Google Cloud

Architecting Hybrid Infrastructure with Anthos

Cloud Infrastructure learning path

Cloud Infrastructure

These tracks are designed for IT professionals who are responsible for implementing, deploying, migrating and maintaining applications in the cloud.

1 Google Cloud Platform Fundamentals: Core Infrastructure

2 Architecting with Google Kubernetes Engine

3 Architecting Hybrid Infrastructure with Anthos

Audience and Prerequisites

Target Audiences

- Cloud architects, administrators, and SysOps/DevOps personnel of GCP customer companies
- Individuals using Google Cloud Platform to manage and operate hybrid and cloud agnostic infrastructure

Prerequisites

- Google Cloud Platform Fundamentals: Core Infrastructure or equivalent experience
- Architecting with Google Kubernetes Engine or equivalent experience

Specialization Objectives

- Understand Anthos benefits
- Understand the core Anthos components, used across Hybrid environments
- Configure GKE On-Prem
- Understand service mesh benefits
- Install and configure service mesh with Istio
- Configure centralized telemetry using service mesh
- Configure traffic management and security using service mesh
- Install Anthos Config Management and use it to enforce policies
- Understand, define and manage multi-cluster service architectures and ingress using service mesh

Specialization Agenda

Module		Labs
1	Anthos Overview	● n/a
2	Managing Hybrid Clusters using Kubernetes Engine	● Managing Hybrid Clusters using Kubernetes Engine
3	Introduction to Service Mesh with Istio	● Installing Open Source Istio on Kubernetes Engine ● Installing the Istio on GKE Add-On with Kubernetes Engine
4	Observing Services using Service Mesh Adapters	● Observing Services using Prometheus, Grafana, Jaeger, and Kiali
5	Traffic Management with Istio and Envoy	● Manage Traffic Routing with Istio and Envoy

Specialization Agenda

Module		Labs
6	Managing Security Policies with Istio and Citadel	● Manage Policies and Security with Istio and Citadel
7	Configuring GKE for Multi-Cluster Operation with Istio	● Configuring GKE for Multi-Cluster Operation with Istio
8	Managing Policies in Kubernetes Engine using Anthos Config Management	● Managing Policies in Kubernetes Engine using Anthos Config Management

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- A clean environment with permissions

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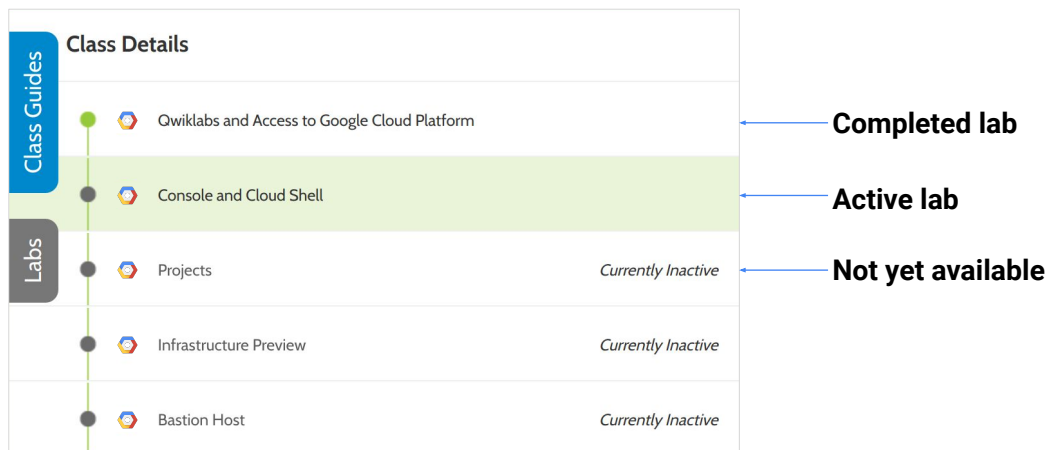
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Labs   **Lecture Notes**

00 Welcome to Networking in Google Cloud Platform

01 Google Cloud VPC Networking Fundamentals

02 Controlling Access to VPC Networks

03 Sharing Networks across Projects

04 Load Balancing

End of class: Materials

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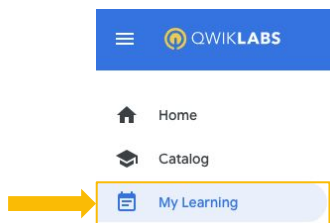
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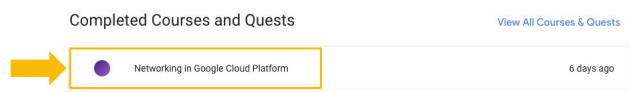
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