Szkolenie: Google Cloud

Getting Started with Terraform for Google Cloud

DOSTĘPNE TERMINY

2026-07-17 | 1 dzień | Kraków / Wirtualna sala
2026-08-21 | 1 dzień | Warszawa / Wirtualna sala
2026-09-18 | 1 dzień | Kraków / Wirtualna sala
2026-10-16 | 1 dzień | Warszawa / Wirtualna sala
2026-11-20 | 1 dzień | Kraków / Wirtualna sala
2026-12-11 | 1 dzień | Warszawa / Wirtualna sala

Cel szkolenia:

This course provides an introduction to using Terraform for Google Cloud. It enables learners to describe how Terraform can be used to implement infrastructure as a code and to apply some of its key features and functionalities to create and manage Google Cloud infrastructure. Learners will get hands-on practice building Google Cloud resources using Terraform.

What you'll learn

- Define the business need for infrastructure as code and the benefits of using it in your environment.
- Explain the features and functionalities of Terraform.
- Use Terraform resources, variables, and output values to create Google Cloud infrastructure resources.
- Use Terraform modules to build reusable configurations.
- Explain Terraform state and its importance.

Audience

Cloud engineers, DevOps engineers, and individuals who want to start using Terraform to automate infrastructure provisioning with a focus on Google Cloud Platform

Plan szkolenia:

- Module 1 - Introduction to Terraform for Google Cloud

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- Topics
  - Introduction to IaC
    - What is infrastructure as code (IaC)?
    - Problems IaC can solve
    - Benefits of IaC
    - Provisioning versus configuration
    - Imperative versus declarative approach
  - Introduction to Terraform
    - Terraform overview
    - Terraform features
    - IaC configuration workflow
    - Terraform use cases
  - Using Terraform
    - How to use Terraform
    - Running Terraform in production
    - Installing Terraform
    - Authentication for Google Cloud
- Objectives
  - Define infrastructure as code.
  - Explain the features and benefits of using Terraform.
  - Explain the use case of Terraform for Google Cloud.
  - Describe how to use Terraform for Google Cloud.
- Activities
  - 1 quiz

- Module 2 - Terms and concepts
  - Topics
    - The Author phase
      - Terraform Directory structure
      - Introduction to HCL syntax
      - Resources
      - Variables
      - State
      - Modules
    - Terraform commands
      - terraform init
      - terraform plan

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        - terraform apply
        - terraform fmt
        - terraform destroy
    - Terraform Validator tool
        - Introduction
        - Why use the Terraform Validator tool
        - Validation workflow
        - Terraform Validator use cases
- Objectives
    - Explain the Terraform workflow.
    - Create basic configuration files within Terraform.
    - Explain the purpose of a few Terraform commands.
    - Describe the Terraform Validator tool.
    - Create, update, and destroy Google Cloud resources using Terraform.
- Activities
    - 1 lab
    - 1 quiz

- Module 3 - Writing Infrastructure Code for Google Cloud
    - Topics
        - Introduction to Resources
            - Resources overview
            - Syntax
            - Example
            - Refer a resource attribute
        - Considerations to define a resource block
        - Meta-arguments for resources
        - Resource dependencies
            - Implicit dependency
            - Explicit dependency
        - Introduction to Variables
            - Overview
            - Syntax to declare a variable
            - Syntax to reference and assign a value to a variable
            - Variables best practices
        - Introduction to output values
            - Output values overview

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        - Best practices
    - Terraform Registry and CFT
        - Introduction to Terraform Registry
        - Introduction to CFT
- Objectives
    - Declare the resources within Terraform.
    - Explain implicit and explicit resource dependencies.
    - Use variables and output values within the root configuration.
    - Explain Terraform Registry and Cloud Foundation Toolkit.
- Activities
    - 1 lab
    - 1 quiz

- Module 4 - Organizing and Reusing Configuration with Terraform Modules
    - Topics
        - Introduction to modules:
            - Why are modules needed
            - What is a module?
            - Example
        - Reusing configurations by using modules
            - Module sources
            - Calling a module into the source configuration
        - Using variables to parameterize your configuration
        - Pass resource attributes using output variables
        - Module use cases, benefits, and best practices
    - Objectives
        - Define Terraform modules.
        - Use modules to reuse configurations.
        - Use modules from the public registry.
        - Use input variables to parameterize configurations.
        - Use output values to access resource attributes outside the module.
    - Activities
        - 1 lab
        - 1 quiz

- Module 5 - Introduction to Terraform State
    - Topics
        - Introduction to Terraform state

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        - How information is stored in a Terraform state file
    - Ways to save a state file
    - Storing a state file in a Cloud Storage bucket
        - Issues when storing the Terraform state locally
        - Benefits of storing a state file in a Cloud Storage bucket
        - Process of storing a Terraform state file remotely in a Cloud Storage bucket
    - Terraform state best practices
- Objectives
    - Define Terraform state.
    - List the benefits of storing the state file remotely.
    - Explain how to store the Terraform state in a Cloud Storage bucket.
    - Explain Terraform state best practices.
- Activities
    - 1 lab
    - 1 quiz

Wymagania:

To get the most out of this course, participants should:

- Complete Google Cloud Fundamentals: Core Infrastructure
- Have basic programming skills and familiarity with using CLI
- Have general familiarity with Google Cloud

Poziom trudności

Certyfikaty:

The participants will obtain certificates signed by Google Cloud Platform.

Prowadzący:

Authorized Google Cloud Platform Trainer.

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