

## Google Cloud Platform - Syllabus

### Module 1: Overview Cloud & Google Cloud Platform

- Cloud overview & Characteristics
- Cloud Service Model (IAAS, PAAS, SAAS)
- Cloud Deployment Model (Public, Private, Hybrid)
- Google Cloud Platform (GCP) Infrastructure Overview
- Create GCP Account & Console Overview
- Organizations, Folder, Project, Resource & Billing
- Google Cloud Architecture Framework

### Module 2: Virtual Machines

- Compute Engine (VM): Types & Options
- VM Instance Lifecycle & Common Operations
- Machine Types & Compute Options (VCPU And Memory) In Compute Engine
- Images & Snapshots
- Disk Types: Local SSD, Persistent & Balanced

### Module 3: Virtual Networks

- Virtual Private Cloud (VPC) & Types, Subnets
- Ip Addresses (Public/Private), Nic
- Routes & Route Table
- Firewalls
- Network Topology Options

### Module 4: Cloud IAM

- IAM Basic: Authentication, Authorization & MFA
- Roles, Members, Service Account, Policy
- Resource Hierarchy
- Cloud IAM Best Practices

### Module 5: Data Storage Services

- Google Cloud Storage Overview & Structure
- Storage Classes, Versioning & Lifecycle Policies
- Cloud SQL For Database (MySQL, Postgresql and SQL Server)
- Cloud Spanner: Fully Managed Relational DB
- Cloud Datastore
- Cloud Bigtable: NOSQL Big Data Service

### Module 6: App Engine, Functions, Cloud Run

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App Engine: Serverless Web Apps  
App Engine Environments: Standard Vs Flexible  
Cloud Functions: Events & Triggers  
Cloud Run: Serverless Containers

### Module 7: Resource Management

Cloud Resource Manager Overview  
Quotas, Labels, Names & Billing

### Module 8: Resource Monitoring

Stackdriver: Cloud Monitoring & Logging  
Logging, Error Reporting, Tracing, Debugging

### Module 9: Interconnecting Networks

Virtual Private Network (VPN) & Its Types  
VPC Peering (Public & Private)  
Cloud DNS, Cloud Interconnect & Cloud Router

### Module 10: Load Balancing & Autoscaling

Load Balancing Types: Internal, External, Global & Regional  
Https, Network, SSL & TCP Load Balancers  
Cross-Region and Content-Based Load Balancing  
Autoscaling Policies & Configuration

### Module 11: Google Kubernetes Engine

Microservices, Containers, Docker & Kubernetes  
GCP Kubernetes Engine (GKE), Understand the Relationship Between Kubernetes and Google Kubernetes Engine (GKE)  
Kubernetes Architecture : Clusters, Node, Node Pools, Pods, Services  
Deploy & Manage Workloads on GKE

### Module 12: Maintenance & Monitoring

Capacity Planning and Cost Optimization  
Deployment, Monitoring and Alerting, And Incident Response  
Monitoring and Alerting

### Module 13: Cloud Migrations

Understanding Migration Used Cases

## Google Cloud Platform - Syllabus

Understanding Migration Tools and Process

*For more details about this course, Click on this link: [Google Cloud Platform Training](#)*