

Getting Started with Terraform for Google Cloud

Varighed: 1 Day Kursus Kode: GO8335 Leveringsmetode: Virtuel deltagelse

Beskrivelse:

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.

Products:

- Compute Engine
- VPC Networking
- Cloud Storage
- Terraform
- Cloud Foundation Toolkit

Updated August 2026

Virtuel deltagelse

Et V&C Select kursus indholder nøjagtig det samme som et almindeligt kursus. Før kursusstart modtager man kursusmaterialet. Dernæst logger man på kurset via internettet og ser via sin pc den selvsamme præsentation som de øvrige deltagere, man kommunikerer via chat med underviseren og de øvrige deltagere på kurset. Denne uddannelsesmodel er både tids-og omkostningsbesparende og kan være et oplagt alternativ til almindelig klasseundervisning, hvis man f.eks. har et begrænset rejsebudget.

Målgruppe:

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

Agenda:

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| ■ After this course participants should be able to: | ■ Use variables and output values within the root configuration. |
| ■ Define infrastructure as code. | ■ Explain Terraform Registry and Cloud Foundation Toolkit. |
| ■ Explain the features and benefits of using Terraform. | ■ Define Terraform modules. |
| ■ Explain the use case of Terraform for Google Cloud. | ■ Use modules to reuse configurations. |
| ■ Describe how to use Terraform for Google Cloud. | ■ Use modules from the public registry. |
| ■ Explain the Terraform workflow. | ■ Use input variables to parameterize configurations. |
| ■ Create basic configuration files within Terraform. | ■ Use output values to access resource attributes outside the module. |
| ■ Explain the purpose of a few Terraform commands. | ■ Define Terraform state. |
| ■ Describe the Terraform Validator tool. | ■ List the benefits of storing the state file remotely. |
| ■ Create, update, and destroy Google Cloud resources using Terraform. | ■ Explain how to store the Terraform state in a Cloud Storage bucket. |
| ■ Declare the resources within Terraform. | ■ Explain Terraform state best practices. |
| ■ Explain implicit and explicit resource dependencies. | |
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Forudsætninger:

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

Test og certificering

None

Yderligere Kurser:

None

Indhold:

Module 01: Introduction to Terraform for Google Cloud

- 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

Module 02: Terms and concepts

- The Author phase
- Terraform Directory structure
- Introduction to HCL syntax
- Resources
- Variables
- State
- Modules
- Terraform commands
- terraform init
- terraform plan
- terraform apply
- terraform fmt
- terraform destroy
- Terraform Validator tool
- Introduction
- Why use the Terraform Validator tool
- Validation workflow
- Terraform Validator use cases

Module 03: Writing Infrastructure Code for Google Cloud

- 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
- Best practices
- Terraform Registry and CFT
- Introduction to Terraform Registry
- Introduction to CFT

Module 04: Organizing and Reusing Configuration with Terraform Modules

- 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

Module 05: Introduction to Terraform State

- Introduction to Terraform state
- 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

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

training@globalknowledge.dk

www.globalknowledge.com/da-dk/

Global Knowledge, Stamholmen 110, 2650 Hvidovre