# Google Cloud Professional Cloud Architect Certification

**Modality: On Demand**

**Duration: 16 Hours**

## About this course:

This course has been designed as an exam prep boot camp aimed to prepare you for the Google Cloud Certified Professional -Architect Exam. It is an answer to all your needs when it comes to preparing and acing the Google Cloud Certified Professional -Architect Exam.

The course will begin with a class on the fundamental principles and provide an overview of the subject matter to ensure that everyone attending the course is on the same page. The principles which will be laid down in this part will be key in preparing you to clear this vigorous exam.

Next the themes of the GCP platform which are the most essential for the exam will be covered . Examples include migrating virtual machines, assessing and determining data storage requirements properly, carrying out analysis of performances and monitoring the GCP Platform.

The one key thing to remember is that this exam is not like other exams. Even if you ask an AWS certified professional, they would agree that this is a rigorous process and a very challenging exam. Google has a different approach towards cloud and traditionally is more aimed at developers. Hence, a person who may not be familiar with the terminologies and technicalities of the Google development field, will be baffled by many of the techniques of Google cloud. This exam does not aim to asses aspirants on the basic knowledge of Cloud, instead it is interested in testing the aspirant's knowledge of the particular practices at Google and the ideas Google believes in. Even though many questions can be answered in multiple ways and while all of the answers might be technically correct, it is the approach which aspirants will be marked upon.

To summarize, this is an abstract exam and cannot be described as being very concise or to the point. Hence, proper prep and training is needed to understand what is being asked and what is expected to be in the answer. This course aims to help students understand this concept and be able to take this exam in the right manner.

The lectures in this course span an average of 5-12 minutes. The instructions are brief and to the point. The lectures are complemented by several demos which help illustrate the points you need to know in the GCP interface, before attempting this exam.

**What does the GCP boot camp provide?**

- Exam oriented content with an aim to help you clear the exam and get your certification
- A drastic reduction in the time needed to prepare for the exam
- Over thirty lectures which cover every subject matter questioned in the exam.
- A careful selection of links to references and study material.
- For any further queries, contact information for a responsive customer service.

A  separate online practice exam can also be used to check preparedness for a small charge

## Course Objective:

 Upon completion of this course, the participant should have an advanced skill set and a sound working knowledge of the following principals while also be able to;

- Understand thoroughly the fundamentals of the Google Cloud Platform needed for the exam.
- Fully prepare for the exam
- Learn the skills of Virtual Networking
- Learn the skills needed for Virtual machines
- Learn how to manage resources
- Learn how cloud identity and access management work
- Understand data services
- Gain the skill needed to automate infrastructure
- Learn about containers
- Gain the skills needed to design and implement better security protocols
- Gain the skills needed for Application development
- Take the exam with confidence and clear it
- Learn how to migrate to GCP efficiently and smoothly
- Sift through the available career advice

## Audience:

This particular course is aimed at the following audience;

- Those wishing to learn more about the the Google Cloud Platform Certified Professional Exam - Architect
- Thos who wish to gain a better understanding of the Google Cloud Platform
- Those who wish to prove their knowledge of the Google Cloud Platform

## Pre-Requisites:

The following  prerequisites are absolutely necessary to be eligible to take this course;

- Access to a Google Cloud Platform account for example like a free trial
- Have at least an experience of one yearf or more using Google Cloud Platform
- A curiosity and wish to learn more about the GCP.
- An experience working with GCP and a fundamental knowledge of the GCP console
- This is neither a tutorial exam, nor is it similar to the AWS exam. Hence do not attempt to take the above mentioned exam if you do not possess hands on working experience with GCP

## Course Outline:

**Introduction to the Google Cloud Platform Architect Exam Prep Course**

- Instructor Welcome Aboard!

- What this course will cover
- Course Prerequisites to be successful
- What are the Google Cloud Platform Certifications? GCP Certified
- What is a Google Cloud Platform Certified Architect?
- Cloud Architect Objectives Review

## Course Readiness

- Download Course Materials in PDF
- Signup for a GCP Free Tier
- Demo - GCP SDK & CLI
- GCP Pricing Calculator

## Introduction to Google Cloud Platform (GCP)

- Introduction to Google Cloud Platform
- Demo - GCP Console
- GCP Regions and Zones
- Demo on Quotas

## Hierarchy - Organizations and Projects

- Hierarchy Organizations, Projects, Folders and Resources
- Demo - GCP Projects
- Demo Projects gcloud commands
- Demo Projects CLI Settings

## Compute Services Overview

- Compute Options in GCP

## Compute Services - Compute Engine

- Compute Engine Overview Part 1
- Compute Engine Overview Part 2
- Compute Engine - Cost Efficiency
- Demo - Recommendation Engine
- Demo - Create A VM Instance
- Virtual Machines Console Walkthru
- Instance Groups
- Test Your Knowledge -Virtual Machines in GCP

## Compute Services - App Engine

- App Engine - PaaS Part 1
- App Engine - PaaS Part 2
- Demo - App Engine
- Demo and Whiteboard- App Engine A/B Testing

- Case Study Discussions - Compute

## Kubenetes Engine

- Kubenetes Engine (Containers) Part 1
- Kubenetes Engine (Containers) Part 2
- Kubenetes Engine Whiteboard
- GCP Container(Kubenetes) Engine Demo
- Kubenetes Engine Clusters Demo
- Test Your Knowledge - Container Resources

## Virtual Machines - Cloud Functions

- Cloud Functions
- Cloud Functions Demo

## Virtual Networking

- Virtual Networking with GCP
- Virtual Private Cloud
- IP Addressing
- Cloud VPN
- Demo - VPC
- Case Study Discussions - Networking
- Test your Knowledge - Virtual Networking

## Infrastructure as Code

- Cloud Marketplace
- Deployment Manager

## Hybrid Connectivity

- Cloud Interconnect/Partner Interconnect
- Peering
- Cloud VPN
- Whiteboard - Hybrid Connectivity
- Case Study Discussions - Hybrid Connectivity

## Identity Management

- Cloud IAM Overview
- GSuite Integration
- Cloud Identity Proxy
- Demo - Cloud Security Scanner
- Demo - Create Service Accounts
- Case Study Discussions - IAM
- Test Your Knowledge -Identity Management

## Managing Your Resources

- Projects In GCP
- GCP Billing
- Demo - GCP Billing
- Demo - Create Billing Alert
- Demo - GCP Calculator
- Test Your Knowledge -Managing Resources in GCP

## Google Stackdriver

- Google Stackdriver Must Know
- Cloud Data Storage Monitoring with Stackdriver
- Demo - Google Stackdriver Demo Must Know Cloud Architect
- Demo - Google Stackdriver Uptime Checks
- Demo - Google Stackdriver Install Monitoring Agent
- Demo - Google Stackdriver Metrics Explorer
- Demo - Google Stackdriver Install Logging Agent
- Demo - Google Stackdriver Workspaces

## Storage Options

- Storage Options Overview
- Cloud Storage Overview Part 1 of 2
- Cloud Storage Overview Part 2
- Cloud Platform Data Storage Security
- Cloud Storage Demo Part 1 of 2
- Cloud Storage Demo Part 2 of 2

## Database/Data Services

- Cloud SQL Overview
- Cloud SQL Demo
- Cloud Spanner 101
- Cloud Spanner or Cloud SQL for Use Case?
- Cloud Datastore
- Cloud DataProc
- DataProc or DataFlow
- BigQuery
- BigTable
- BigTable or BigQuery
- Test Your Knowledge - Data Services

## GCP Services Focused on DevOps

- Dev Ops on GCP Part 1
- Dev Ops on GCP Part 2
- Cloud Build Demo

- Cloud Source Repositories Demo
- GCP Source Code Management Whiteboard
- Whiteboard DevOps
- Case Study DevOps
- Test Your Knowledge - Developing and Deploying Applications

## Migrating Storage to GCP

- Should you use gsutil or Cloud Storage Transfer Service?
- Cloud Storage Transfer Service
- Cloud Storage Migrate Buckets from GCP Regions - Demo
- Gsutil
- GCSFUSE
- Offline Media Import / Export
- 3rd Party Migration Tools
- Whiteboard - Migrating VMS
- Whiteboard - Migrating Object Storage
- Case Study VM Migrate
- Test Your Knowledge -- MIgration

## Loadbalancing and AutoScaling

- Load Balancing
- Autoscaling
- Load Balancing Discussion
- Case Study Discussions - Load Balancing and Autoscaling

## Machine Learning and AI

- Machine Learning and AI

## Case Study Questions Review and Readiness Check

- Case Studies on Exam
- MountKirk Games - Case Study Questions
- Dress4Win - Case Study Questions
- TerramEarth - Case Study Questions

## Resources to help Study and Tips to Prepare!

- Important!!! GCP Best Practices WebPage
- Project Treehouse aka Cloud Solutions Reference Architecture Guide
- Rightscale Cloud Compare
- Finding Help with Stackoverflow
- Google Cloud Platform Sponsored Question Pool
- Bonus Lecture Practice Question Discount Link
- Using Qwiklabs to learn hands on (Cost involved)
- Tips For preparing - Console, White Papers and Resources to study for Exam

- Using Codelabs to Learn some GCP for FREE
- GCP Icon Library
- How to sign up for the exam
- Top Ten Things to Focus on the NEW Cloud Architect Exam 11/09/2018
- Comparing GCP to AWS Certifications
- Exam Question Preparation and Review

**Final Exam and Thank you**

- Thank you. Please contact me with any feedback. Let me know how you did on exam
- Practice Exam- Preparation for the exam