PIYUSH ACADEMY
TRAINING | CONSULTING | CULTURE

Google Cloud

Certification in GCP Associate Cloud Engineer

GCP Associate Cloud skills and take your career to the next level!

Certification in GCP Associate Cloud Engineer

The Google Cloud Associate Cloud Engineer certification is a foundational certification designed for individuals who want to demonstrate their ability to deploy applications, monitor operations, and manage enterprise solutions on Google Cloud. It's an entry-level certification, making it a great starting point for those new to cloud computing or Google Cloud Platform (GCP).

JOB

1 Million Job Postings

There is a global estimate of 1.3 million job postings for GCP Associate Solution by 2025

Growth

Growing GCP

Expected increase in total addressable market by 2025 is $10 billion

Demand

High Demad

Increase in job postings for GCP Administrator roles in the past year is 35%

About Program

The Associate Cloud Engineer certification is an entry-level credential offered by Google Cloud, designed for individuals who want to demonstrate their ability to manage and deploy applications and infrastructure on the Google Cloud Platform (GCP). Industry professionals created this program. Our curriculum has been created with the understanding that it would not only assist you in improving your skills but also in earning your Associate Cloud Engineer - GCP certification. Each course module will include both theoretical and practical components. Every subject that we will cover in this course has practical application.

Key Highlights

- ✓ 50 Hrs Instructor-led virtual Training
- ✓ Recording would be provided of all sessions
- ✓ Project / Lab based Training
- ✓ Certification Assistance will be provided
- ✓ Trainer has 18+ years of industry experience

Google Cloud

Program Curriculum

Module 1

Google Cloud Fundamentals

1. Introduction to Google Cloud's structure, products, and services.
2. GCP core services
3. GCP projects and IAM
4. Resource hierarchy
5. Billing and pricing

Module 2

Compute

1. Compute Engine (VMs, disk management, snapshots)
2. Kubernetes Engine (GKE)
3. App Engine (standard and flexible environments)
4. Cloud Functions
5. Cloud Run

Module 3

Storage and Databases

1. Cloud Storage (buckets, objects, lifecycle management)
2. Cloud SQL (managed relational databases)
3. Cloud Spanner (scalable relational database)
4. BigQuery (data warehouse)
5. Firestore/Datastore (NoSQL databases)
6. Filestore (managed file storage)

Module 4

Networking

1. VPCs (Virtual Private Cloud)
2. Subnets, Routes, Firewalls
3. Load Balancing (HTTP(S), TCP/UDP, SSL Proxy)
4. Cloud CDN
5. Hybrid connectivity (Cloud VPN, Cloud Interconnect)
6. DNS, NAT, Private Google Access

Module 5

Security

1. IAM roles and permissions
2. VPC Service Controls
3. Cloud Identity and Access Management
4. Audit logs and monitoring
5. Cloud KMS (Key Management Service)
6. Security Command Center

Google Cloud

Program Curriculum

Module 6

Deployment and Management

1. Cloud Deployment Manager
2. Terraform (Infrastructure as Code)
3. Cloud Monitoring and Cloud Logging
4. Cloud Operations (formerly Stackdriver)
5. Automated backups and snapshots
6. Managed instance groups

Module 7

Application Development and DevOps

1. Cloud Build (CI/CD pipeline)
2. Artifact Registry
3. Source Repositories
4. Container Registry
5. Continuous integration and delivery with Jenkins on GCP
6. Cloud Source Repositories and Cloud Functions for development

Module 8

Best Practices

1. Cost management strategies (budgets, billing alerts)
2. Performance optimization (auto-scaling, load balancing)
3. Security best practices (IAM, VPC, encryption)
4. Monitoring and logging best practices

Course Projects

Google Cloud

Projects cover the following industries:

Handling Identity management based on provided architectural requirements

The learners will create Azure Entra ID, and deploy User, group, computer and applications. Handle roles and permission of users, computers and applications. Deploy MFA at the same time. Monitor the activities of users.

Building a dashboard to monitor your website

Monitoring a website with Azure is included in the project wherein the learners will build a dashboard. The learners will use Azure metrics and monitor an organization's website, which is running on a web application, for managing it.

Implementing a New Architecture to the Company's Website

Design an architecture according to the requirement for application gateway, storage accounts, and traffic manager. Use VNET to establish a connection between two networks. Use these services to create a highly-available architecture.

Case Study 1 - Introduction to Cloud Computing

The project involves solving the issue of not wanting the corporation's confidential data on the cloud while migrating to Microsoft Azure. Here, all resources are governed and track costing and billing is performed separately.

Case Study 2 - Microsoft Azure Storage

The project involves the learners solving latency issues, difficulty in accessing common files and tools, and easing the upload of static content to Azure Storage. The learners will also create and configure a CDN endpoint.

Case Study 3 - Azure Virtual Machines

This project allows the learners to manage scaling requirements by using scale sets and use a custom image to create a virtual machine and automate the scaling of virtual machines as required.

Case Study 4 - Microsoft Azure Networking

This project involves creating a VNET with multiple subnets and deploying virtual machines within it. It also involves establishing a connection between these subnets and enabling the resources within them to communicate privately.

Course Projects

Projects cover the following industries:


Retail


Social Media


Banking


Healthcare


E-Commerce


Insurance


Supply Chain

Case Study 5 - Load Balancing and Network Watcher

The learners will study how to successfully set up a load balancer for backend resources and ensure that the setting is such that a single frontend IP is exposed and a network watcher is available to generate alerts in Azure portal.

Case Study 6 - Access Management in Azure

The project adds users to the organization's custom active directory domain and provides access to some of the services managed by them. The password authentication method and MFA must be set up with a verification option.

Contact Us:

Pune, India
Flat # A-702, Ashtvinayak City, Phursungi Village Road, Phursungi, Pune, Maharashtra Phone No: +91-844-6677-218

Ranchi, India
Falt # C-1D, Sail City, New Pundag, Ranchi, Jharkhand

Email: sales@piyushacademy.com