



GCP Associate & Professional Cloud Architect

GREENS TECHNOLOGYS

- ❖ Greens Technologys is the name that signifies the best training institute with placement in the field of software testing and programming in the IT sector. We are recognized as the best institute for software and languages course with the most advanced and high quality trainers. We are always being a channel for many students as well as IT professionals where we take them to the next level and as a result, they get placed in good MNC companies. Apart from the regular learning and training courses we offer language training by good experts to make you as a good masterpiece.
- ❖ Our core competency lies with the advanced and real time experience we have with the current real time experience we have with the current trends in the IT industry. We not only train, but also transform you into a perfect sculpture with our IT development courses for delivering a world class best proven technical solution for various companies.
- ❖ Greens Technologys is One Stop Solution for all those who are looking for training and learning programs of all types with placements.



ABOUT THE COURSE

- ❖ Greens Technologys is offering the comprehensive GCP certification training created by industry experts. The entire GCP training course is in line with the Google Cloud Certified Solutions Architect . You will learn various aspects of GCP like Cloud Storage, Virtual Private Cloud, Migrate service, Load Balancing, MIG's and more by working on hands on projects and case studies. You will implement AWS best practices in this training.



WHY GCP

-> About 900+ Partners and software integrations in GCP data and AI ecosystem. About 511,817 companies have started using Google Cloud Platform as platform-as-a-service-paas tool. - GCP

-> GCP Certified Solutions Architect can earn \$117,624 per year. - indeed.com

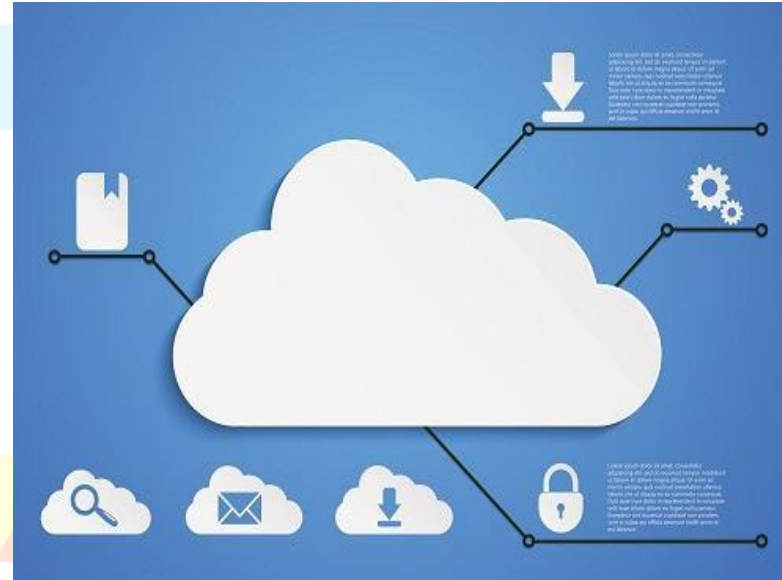
-> Today, cloud computing is no longer optional but critical to the success of some of the biggest enterprises on earth. Hence, getting the GCP training and certification means that you can open the doors to virtually unlimited job opportunities that are offering highly competitive salaries. Greens Technologys GCP course is completely oriented towards the practical applications, and hence it gives you a clear advantage.

COURSE OBJECTIVES

- > To design cloud Architecture.
- > To crack GCP Certification.
- > Additional Weightage to your resume.
- > GCP is available in Accenture, CTS, TCS, Wipro, HCL, Infosys, etc ...
- > From freshers to all experience candidates.


INTRODUCTION TO CLOUD COMPUTING

- > Introduction to Cloud and GCP services
- > GCP History
- > Iaas Vs Saas Vs Paas
- > Scope for GCP
- > Features in GCP



Google Cloud Regions & Zones

- > Multiple Data centers
- > Understanding Google Cloud Regions
- > Understanding Google Cloud Zones



39
REGIONS



118
ZONES



187
NETWORK EDGE LOCATIONS

AVAILABLE IN



200+
COUNTRIES AND TERRITORIES

COMING SOON! Google Cloud will continue expanding into the following regions: Mexico, Malaysia, Thailand, New Zealand, Greece, Norway, South Africa, Austria and Sweden.

Google Compute Engine

-> Machine Types & Images in GCE

-> Static Web Hosting on GCE

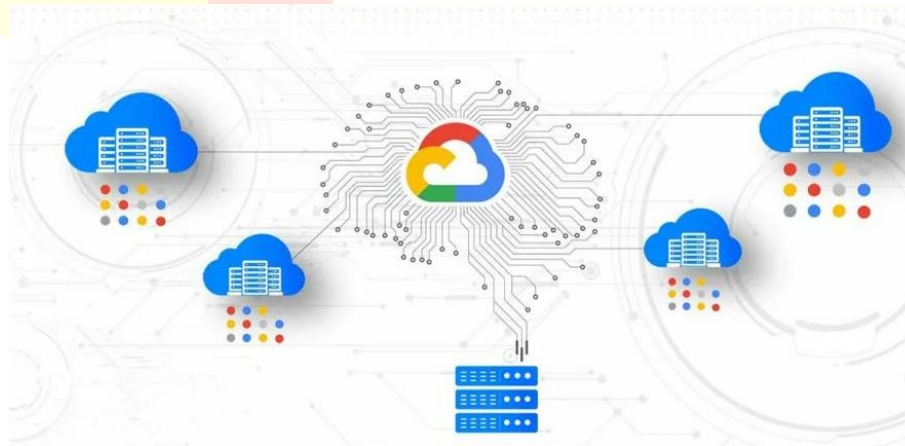
-> GCE in Advanced

- * STATIC-IP
- * STARTUP SCRIPT
- * INSTANCE TEMPLATES
- * Custom-Images
- * Identity & API Access(Service Account)

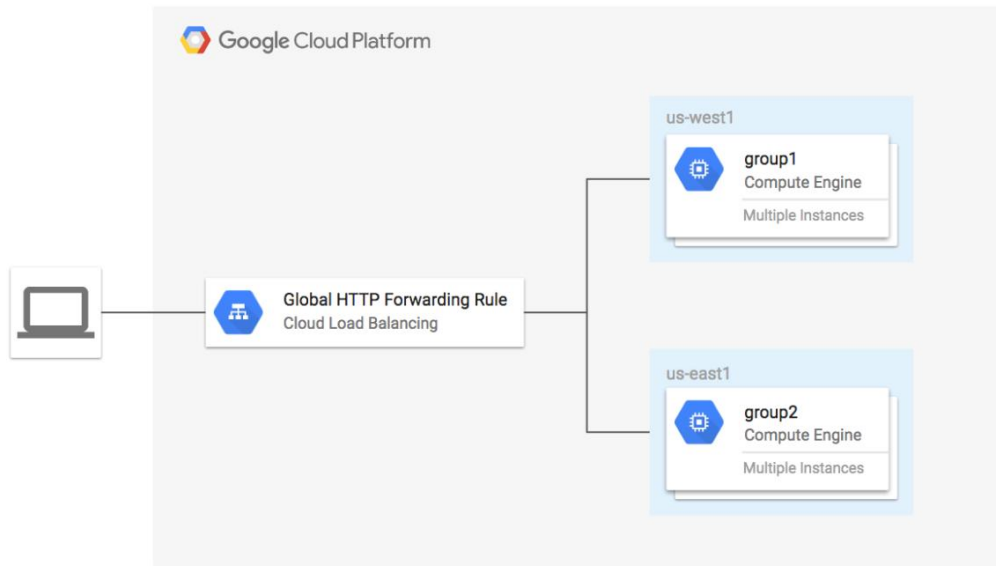


Compute Engine

Virtual Machines, Disks, Network



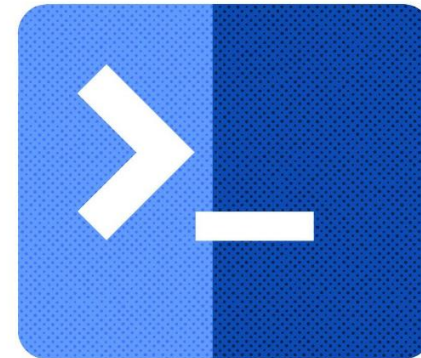
Instance Groups & Load Balancer



- > Managed Instance Group (MIG)
- > Managed Instance Group With Rolling Update
- > GC Load Balancer and its Protocols(HTTP,HTTPS,UDP & TCP)
- > Features of GC Load Balancer
- > Load Balancer Across MIG in Multiple Regions

Google Cloud Shell

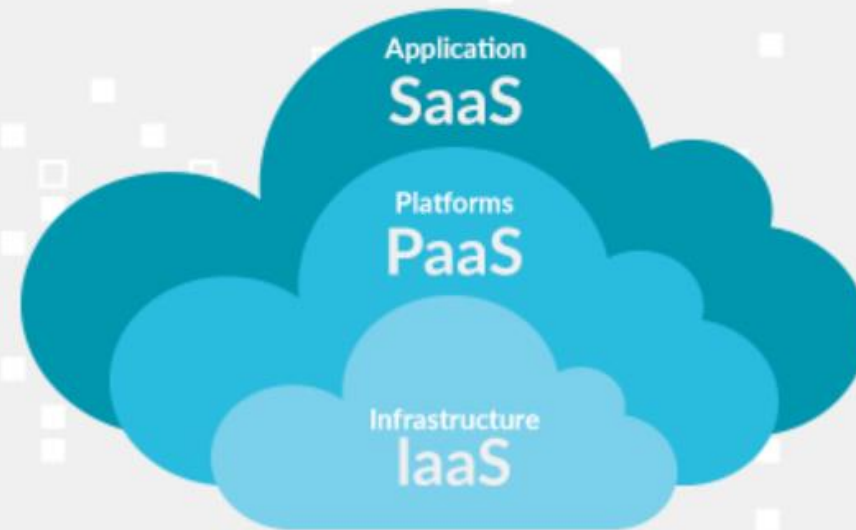
- > Connecting to GCP
- > Gcloud command structure & playing with services
- > List and Describe commands
- > Playing with compute instances
- > Playing with Instance Templates
- > Playing with Instance Groups
- > Managing Databases
- > Creation/Deletion/Modification of Resources
- > Deployment using cloudshell



Google Cloud Platform as Service (PAAS)

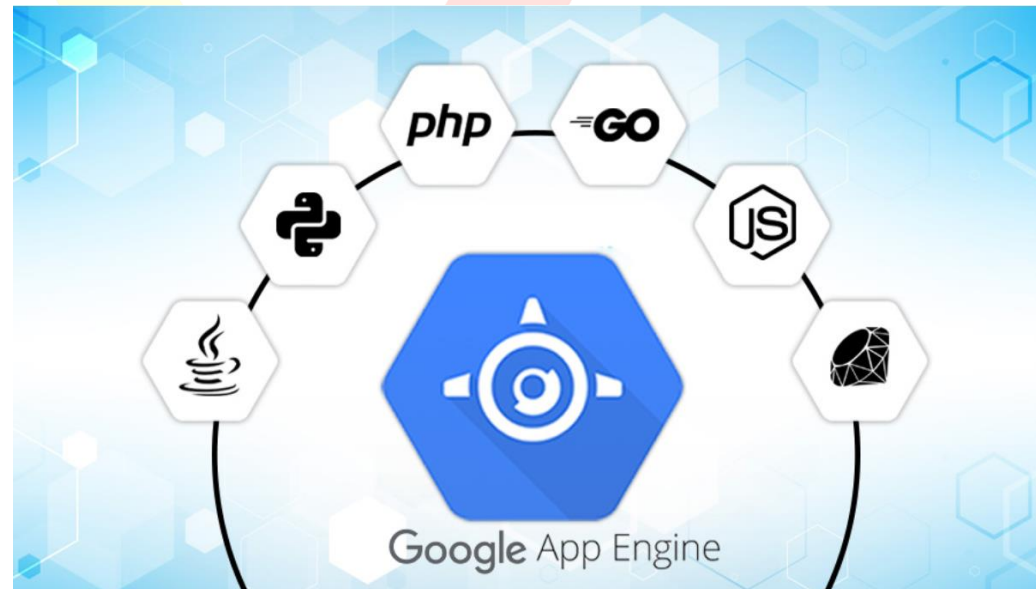
- > Understanding IAAS
- > Understanding PAAS

Comparing Cloud Models: IaaS - PaaS - SaaS



Google APP Engine

- > App Engine environments & component Hierarchy
- > App Engine - Cronjob
- > Playing with App Engine
- > Deploying new versions without Downtime
- > App Engine - Request Routing
- > Playing with App Engine Instances
- > Playing with App Engine Services and Versions



Google Cloud Containers & Container Registry

- > Understanding Cloud containers
- > Understanding Container Registry
- > Integration with CI/CD Tools



Container
Engine



Container
Registry

Google Cloud K8S Engine

- > Understanding Kubernetes components
 - Pods, Deployments, Replicaset, Service
- > Deploy Microservice to Kubernetes
- > Scaling the deployed Microservice
- > Scaling nodes for Kubernetes cluster
- > Setup Autoscaling for kubernetes cluster
- > Setup configmaps for Application configuration
- > Setup secrets for password configuration



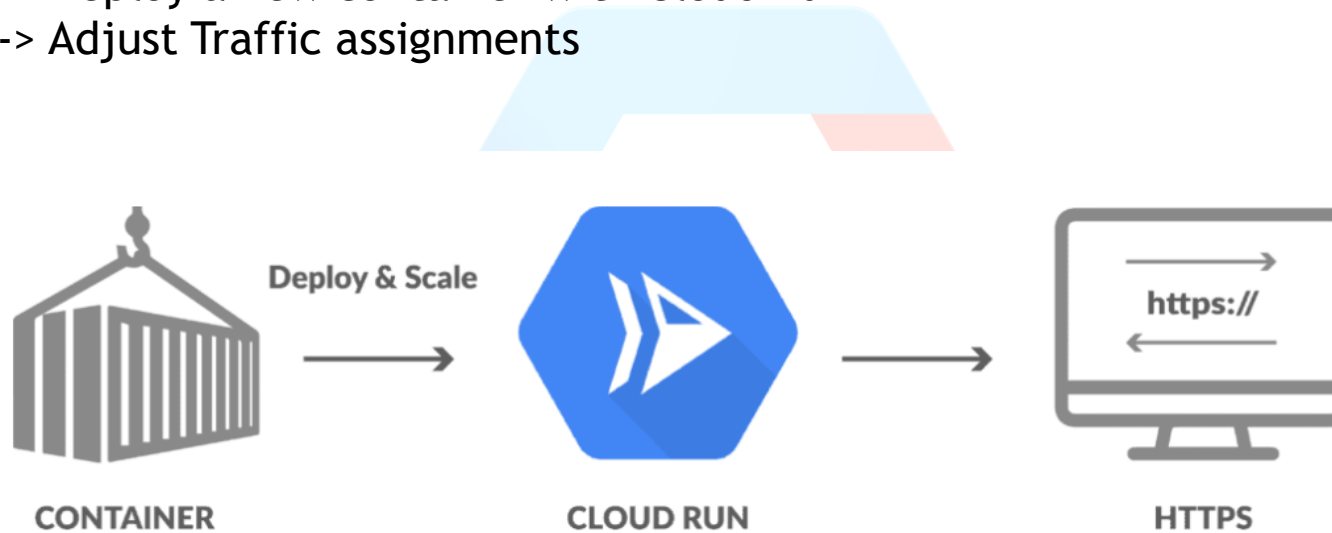
Google Cloud Functions & GEN 2

- > Understanding Cloud Functions
- > Understanding Events & Triggers
- > Deploying Node.js application triggered by event
- > Understanding Cloud Functions GEN 2
- > Demo of GEN 2
- > Deployment using gcloud-2



Google Cloud Run

- > Understanding Cloud Run
- > Deploy a new container with Cloud Run
- > Adjust Traffic assignments



Google Cloud KMS

- > Create and Manage Cryptographic Keys
- > Use of keys in applications and GCP Services
- > Understanding of its integration with GCP services



Key Management Service

Google Cloud Storage and its Types : Block Storage & File Storage

- > Storage Classes in GCP & its comparison
- > Features across Storage Classes
- > Types of Storages available in GCP
- > Playing with Machine Images - CLI
- > Playing with Disks - CLI
- > Comparison of Different Storages in GCP
- > Shared cloud Filestore
- > Signed URL & static website hosting



Google Cloud With Cloud IAM

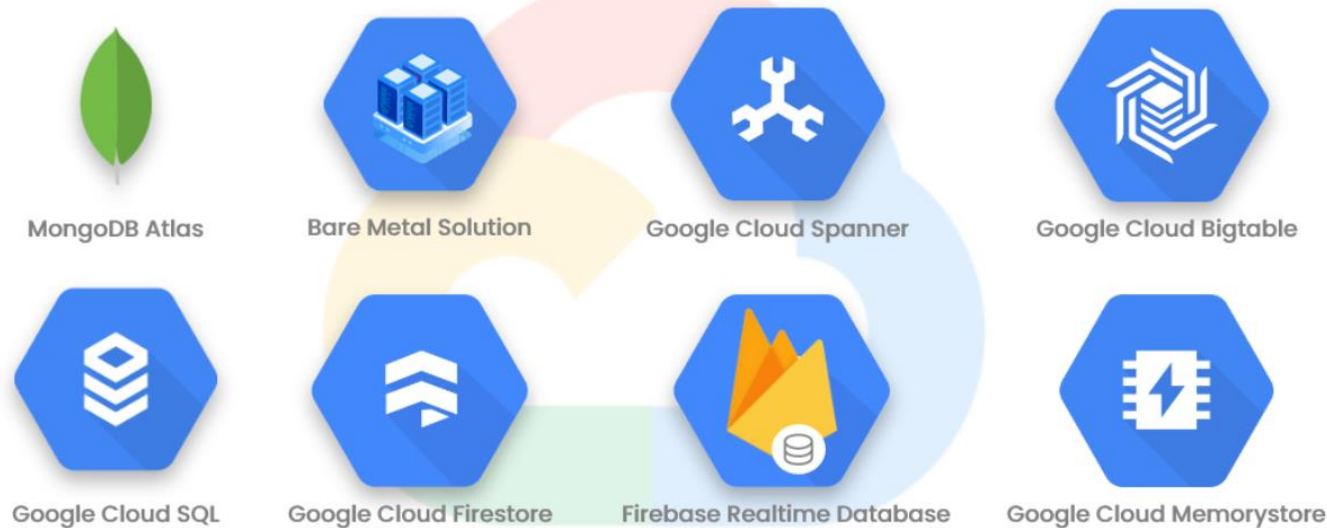
- > Understanding Cloud IAM
- > Creation of Roles & Policies
- > Understanding Predefined roles
- > Playing with IAM
- > Understanding Service Accounts in GCP
- > Service accounts Demo
- > ACL (Access Control Lists)

Identity and Access Management



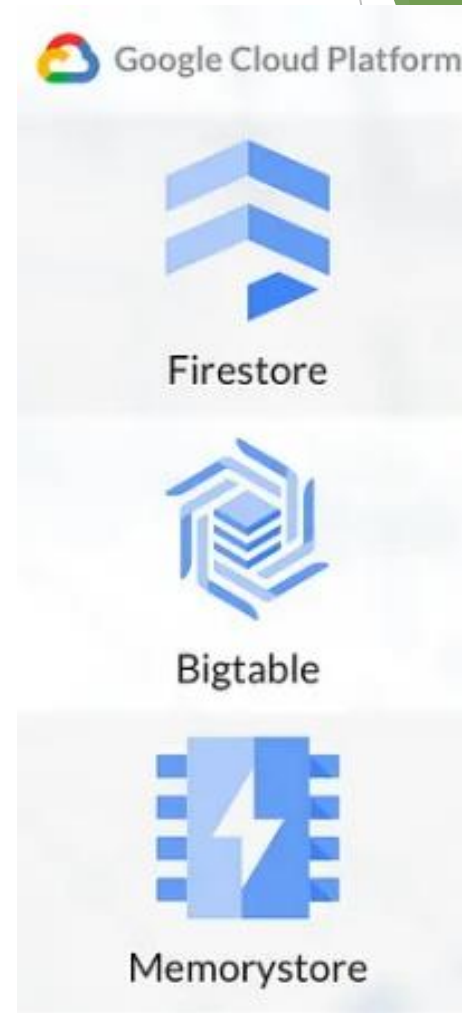
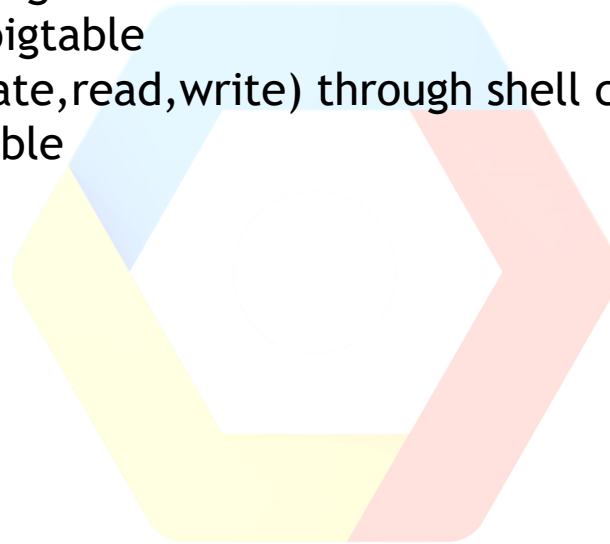
Google Cloud DataBases

- > Understanding Different Types of Databases in GCP
- > Database - snapshots
- > Demo for Disaster recovery in database (Transaction Logs, Add a standby)
- > Understanding RTO and RPO
- > Relational Databases
- > Cloud Pub/Sub
- > Cloud Memorystore



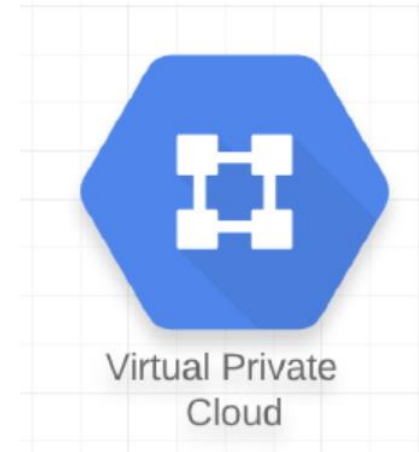
NoSQL DataBases in GCP

- > Understanding Cloud Datastore & Firestore
- > Understanding Cloud BigTable
- > Creating tables with bigtable
- > Table operations (Create,read,write) through shell commands
- > cli commands in BigTable



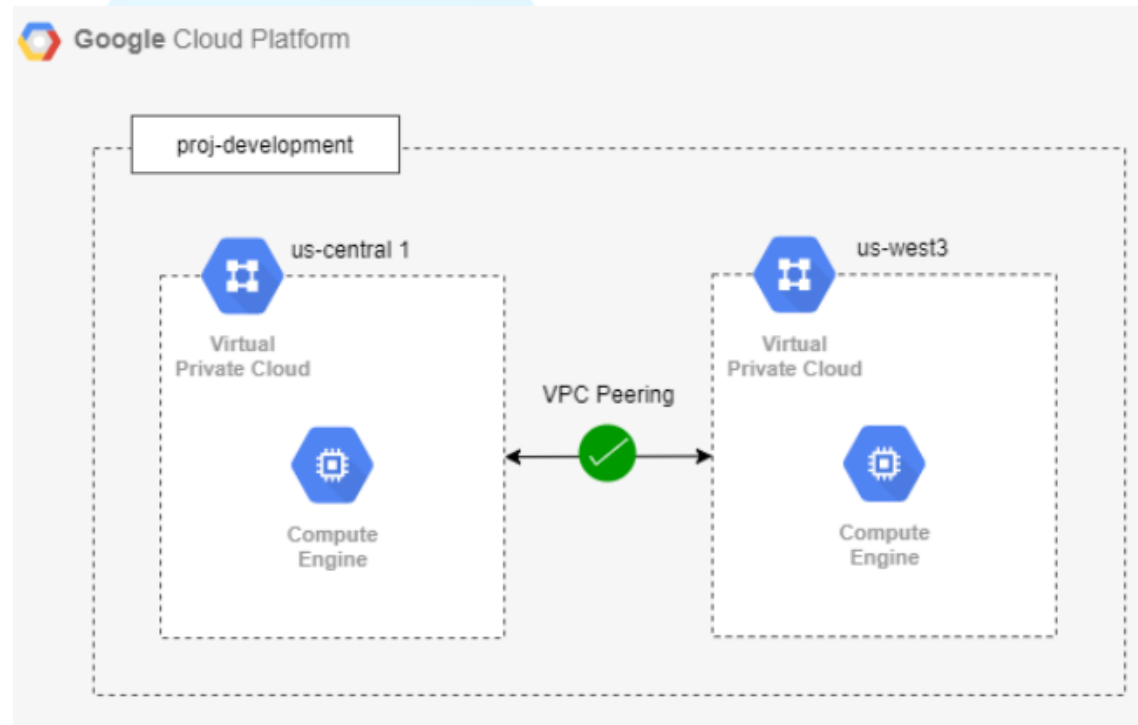
Google Cloud VPC

- > Understanding Google Cloud VPC & its scopes
- > Creating VPC's and subnets
- > CIDR blocks
- > Firewall Rules (Ingress & Egress Rules)



Google Cloud Peering

- > Understanding Google Cloud Peering
- > Connecting different VPC's from different projects
- > Cloud VPN
- > Cloud Interconnect
- > Direct Peering



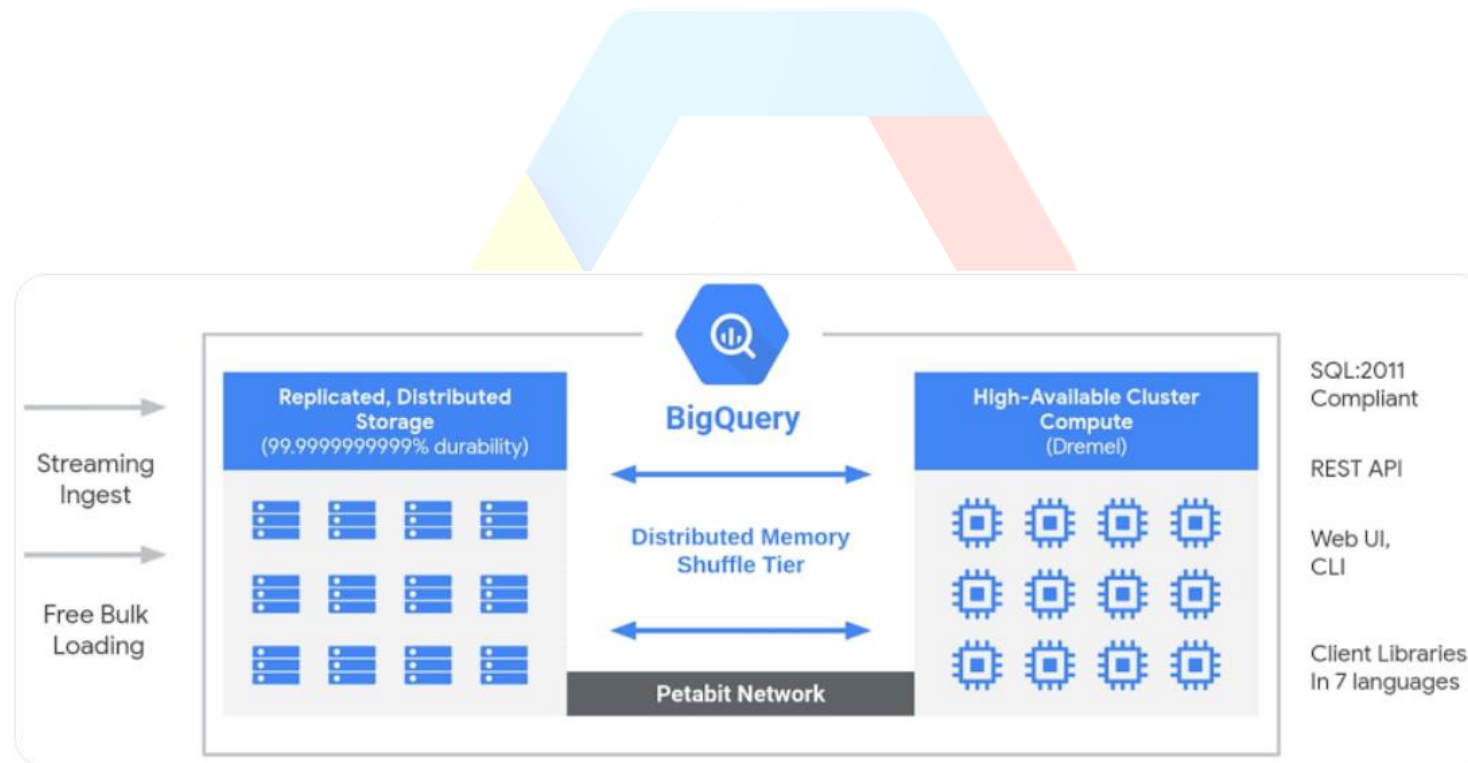
Google Cloud Monitoring & Logging

- > Monitoring in GCP
- > Configure Alerts
- > Create visualizations
- > Define Alerting policies (Condition & Notifications - Multiple channels)
- > Monitoring Workspace
- > Cloud Logging
- > Real time cloud logging
- > Integration with various services in GCP



Google Cloud Data Ware Housing BigQuery

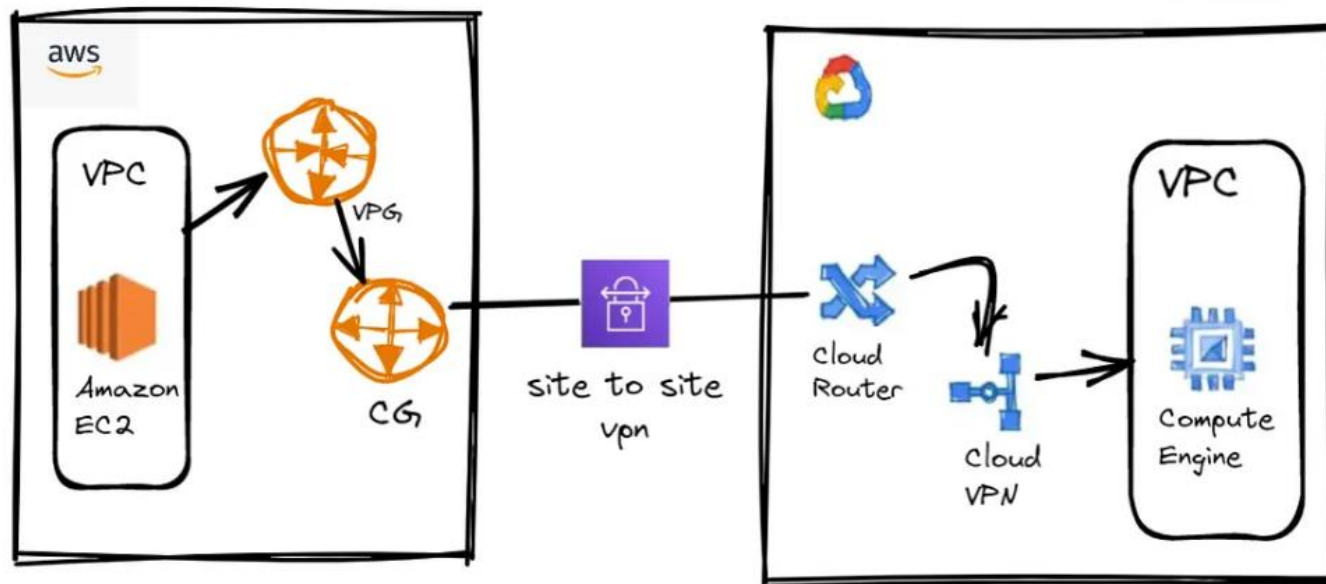
- > Understanding BigQuery
- > Its use cases in different types of business's
- > Sample application demo



BigQuery Architecture

GCP Cloud Migration

- > Understanding Cloud Migration Architecture
- > Migrate service in GCP
- > VPC, VPN & Firewall rules configuration for migration
- > Real time demo of onprem to GCP Migration



INTERVIEW QUESTIONS

- > What is GCP?
- > Mention some best practices for Cloud Security.
- > How is data stored in buckets? What are objects?
- > What are the various methods for authentication of Google Compute Engine API?
- > What are the advantages or benefits of using Compute Engine?
- > Explain what instances are in GCP?
- > What is Compute Engine in GCP ?
- > What is the default bucket location if I do not specify a location constraint?
- > What happens to disk data when the instance is no longer running?
- > What is the difference between basic roles and predefined roles?
- > What is the difference between a project number and a project Id?

INTERVIEW QUESTIONS

- > What is Google Cloud Storage & Data Services?
- > Which NoSQL services does Google offer?
- > Explain how pricing work on Google Cloud?
- > How can I move servers and virtual machines from another cloud or on-premises to the Google Cloud Platform's Compute Engine?
- > Does cloud storage offer upload and download acceleration features?
- > What are the connections between Google Compute Engine and Google App Engine?
- > What is "Virtual Private Cloud" (VPC) when referring to Google Cloud Platform?
- > Explain the Google App Engine?
- > Explain BigQuery?
- > Explain "Google Cloud Machine Images"?

GCP CERTIFICATIONS

Associate Level Certification

Google Cloud Certified Associate Cloud Engineer

Professional Level Certification

Google Cloud Certified Professional Cloud Architect
Google Cloud Certified Professional Cloud Developer
Google Cloud Certified Professional Data Engineer
Google Cloud Certified Cloud DevOps Engineer
Google Cloud Certified Cloud Security Engineer
Google Cloud Certified Cloud Network Engineer
Google Cloud Certified Collaboration Engineer
Google Cloud Certified Machine Learning Engineer

