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# Google Certified Cloud Architect Professional Training Certification

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## About the Program

This certification is designed by industry professionals to target efficient teaching of the skills required for Professional Cloud Architect certification, which includes designing, building, and managing dynamic solutions to drive organizational objectives using Google Cloud technologies.

Cloud Computing leads to the on-demand offering of various IT and computer system resources through the internet. This Certification will help you be an expert and skilled individual in the cloud computing field. It includes and covers advanced strategies to teach new learners through modern technologies.

## Key Training Features

-  Ask Questions Real-Time and Interact with the Trainer Live
-  Learner assistance and support - 24x7x365
-  Flexible classes
-  High-quality content created by industry experts
-  Professionally designed Student Training Material
-  High-Quality Audio-Video Lectures
-  Lifetime Training Access
-  Assessments



## Training Options

- Self-paced Training
- Live Virtual Classes
- One on One Training

## Why Google Certified Cloud Architect?

- Higher Paying Opportunities
- Gain Knowledge and Credibility
- Stand Out Among the Ordinary
- Knowledge of Cloud Architect Best Practices
- Better Career Growth & Job Opportunities
- Better ROI with Flexibility
- Sharpen your IT Skillset

## What will you learn?

- Compute Engine
- Data Storage Services
- Google Kubernetes Engine
- Google App Engine
- Load Balancing
- Networking and VPCs
- IAM
- Logging, Monitoring, and Debugging
- Managed Instance Groups
- Deployment, Security, and Billing



## Career Option with Salary Compensation

### Cloud Solutions Architect

- Minimum - \$80,000
- Avg Salary - \$126,000
- Maximum - \$162,000

### Cloud Software Engineer

- Minimum - \$76,000
- Avg Salary - \$100,000
- Maximum - \$147,000

### Enterprise architect

- Minimum - \$78,000
- Avg Salary - \$134,000
- Maximum - \$143,000

### Cloud Solutions Engineer

- Minimum - \$61,000
- Avg Salary - \$87,000
- Maximum - \$137,000

### Cloud Engineer

- Minimum - \$82,000
- Avg Salary - \$87,000
- Maximum - \$115,000



## Target Audience

- Administrator
- Architect
- Automation Engineer
- Consultant
- Engineer
- Security Analyst
- Reliability Engineer
- Infrastructure Engineer
- Security Engineer
- Security Architect



## Prerequisites

There are prerequisites for the Google Certified Cloud Architect; Wissenhive recommends at least having one of the following:

- Familiar with the cloud computing fundamentals
- 1+ years designing and managing solutions (Google Cloud)
- 3+ years of industry experience



## Course Details

Wissenhive's professional Cloud Architect certification course will allow you to enhance skills and gain the knowledge required in planning, designing, managing, and provisioning a cloud solution architecture, designing for compliance and security, optimizing and analyzing business and technical processes.

In this course, apprentices learn about the detailed concept of IT security, which includes

- Solidify your foundations in planning, designing, managing, and provisioning a cloud solution architecture.
- Embedding an individual's ability to control and identify the flow of data with real-world examples/situations.
- Understanding numerous GCP decision flowcharts that applies to different cases.
- Assessing various architectural environments (lens of the official GCP case studies)
- Understand making effective trade-offs between multiple options.
- Determining, planning, executing, and evaluating the architectures that you designed complaint, secure and reliable.)



## Course Curriculum:

### 1. Cloud Computing Introduction

- In-depth Introduction
- Computing Services and Challenges
- Cloud Benefits
- Why Google Cloud
- Google Cloud Certifications

### 2. Google Cloud Introduction

- Create GCP Account
- Console Walkthrough
- Cloud Services
- Regions and Zones
- GCP Interfaces
- Cloud SDK Installation and Setup
- Cloud Shell



## Course Curriculum:

### 3. Resource Management and IAM

- What is Resource
- Resource Hierarchy and Benefits
- Project Management
- Billing Account and Payment Section
- Billing Account Management
- Billing Export
- Budget And Alerts
- IAM Introduction
- Pricing Calculator
- What is Member and Service Account
- What are Permission And Role
- Create Custom Role & Assign to IAM Member
- Assign Role to Member
- Service Account Creation
- What is Policy
- What is Audit Log



## Course Curriculum:

### 4. Compute Services

- Machine Types & CPU Platform
- Compute Engine Features and Use Case
- Machine Type - Demo
- What is GPU
- Disk Types
- What is Image
- Custom Image from Disk
- Create Disk from Image
- What is Snapshot
- Create Snapshot Schedule
- Manual Snapshot Creation
- Networking
- Sole Tenant Node
- Startup Script, Preemptive VM, On Host Maintenance & Auto Restart
- VM Creation and Start Web Server Inside VM
- Instance Template
- VM Creation Flow With Startup Script & Instance Template
- VM creation using Instance Template
- Managed Instance Group
- Stateless vs. Stateful Managed Instance Group
- VM Creation using Managed Instance Group
- Rolling Update in MIG
- Rolling Update Configuration in MIG
- Pricing & Discount



## Course Curriculum:

### 5. Load Balancer

- Detailed introduction
- Network Load Balancer
- Load Balancer Categorization
- 3 Tier Application Load Balancing
- Global External Load Balancer
- Load Balancer Data Model
- TCP/SSL Proxy Load Balancer
- Health Check
- Load Balancing Mode
- Load Balancer Decision Tree
- Global external HTTP Load Balancer

### 6. Google App Engine

- App Engine Introduction and Comparison
- App Engine Application Components
- App Engine Features
- Microservice Architecture
- Deploy Service in Standard Environment
- Create App Engine Application
- Flexible Environment
- Standard Environment
- Traffic Migration
- Traffic Splitting
- Application Security
- Application Scaling
- App Engine Pricing
- Firewall Configuration and Security Scanner
- Service Description File - App.Yamlr



## Course Curriculum:

### 7. Google Kubernetes Engine

- GKE Introduction and Architecture
- Node Pool and Node Image
- Create Kubernetes Cluster
- Service
- Labels & Selector
- Location Based Cluster Type
- Volume Storage Options
- Demo - Deploy WordPress Docker Image
- Load Balancer
- Autoscaling
- GKE Other Features
- Load Balancer
- IaaS Vs PaaS
- Anthos

### 8. Serverless Computing - Cloud Function and Cloud Run

- Cloud Function Introduction
- Use Cases of Cloud Function
- How Cloud Function Works
- Cloud Function Pricing
- Cloud Run Introduction
- Create Cloud Function
- Create Cloud Run Service



## Course Curriculum:

### 9. Networking

- Private and Public IP
- CIDR
- VPC Networking and VPC Features
- Subnet Introduction
- Default VPC
- Custom VPC With Custom Mode
- Custom VPC With Auto Mode
- IP Address
- VPC Types
- How to Create Firewall Rule
- Firewall Rules Introduction
- Firewall Rule
- How to Create Firewall Rule
- Reserved IP Address
- Premium and Standard Networking Services
- VPC Routes
- Shared VPC
- VPC Peering
- VPC Network Peering
- Nat Gateway Introduction
- Nat Gateway
- Bastion Host
- VPC Pricing
- Cloud Interconnect
- Hybrid Networking Introduction
- Connection Peering
- Cloud Interconnect
- Direct Peering Vs Direct Interconnect
- Cloud Router
- Cloud VPN



## Course Curriculum:

- Choosing Hybrid Connection
- Cloud CDN
- Cloud DNS
- Networking Recap

### **10. Cloud Storage**

- Storage Solution Introduction
- Cloud Storage Introduction
- Bucket & Object
- Storage Classes
- Object Lifecycle Rules
- Object Copy, Move & Delete Operation
- Data Security - Access Control
- Signed URL
- Object Versioning
- Object Change Notification and Audit logging
- GCS Fuse
- Data Encryption Keys
- Data Transfer Options
- Consistency Model



## Course Curriculum:

### **11. Cloud SQL**

- Cloud SQL Introduction
- Cloud SQL Features
- Create Database and Tables
- Import Database
- Cloud SQL Proxy
- High Availability
- Create Read Replica
- Backup & Restore
- Cloud SQL Pricing

### **12. Cloud Spanner**

- Cloud Spanner Introduction
- Comparison With Other Database
- Cloud Spanner Instance
- Use Cases
- Create Database in Cloud Spanner
- Interleave Table
- Cloud Spanner Architecture



## Course Curriculum:

### 13. No SQL Databases

- Cloud Datastore Introduction
- Use Firestore in GCP
- Features & Use Case
- Bigtable Architecture
- Bigtable Instance Creation
- Bigtable Application Profile
- Schema Design Considerations
- BigQuery Introduction
- BigQuery Create Own Dataset
- BigQuery Pricing
- BigQuery IAM Integration

### 14. Big Data in GCP

- Dataproc Introduction
- Dataproc Job Submission
- Dataproc Cluster Creation
- Best Practises in Dataproc
- Apache Beam Key Concepts
- Dataflow Introduction
- Dataflow vs Dataproc
- Demo - Dataflow
- Cloud Pub/Sub Introduction
- Topic & Subscription Creation
- Pub/Sub Concepts
- Publish Message



## Course Curriculum:

### **15. Cloud Operation Suite**

- Logging And Monitoring Introduction
- Cloud Logging
- Cloud Logging Concepts
- Log Metrics
- Metrics Explorer
- Cloud Monitoring Introduction
- Metrics Explorer
- Uptime Check
- Other Operation Tools

### **16. IAC, CI/CD and Machine Learning**

- IAC - Deployment Manager
- CI/CD Pipeline
- Deployment Manager
- Machine Learning

### **17. Other Services in Google Cloud**

- API Management with Apigee
- Cryptography & KMS
- Caching with Memorystore

### **18. Case Studies**

- EHR Healthcare
- TerramEarth
- MountKirk Games
- Helicopter Racing League
- Dress4Win - Old
- MountKirk Games - Old
- TerramEarth - Old



Contact us

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If you have any further questions or would like to chat with us, give us a call

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