

## Cloud Computing Roadmap with Timeline (12 Months)

### Phase 1: Fundamentals (Months 1-2)

Focus: Understanding Cloud Basics

#### Goals:

- Learn what cloud computing is (IaaS, PaaS, SaaS)
- Understand public, private, hybrid clouds
- Explore leading cloud providers (AWS, Azure, GCP)
- Set up a free tier account on one platform

#### Key Topics:

- Virtualization, scalability, high availability
- Regions, zones, pricing models

#### Milestones:

- Clear understanding of cloud service models
- Free-tier setup completed and explored

### Phase 2: Core Cloud Services (Months 3-4)

Focus: Using Compute, Storage, Networking

#### Goals:

- Launch and manage virtual machines (EC2, Compute Engine)
- Set up object storage (S3, Blob, GCS)
- Basic networking (VPC, Subnets, IPs, Firewalls)

### Key Tools:

- AWS EC2, S3 / Azure VM, Blob / GCP Compute, Cloud Storage

### Milestones:

- Launch and SSH into a VM
- Upload and retrieve files from cloud storage

### Phase 3: Cloud Security & IAM (Months 56)

Focus: Secure Access and Resource Management

### Goals:

- Learn Identity and Access Management (IAM)
- Understand encryption, security groups, KMS
- Set up user roles and permissions

### Milestones:

- Configure IAM users and roles
- Secure cloud resources with access policies

(More phases like DevOps on Cloud, Serverless, Monitoring, and Certification Prep can follow.)