- Multi-stage YAML
- Automate inspection of health

Learning Path 5: Implement a secure continuous deployment using Azure Pipelines

- Introduction to deployment patterns
- Implement blue-green deployment and feature toggles
- Implement canary releases and dark launching
- Implement A/B testing and progressive exposure deployment.
- Integrate with identity management systems
- Manage application configuration data.

Learning Path 6: Manage infrastructure as code using Azure and DSC

- Explore infrastructure as code and configuration management
- Create Azure resources using Azure Resource Manager templates
- Implement Bicep
- Create Azure resources by using Azure CLI
- Explore Azure Automation with DevOps
- Implement Desired State Configuration (DSC)

Learning Path 7: Implement security and validate code bases for compliance

- Introduction to Secure DevOps.
- Implement open-source software
- Software Composition Analysis
- Static analyzers.
- OWASP and Dynamic Analyzers.

- Security Monitoring and Governance

Learning Path 8: Design and implement a dependency management strategy

- Explore package dependencies
- Understand package management
- Migrate, consolidating and secure artifacts.
- Implement a versioning strategy
- Introduction to GitHub Packages

Learning Path 9: Implement continuous feedback

- Implement tools to track usage and flow
- Develop monitor and status dashboards
- Share knowledge within teams
- Design processes to automate application analytics
- Manage alerts, Blameless retrospectives and a just culture.

About GTech Learn

Established in 2011 in the USA, GTech Learn is one of the leading IT training organizations in North America & South East Asia. Driven by its unique USPs, GTech Learn is spurring competition, meeting the unmet needs of customers, assisting in skills upgrade, and supplementing talent pools with its presence in the USA, Canada, Singapore and India. This is consistent with our vision to help our Learners with skills upgrade for enhanced career opportunities.

As a Microsoft Learning Partner, we offer a broad range of learning solutions across the full Microsoft technology stack that can be customized.

Since 2011, GTech Learn has been developing custom-fit learning solutions that involve creating and delivering maximum results.

We have successfully helped all types of businesses, government entities, and individuals. For this reason, GTech has chosen by Microsoft to deliver comprehensive learning programs around the globe.

With flexible learning options, state-of-the-art delivery methods, numerous language preferences, experienced instructors, and complete dedication to our students, GTech Learn has the capabilities to help students develop their Microsoft skill sets and achieve increasingly high standards of productivity while organizations of all sizes realize the full potential of their technology investments.
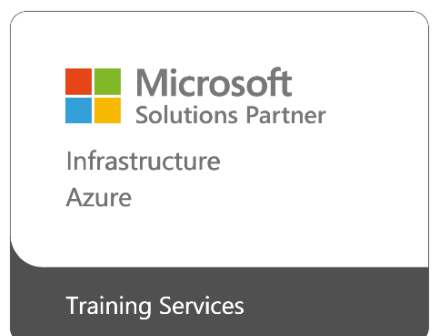
Our Accreditations with Microsoft

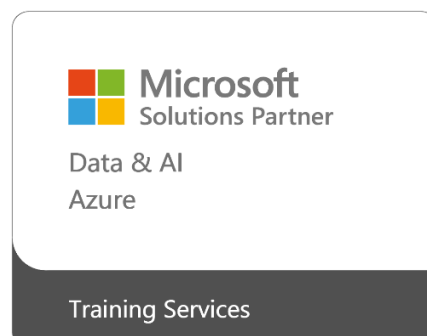| Microsoft Solutions Partner — Security — Training Services	Microsoft Solutions Partner — Modern Work — Training Services	Microsoft Solutions Partner — Business Applications — Training Services
Microsoft Solutions Partner — Infrastructure Azure — Training Services	Microsoft Solutions Partner — Digital & App Innovation Azure — Training Services	Microsoft Solutions Partner — Data & AI Azure — Training Services

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