Getting Started with Terraform for Google Cloud

Category: Cloud Platforms | **Vendor:** Google Cloud

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

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.

About This Course

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.

Who Should Attend

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

Prerequisites & Entry Requirements

General Prerequisites:

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

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

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- 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.

Detailed Course Outline

Module 01 - Introduction to Terraform for Google Cloud

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:

Upon completion of this module, the student will be able to:

- 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.

Module 02 - Terms and Concepts

Topics:

- 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

Objectives:

Upon completion of this module, the student will be able to:

- 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.

Module 03 - 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

- Best practices

- Terraform Registry and CFT

- Introduction to Terraform Registry

- Introduction to CFT

Objectives:

Upon completion of this module, the student will be able to:

- 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.

Module 04 - 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:

Upon completion of this module, the student will be able to:

- 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.

Module 05 - Introduction to Terraform State

Topics:

- 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

Objectives:

Upon completion of this module, the student will be able to:

- 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., Introduction to Terraform for Google Cloud, Terms and concepts, Writing Infrastructure Code for Google Cloud, Organizing and Reusing Configuration with Terraform Modules, Introduction to Terraform State

Skills You Will 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.

Frequently Asked Questions

Q: What delivery options are available for Getting Started with Terraform for Google Cloud?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 1-day Getting Started with Terraform for Google Cloud course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Getting Started with Terraform for Google Cloud training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Getting Started with Terraform for Google Cloud?

Yes, we provide corporate training, dedicated training, and closed classes for Getting Started with Terraform for Google Cloud. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Getting Started with Terraform for Google Cloud, Architecture & Engineering, GSTGC, Google Cloud, vILT

Q: Why choose Nexus Human for Getting Started with Terraform for Google Cloud?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Getting Started with Terraform for Google Cloud training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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