

GOOGLE CLOUD PLATFORM TRAINING COURSE CONTENT

Section 1: Introduction to GCP

Topics

- What is Cloud Computing?
- GCP – Overview
- Compute Service – Compute Engine, App Engine, GKE
- Networking Overview
- Storage Overview
- Databases – Overview
- Big Data – Overview
- Tools and others - Overview

Real time practical

- Create New GCP account
- Navigate through Web Console - Services

Section 2: GCP Interfaces and Development Tools

Topics

- Manage GCP with web console
- Manage GCP with command line
- Gcloud sdk installatation
- Explain gcloud, gsutil, and other Command-Line Tools
- Explain Resource hierarchy & Billing

Real time practical

- Getting started with Web Console – Billing, projects, etc
- How to use Cloud Shell and gcloud

Section 3: Networking – VPC

Topics

- Explain Regions, Zones, and Edge Locations
- Virtual Private Cloud
- Cloud Load Balancing
- Virtual Private Network

Real time practical

- Networking fundamentals

Section 4: Security & Identity – IAM

Topics

- IAM – Overview
- Service account & keys
- Identity Aware Proxy (IAP)

Real time practical

- Creating Service account
- Creating IAM roles

Section 5: Compute Engine

Topics

- Virtual Machines
- Machine Types

- Compute Options
- Disk options
- Instance groups, templates, Auto-scaling, etc

Real time practical

- Launch an Instance
- Auto-scale with instance groups
- Creating Snapshot & images

Section 6: Storage & Database Services

Topics

- Cloud Storage
- File store
- Cloud SQL
- Cloud Spanner
- Cloud Big Table

Real time practical

- Create a Cloud Storage Bucket
- Cloud SQL usage

Section 7: Google App Engine

Topics

- Explain App Engine

Real time practical

- Deploying an application in App Engine

Section 8: Kubernetes – GKE

Topics

- Microservices architecture
- Containers
- Docker
- Google Kubernetes Engine (GKE)

Real time practical

- Container registry
- Create a GKE cluster
- Deploying an application in GKE

Section 9: Bigdata Solutions

Topics

- BigQuery
- Dataproc
- BigTable
- Dataflow
- Pub/Sub

Real time practical

- Dataflow with Pub/Sub (or) BigQuery

Section 10: Advanced Networking Topics

Topics

- Load balancing
- VPN

Real time practical

- Load balancing http traffic
- Build a High-throughput VPN

Section 11: Management Tools (StackDriver)

Topics

- StackDriver logging
- StackDriver Monitoring

Real time practical

- Cloud Logging on Kubernetes Engine

Section 12: GCP Cloud Migration

Topics

- Migrate for Compute Engine

Section 13: DevOps in GCP

Topics

- Jenkins with GCP
- Cloud Source Repository
- CI/CD with GCP
- Cloud Build

Section 14: Few other Services

Topics

- Cloud functions
- Cloud run
- Cloud VMware Engine



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