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((•)) **AZ-400: DESIGNING AND IMPLEMENTING MICROSOFT DEVOPS SOLUTIONS**

Exam AZ-400: Microsoft Azure DevOps Solutions Crash Course

Published by **Pearson**

📊 **Intermediate**

Get up to speed with Azure DevOps, Agile, and pass your AZ-400 certification exam!

What you'll learn   **Is this live event for you?**   **Schedule**

DevOps is a set of practices in which developers, operations, and quality assurance personnel work together to automate software development and product delivery. Azure DevOps is Microsoft's cloud-hosted DevOps platform. This course prepares learners to pass Exam AZ-400, Microsoft Azure DevOps Solutions, and helps them earn their Microsoft Certified: Azure DevOps Engineer Expert role-based certification.
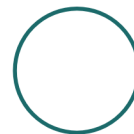

What you'll learn and how you can apply it

At course conclusion, you will be able to:

- Design a DevOps software development approach

- Implement DevOps software development processes

Dec 9
9am–2pm Central Standard Time

165 Spots Remaining

Sign up for a free trial!

or **sign in**.

Your Instructor

Tim Warner

Tim Warner has been a Microsoft MVP in Azure AI and Cloud/Datacenter Management for 6 years and a Microsoft...
Read more

in ✕ 🔗 🔍

- Develop continuous integration (CI) and continuous delivery (CD) pipelines

- Enable continuous feedback mechanisms

This live event is for you because...

- AZ-500 Azure DevOps certification candidates

- Current DevOps engineers who need to understand Microsoft's implementation

- Operations, development, and Q/A professionals who will use Azure DevOps for their software development projects

Prerequisites

The Microsoft Certified Azure Security Engineer Associate is an expert level certification. In addition to passing the AZ-400 exam, the learner also must have passed one of the following exams:

- AZ-104: Microsoft Azure Administrator

- AZ-204: Microsoft Azure Developer

While it would be helpful if the learner had already completed that prior study, doing so isn't strictly required. That is, one could pass AZ-400 first, and then either the Administrator or Developer second to complete their Azure DevOps Expert badge.

Course Setup

To follow along with the demonstrations and practice on his or her own, the learner should have the following environment available:

- Windows or macOS computer

- Web browser and Internet connection

- Microsoft account to create an Azure trial subscription (free)

- Microsoft Azure 30-day trial (free)

- A paid Azure subscription if they already used their trial

- Visual Studio (the free Community edition is fine)

- Visual Studio Code (free)

- Azure Command-Line Interface (CLI) (free)

- Docker Desktop software (free)

The course files will be available at Tim's GitHub repository.

Recommended Preparation

- Azure DevOps assumes your team embraces Agile methodologies; thus, a good prerequisite read would be Robert C. Martin's Clean Agile: Back to Basics.

- For preliminary DevOps information, there is DevOps: A Software Architect's Perspective by Bass, Weber, and Zhu

Recommended Follow-up

- Watch: Exam AZ-400: Designing and Implementing Microsoft DevOps Solutions (Video) by Paul Furlan

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Schedule

The time frames are only estimates and may vary according to how the class is progressing.

Module 1: Configure Processes and Communications (55 minutes)

- Configure activity traceability and work flow structure

- Identify metrics related to work flow

- Integrate Azure Pipelines and GitHub Actions with tracking tools

- Implement development traceability policies

- Integrate repository with Azure Boards

- Use custom dashboards in Azure Boards for communication

- Document projects using wikis and process diagrams

- Automate release documentation and notifications

- Q&A

- Break

Module 2: Design and Implement Source Control (55 minutes)

- Develop source control and authentication strategies

- Manage large files and optimize Git repositories

- Implement workflow hooks and branching strategies

- Configure and manage repositories, permissions, and recovery

- Q&A

- Break

Module 3: Create Build and Release Pipelines – Part 1 (55 minutes)

- Integrate pipelines with external tools

- Implement quality and release gates

- Design comprehensive testing strategies

- Implement UI testing and pipeline tool orchestration

- Q&A

- Break

Module 4: Create Build and Release Pipelines – Part 2 (55 minutes)

- Design package management and versioning strategies

- Develop pipeline trigger rules and job execution order

- Create reusable pipeline elements and deployment checks

- Q&A

- Break

Module 5: Design and Implement Deployments (55 minutes)

- Develop deployment strategies and paths

- Implement load balancing and feature flags

- Execute deployments using containers and scripts

- Q&A

- Break

Module 6: Maintain Infrastructure as Code and CI/CD Pipelines (55 minutes)

- Recommend configuration management technologies

- Implement and maintain infrastructure as code

- Monitor and optimize pipeline health and performance

- Q&A

- Break

Module 7: Plan Security and Compliance (55 minutes)

- Manage sensitive information in automation

- Automate security and compliance scanning

- Q&A

- Break

Module 8: Develop an Instrumentation Strategy (55 minutes)

- Configure DevOps environment monitoring

- Analyze application and infrastructure metrics

- Utilize Application Insights and Kusto Query Language

- Q&A; final wrap-up

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