### **Cloud Services :**

* 1. Introduction to Cloud Computing
  2. High Availability, Fault Tolerance and Disaster recovery
  3. Scalability and Elasticity
  4. Infrastructure as a service (IAAS)
  5. Platform as a service (PAAS)
  6. Software as a service(SAAS)
  7. Public cloud model
  8. Private cloud model
  9. Hybrid cloud model

1. **Google Cloud Introduction**
2. **GCP Infrastructure** 
   1. Understanding the fundamentals of Google Cloud Platform
   2. The Google Global infrastructure
   3. What are Regions ?
   4. What is an Availability Zone
   5. What is Point of Presence
   6. Different projects running on the GCP infrastructure, including Google projects
3. **Account Setup**
   1. Create Free Tier GCP Account
   2. Explore GCP Console
   3. Setting up billing alert
   4. Setup Billing export
4. **Cloud Resource Manager:**
   1. Management Services
   2. GCP Resource Hierarchy
   3. Creating and managing projects.
   4. Limits and quotas
   5. Label
5. **Cloud Billing:**
   1. Cloud Billing
   2. Managing Cloud Billing
   3. Controlling costs and Budgets Alerts
   4. Billing Exports
6. **Google Cloud Services:**
   1. Introduction to Google Cloud services
   2. Managing Google services using command-line tools, app, and console
   3. Deploying Cloud Shell for GCP environment management
7. **Identity and Access Management:**
   1. Cloud IAM Overview
   2. What is a GSuite and Cloud Identity

## IAM Navigation and Organisation Node

* 1. IAM Roles
  2. Working with folders
  3. Custom roles creation and assigning to users
  4. Service accounts

1. **Google Compute Engine**
   1. Compute Engine Overview
   2. Cloud shell, Editor and web preview
   3. Instance options available in GCE
   4. Create and connect to a linux machine
   5. Create and connect to a windows machine
   6. Configuring Web Server for HTTPS
   7. Using gcloud to create compute instances
   8. Disks: Creating , editing and manipulating disks
2. **Google Cloud Storage**
   1. Cloud storage concepts
   2. Working with gsutil command
   3. Cloud storage security
   4. Gsutil commands
   5. Object Versioning and Lifecycle Management
   6. Creating Signed URL’s
   7. What is FileStore ?
   8. How to create NFS from file store
3. **CLoud SQL:**
   1. What is Cloud SQL ?
   2. Creating a MYSQL instance in Google Cloud
   3. Viewing and Editing Instance Information in Cloud SQL
   4. How to Clone a MysqlInstance .
   5. How to Start | Stop | Restart | Delete a cloud sql instance
4. **Virtual Networks:**
   1. IP Address overview
   2. Creation of CIDR
   3. What is a Virtual Private Cloud (VPC)
   4. Creating Multiple VPC’s and establishing connectivity
   5. How to Create Subnets
   6. What is a Public IP Address and Private IP Address
   7. How to create Firewalls
   8. What is Routing and how to create Routes
   9. What is a Shared VPC
   10. How to make VPC network Peering
   11. What are Bastion hosts , and how to configure.
5. **Interconnection Networks:**
   1. How to connect your network to google
   2. Cloud VPN
   3. Cloud Router
   4. Cloud DNS
6. **Load Balancers and Instance Groups**
   1. Automation and scaling
   2. Load balancers overview
   3. Instance Group and Autoscaling
   4. Managed Instance Group
   5. Load Balancer backend
   6. What is TLS ?
   7. VPC Flow logs
   8. Google Cloud armor
7. **Google App Engine**
8. **GCP Continuous Integration Services:**
   1. Continuous Integration
   2. Continuous Delivery
   3. Continuous Deployment
9. **Cloud Source Repositories:**
   1. What is CSR ?
   2. Setup of csr in google cloud
   3. Mirroring Github
   4. Cross project access enablement.
10. **Google CLoud Run:**
    1. Introduction to docker
    2. What are deployments?
    3. What are containers?
    4. What is cloud run
    5. Deploying an application in Cloud Run
    6. How to Rollout and Rollback version in Cloud run
    7. Traffic splitting in Cloud Run
    8. Triggering and scheduling Cloud run
11. **Cloud Build:**
    1. What is Cloud Build ?
    2. Creating an pipeline
    3. Automating builds with Triggers
    4. Establishing a CI/CD pipeline with Google Cloud
12. **Google Container Registry (GCR)**
13. **Google Kubernetes Engine (GKE)**
14. **Monitoring and Logging in GCP**
15. **Deployment Manager**
16. **Deploying Infra using Terraform**
    1. Terraform Fundamentals
    2. Infrastructure as Code with Terraform
    3. Interact with Terraform Modules
    4. Managing Terraform State

**Duration**: **Around 40 hours**

**By,**

**Shaik Saleem Afroze**

**+91 -7780258665**