Overview

This section walks you through the technologies you will require to finish the project work. Keep in mind that this is but an introduction to the technologies you will use should you become a cloud engineer. It is designed to highlight how modern, cloud-native tools can be used to enhance the cloud beyond its capabilities.

Exercise 1: IaaS

- Create a virtual machine
- Automate software installation using user data
- Create a virtual machine pool

Go to the exercise »

Exercise 2: Terraform

- Terraform basics
- Setting up a cloud provider connection
- Creating a virtual machine
- Using user data
- Creating a virtual machine pool

Go to the exercise »

Exercise 3: Containers

- Writing a Dockerfile
- Building a container image
- Pushing to a registry
- Deploying using docker-compose

Go to the exercise »

Exercise 4: Prometheus

- Prometheus basics
- Setting up Prometheus
- Setting up the node exporter

- Setting up service discovery
- Automating Prometheus deployment

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Exercise 5: Grafana

- Grafana basics
- Setting up Grafana
- Integrating Grafana with Prometheus
- Setting up alerts
- Automating Grafana deployment

Go to the exercise »

Exercise 6: API integration

- Creating a Grafana webhook microservice in Go
- Integrating the cloud API

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