



MICROSOFT TRAINING

Terraform Docker Cka Azure Pipeline Course

Master Terraform, Docker, and Azure Pipelines to build and deploy applications. Prepare for your CKA certification and manage Kubernetes effectively.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of modern DevOps practices with the "Terraform Docker CKA Azure Pipeline Course" from Microsoft. This intermediate-level program is meticulously designed to equip IT professionals with the essential skills to automate infrastructure, containerize applications, and streamline deployment workflows within the Azure ecosystem. You'll delve into the foundational principles of Infrastructure as Code (IaC) using Terraform, mastering how to provision and manage cloud resources efficiently and consistently.

The course then transitions into the world of containerization with Docker, teaching you how to package applications and their dependencies into portable, isolated units. You'll also gain a crucial understanding of Kubernetes orchestration principles, aligning with CKA (Certified Kubernetes Administrator) concepts, specifically how they apply to deploying and managing containerized workloads. The culminating aspect involves integrating these powerful tools with Azure Pipelines, enabling you to build robust Continuous Integration and Continuous Delivery (CI/CD) workflows that accelerate software delivery and enhance collaboration.

By completing this concise yet comprehensive 2-hour course, you will be able to design, implement, and maintain automated infrastructure deployments and application delivery pipelines on Azure. This hands-on knowledge will significantly boost your efficiency, reduce deployment errors, and position you as a key asset in any organization embracing cloud-native development and DevOps methodologies, ultimately enhancing your career trajectory in a rapidly evolving technological landscape.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft
Exam Code	CKA

COURSE CURRICULUM

01 Module 1: Infrastructure as Code with Terraform Fundamentals

- Introduction to Infrastructure as Code (IaC)
- Terraform basics: Providers, Resources, Variables
- Writing HCL (HashiCorp Configuration Language) for Azure resources
- Terraform commands: init, plan, apply, destroy
- Managing Terraform state locally

02 Module 2: Docker Essentials for Application Containerization

- Understanding containers vs. virtual machines
- Docker architecture and core components
- Creating Dockerfiles and building custom images
- Managing Docker containers: run, stop, remove
- Introduction to Docker Hub and container registries

03 Module 3: Kubernetes Basics & Azure Kubernetes Service (AKS) Overview

- Introduction to Kubernetes concepts: Pods, Deployments, Services
- Key principles for container orchestration (CKA context)
- Basic YAML manifests for Kubernetes objects

- Overview of Azure Kubernetes Service (AKS) as a managed platform
- Deploying a simple containerized application to Kubernetes principles

04 Module 4: CI/CD with Azure Pipelines for Cloud-Native Workloads

- Introduction to Azure Pipelines and Azure DevOps
- Building a CI pipeline for Docker image creation and pushing to ACR
- Implementing a CD pipeline for Terraform infrastructure deployment
- Automating application deployment to AKS using Azure Pipelines
- Integrating Terraform and Docker into an end-to-end CI/CD workflow

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Azure DevOps Engineer**
- > **Cloud Infrastructure Automation Specialist**
- > **Container Orchestration & CI/CD Lead**

FREQUENTLY ASKED QUESTIONS

Q: How does this course uniquely integrate Terraform, Docker, Kubernetes principles, and Azure Pipelines for end-to-end cloud-native solutions?

This course is specifically designed to bridge the gap between these critical DevOps tools, providing a holistic view of modern deployment. You will learn how to define and provision your Azure infrastructure using Terraform, containerize your applications with Docker, understand the fundamentals of orchestrating these containers using Kubernetes principles (relevant to CKA), and then automate the entire build, test, and deployment process through robust CI/CD pipelines in Azure Pipelines. The focus is on creating seamless, automated workflows from infrastructure provisioning to application deployment on a managed Kubernetes service like AKS.

Q: What are the recommended prerequisites for someone to get the maximum benefit from this intensive 2-hour course?

To get the most out of this accelerated program, participants should have a foundational understanding of cloud computing concepts, particularly within the Azure environment. Basic familiarity with command-line interfaces, scripting, and general software development lifecycle principles is highly recommended. While we cover the essentials of each technology, prior exposure to at least one of these tools (Terraform, Docker, or Azure DevOps) would be beneficial for quicker comprehension and deeper engagement with the integrated workflows.

Q: Upon completing this course, what specific skills will I gain that are immediately applicable to deploying and managing containerized applications on Azure?

Upon completing this course, you will be proficient in several key areas crucial for Azure-based containerized deployments. You'll be able to write basic Terraform configurations to provision Azure resources, create Docker images for your applications, understand how to set up and manage basic container deployments, and crucially, design and implement Azure Pipelines to automate the entire process. This includes building Docker images, pushing them to registries, and deploying both your infrastructure and containerized applications to Azure environments, including foundational steps towards deploying on Azure Kubernetes Service (AKS).

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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