

AWS Cloud – Syllabus

Course Duration: 18 hours

Course Summary:

1. Basics of AWS Cloud computing – 1 hour
2. Compute services – 3 hours
3. IAM services – 1 hour
4. Storage services – 2 hours
5. Networking services – 3 hours
6. Integration & Monitoring services – 1 hour
7. Serverless – 1 hour
8. Databases – 1 hour
9. Infrastructure automation – 1 hour
10. DevOps – 1 hour
11. Container services – 1 hour
12. Cost Management – 1 hour
13. AWS Backup services – 1 hour

01 BASICS OF AWS CLOUD COMPUTING:

- What is cloud computing?
- Advantages
 - Scalability
 - High Availability
 - Reliability
 - Manageability
 - Security and Governance

- Service models (IaaS, PaaS, SaaS)
- Deployment models (Public, Private, Hybrid)
- AWS services
- AWS portal overview

02 COMPUTE SERVICES

- Elastic Compute Cloud (EC2)

- EC2 configuration
- Pricing model
- Connectivity options
- Elastic Block Store
- Snapshots creation
- Amazon Machine Image

- Load Balancer & Auto Scaling

- ELB
- Auto Scaling Group (ASG)

03 IAM SERVICES

- Users
- Groups
- Roles
- Policies

04 STORAGE SERVICES

- Types of data
- Storage types
 - Simple Storage Service(S3)
 - Elastic File System (EFS)
- S3 features
 - Buckets & Objects
 - Access Permissions
 - Storage Tiers
 - Life Cycle Management
 - Static Web application

05 NETWORKING SERVICES

- IP Address
- CIDR blocks
- Elastic IP
- Virtual Private Cloud (VPC)
- Subnet
- Internet Gateway
- Route table
- NAT Gateway
- Security Group
- VPC Peering
- Route 53

- Cloud Front
- Transit Gateway
- VPN

06 INTEGRATION & MONITORING SERVICES

- Simple Queue Service (SQS)
- Simple Notification Service (SNS)
- Event Bridge
- Cloud Watch

07 DATABASES

- Relational Database Services (RDS)
- Dynamo DB

08 SERVERLESS

- Lambda

09 INFRASTRUCTURE AUTOMATION

- AWS CLI
- AWS CloudShell
- Infrastructure as Code
- JSON basics
- Cloud Formation basics
- Create templates
- Deploy templates

10 DEVOPS

- DevOps Lifecycle
- Code Deploy
- Code Pipeline

11 CONTAINER SERVICES

- Elastic Container Registry (ECR)
- Elastic Container Service (ECS)

12 COST MANAGEMENT

- Pricing Calculator
- Cost explorer
- Budgets
- Cost optimization hub

13 AWS BACKUP

- Backup vault
- Backup plan
- Creating, deleting backups