

# Google Cloud



"Change is the end result of all true learning."

ZebLearn is an ISO 9001-2015 Certified Company that is co-founded by highly experienced industry professionals and alumni of top universities. It is headquartered at Noida & It is one of the fastest-growing solution providers in the field of Education, IT, Consulting and Corporate Trainings.



#### **Essential Cloud Infrastructure: Foundation**

- ❖Introduction to Google Cloud Platform
- ❖ Google Cloud Platform (GCP) Infrastructure
- **❖**Using GCP
- ❖ Lab: Console and Cloud Shell
- ❖ Demo: Projects
- ❖ Lab: Infrastructure Preview

#### Virtual Networks

- Virtual Private Cloud (VPC), Projects, Networks, Subnetworks, IP addresses, Routes, Firewall rules
- ❖Subnetworks for resource management instead of physical network topology
- ❖ Lab: Virtual Networking
- ❖ Lab: Bastion Host

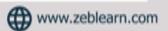
#### Virtual Machines

- Compute Engine
- ❖ Lab: Creating Virtual Machines
- Compute options (vCPU and Memory)
- **❖**Images
- Common Compute Engine actions
- ❖Lab: Working with Virtual Machines Essential Cloud Infrastructure: Core Services

#### **Cloud IAM**

- Organizations, Roles, Members, Service accounts, Cloud IAM best practices
- ❖ Lab: Cloud IAM





### **Data Storage Services**

Cloud Storage

❖Lab: Cloud Storage

❖Cloud SQL

❖ Lab: Cloud SQL

Cloud Spanner, Cloud Data store

❖ Lab: Cloud Data store

Cloud Bigtable

#### Resource Management

Cloud Resource Manager, Quotas, Labels, Names, Billing

❖ Demo: Billing Administration

Lab: Examining Billing Data with BigQuery

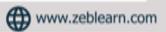
#### Resource Monitoring

- Stackdriver, Monitoring
- Lab: Resource Monitoring (Stackdriver)
- Logging, Error Reporting, Tracing, Debugging
- ❖ Lab: Error Reporting and Debugging (Stackdriver) Elastic Cloud Infrastructure: Scaling and Automation

#### Interconnecting Networks

- ❖Cloud Virtual Private Network (VPN)
- ❖Lab: Virtual Private Networks (VPN)
- Cloud Router, Cloud Interconnect, External Peering, Cloud DNS





#### **Load Balancing**

- Managed Instance Groups, HTTPS load balancing, Cross-region and contentbased load balancing, SSL proxy/TCP proxy load balancing, Network load balancing
- ❖Lab: VM Automation and Load Balancing

### Autoscaling

- Autoscaling, Policies, Configuration
- ❖ Lab: Autoscaling

#### Infrastructure Automation with Google Cloud Platform APIs

- ❖Infrastructure automation, Images, Metadata, Scripts, Google Cloud API
- Lab: Google Cloud Platform API Infrastructure Automation

#### Infrastructure Automation with Deployment Manager

- Deployment Manager, Configuration, Cloud Launcher
- ❖Lab: Deployment Manager

### **Managed Services**

Cloud Dataproc, Cloud Dataflow, BigQuery, Cloud Datalab Elastic Cloud Infrastructure: Containers and Services

#### **Application Infrastructure Services**

Cloud Pub/Sub, API Management, Cloud Functions, Cloud Source Repositories, Specialty APIs

### **Application Development Services**

❖App Engine







#### **Containers**

- Containers, Kubernetes Engine, Container Registry
- ❖Lab: Kubernetes Load Balancing
- ❖Kubernetes Engine, App Engine, or Containers on Compute Engine?



