Amazon Web Services (AWS)

Course Content

Introduction to Cloud

1. Introduction & Overview
2. Cloud Infrastructure
3. Essential Characteristics of Cloud
4. Benefits of Cloud
5. Features of Cloud

Elastic Compute Cloud (EC2)

1. What is EC2?
2. Scaling Features of EC2
3. Limitations of EC2
4. Operating System Types
5. Windows Versions
6. Linux Flavors
7. Instance Types
8. Free Tier Limitations
9. EBS?
10. Types of Storages
11. Launching Windows & Linux servers
12. How to Create sample webpage
13. Web Page Hosting
14. Ports & Security Groups
15. Mobaxterm Installation
16. Stopping & Terminating EC2 Instances
17. Protection from Accidental Termination

Elastic Load Balancer (ELB)

1. Intro to ELB
2. Types of Load Balancers
3. Load Balancers & Health Checks
4. User Data
5. Web Traffic flow
6. Attaching servers to Load Balancers
7. Launch Configuration
8. How to Terminate Load Balancer

Auto Scaling

1. What is Auto Scaling?
2. Configuration of Auto Scaling
3. Scale up & Scale Down Policies
4. Status checks
5. System Status check
6. Instance Status Check
7. Protection from Accidental Termination

Amazon Web Services (AWS)

EBS Volumes

1. What is EBS?
2. Encryption of EBS Volumes
3. Delete on termination of EBS Volumes
4. Types of EBS Volumes
5. Difference b/w SSD & HDD
6. Upgrading EBS Volumes
7. Attaching & Detaching EBS Volumes to Instances

AMIs & Snapshots

1. Amazon Machine Image (AMIs)
2. Snapshots
3. Creating our own AMIs
4. Deletion Sequence as per dependencies

S3

1. S3 (Simple Storage Service)
2. What is object storage?
3. Benefits & Limitations of S3
4. Naming Convention
5. Public & Private Options
6. Tiered Storage
7. Static Web Site Hosting
8. Life Cycle Management
9. Replication
10. Versioning
11. Encryption
12. Transfer Acceleration
13. Edge Locations/End Points
14. Summary

IAM

1. Introduction to IAM
2. Components of IAM
3. Root Access Keys
4. Password Rotation Policy
5. Setting Up PRP
6. Creating & Managing users
7. Creating & Managing Groups
8. Creating & Managing IAM Policies/Permissions
9. Inline Policies
10. Managed Policies
11. Custom Policies
12. How to Recover Password
13. MFA
14. GUI & CLI Access
15. Security Features

AWS CLI

1. AWS Command Line Interface
2. What is AWS CLI?
3. Advantages of it
4. How to Access AWS through CLI
5. Access Key & Security Key
6. How to generate Access Keys
7. AWS CLI Package Installation
8. Creating S3 Buckets Through AWS CLI
9. Managing IAM Users Through AWS CLI
10. Managing IAM Groups Through AWS CLI

Amazon Web Services (AWS)

Networking

1. What is network?
2. Network Components
3. Topologies
4. Media
5. Network Interface Card
6. Network Protocol
7. OSI
8. TCP/IP
9. TCP/IP vs UDP Ports
10. IP Addressing
11. Classes of IP Addresses
12. Reserved IP Addresses
13. CIDR
14. Loopback Ip Range
15. Subnet
16. Public IP & Private IP

VPC

1. VPC?
2. Build Your own custom VPC
3. Assigning IP Addresses to VPC
4. What is Subnet?
5. Public & Private Subnets
6. Enabling Public IP
7. Internet Gateway
8. VPC Routers
9. Web Server & DB Server in VPC
10. Restricting ports
11. Bastion/Jump server
12. NAT Gateway
13. Elastic IP?
14. Diff b/w public, Private & Elastic IP
15. MySQL Port connection
16. NACL
17. Inbound & Outbound Rules
18. Stateful & Stateless
19. Ephemeral Ports
20. Security Groups vs NACLs
21. VPC Peering
22. VPC Flow Logs
23. VPC End Points
24. Summary

Route 53

1. Route-53
2. DNS
3. Purpose of DNS
4. Types of Domains
5. How to buy Domains
6. Domain sellers
7. IANA
8. Route 53 Register a Domain Name
9. How Route-53 works
10. Ec2 Instances Lab
11. Health checks in Route-53
12. Different Routing Policies
13. Simple Routing Policy
14. Weighted Routing Policy
15. Latency Routing Policy
16. Failover Routing Policy
17. Geolocation Routing Policy
18. Summary

Relational Database Service (RDS)

1. Databases on AWS

Amazon Web Services (AWS)

2. What is Database?
3. What is RDS?
4. What is SQL?
5. What is NoSQL?
6. AWS Supporting Databases
7. Create our First RDS Instance (MySQL)
8. RDS Back-ups
9. Automated Backups
10. DB Snapshots
11. Database Retention Period
12. DB Transactional Logs
13. Multi- AZ
14. Read Replicas
15. Copy snapshot

Dynamo DB

1. Dynamo DB?
2. What is NoSQL?
3. Connecting web server with DB Server
4. Pulling data from GitHub

RedShift

1. What is Redshift?
2. Data Warehousing?
3. OLTP?
4. OLAP?
5. Redshift configuration
6. MPP

Elasticache

1. Elasticache?
2. Types?
3. Mem Cached
4. Redis (Open Source)

Elastic File System

1. EFS?
2. What is Shared Storage?
3. How EFS Works
4. EFS Architecture
5. Mounting & Mount Points
6. EFS Volume Mounting Process
7. Testing EFS
8. Summary

Cloud Front

1. What is Cloud Front?
2. Setting Up of Cloud Front
3. Architecture
4. CDN
5. Edge Locations/End Points
6. Origin
7. Distribution
8. Time to Live (TTL)

Snow ball

1. Snow ball?
2. Why the need of snow ball?
3. Data Migration Service
4. Snow ball edge
5. Snow Mobile

Elastic Beanstalk

1. Elastic Beanstalk?
2. Need of Elastic Beanstalk?
3. Why developers need to learn this?
4. Supported Languages
5. Cleaning up of Elastic Beanstalk

Amazon Web Services (AWS)

Cloud Formation

1. Cloud Formation?
2. IAC (Infrastructure as Code)
3. Cloud Formation Template
4. Cloud Formation stack
5. Languages used in Cloud Formation
6. Creating a sample Cloud Formation Stack
7. Cleaning up of Cloud Formation

Simple Notification Service (SNS)

1. SNS?
2. Need of Notifications?
3. Format of SNS
4. Topics in SNS
5. Subscribers in SNS
6. Subscription
7. SNS Integration with Auto Scaling
8. How to clean up SNS
9. Summary

Simple Email Service (SES)

1. SES?
2. Purpose of SES
3. SNS vs SES
4. Summary

Simple Query Service (SQS)

1. SQS?
2. SQS Work flow
3. SQS Queue Types
4. Standard Queue
5. FIFO
6. Decoupling mechanism
7. Visibility Time out
8. Summary

Cloud Trail

1. Cloud Trail?
2. Auditing
3. Cloud Trail vs cloud watch
4. How to verify logs
5. Summary

Cloud Watch

1. Cloud watch?
2. Monitoring, Metrics & Analysis
3. Monitoring?
4. Why we should Monitor?
5. Need of Monitoring Tool?
6. Default Monitoring
7. Detailed Monitoring
8. Create Alarms
9. Cloud Watch Graphs
10. Monitoring EC2
11. Summary

Trusted Advisor

1. Trusted Advisor?
2. Importance
3. Cost Optimization
4. Performance
5. Security
6. Fault Tolerance
7. Service Limits
8. Summary

Amazon Web Services (AWS)

Whitepapers

1. Whitepapers & The Well Architecture Framework
2. Security
3. Reliability
4. Performance Efficiency
5. Cost Optimization
6. Operational Excellence
7. Service Models
8. IAAS (Infrastructure as a Service)
9. PAAS (Platform as a Service)
10. SAAS (Software as a Service)
11. Security Credentials
12. AWS Responsibility
13. User Responsibility
14. Scale up & Scale Down
15. Scale Out & Scale In
16. Types of Elasticity
17. Compliance
18. Summary

About This Course

- ✓ 20+ AWS Services will be covered
- ✓ Duration: 60 Days
- ✓ Online Class
- ✓ No Classes on weekends
- ✓ Theoretical & Practical Knowledge
- ✓ Timings: 1hr/day
- ✓ Notes (PPT's & Diagrams)
- ✓ Special Doubt Sessions
- ✓ Recordings won't be provided

Additional Benefits

- ✓ Linux Fundamentals will be covered
- ✓ Networking Essentials will be covered
- ✓ Resume Preparation
- ✓ WhatsApp group for Doubts Clarification
- ✓ Personal Assistance
- ✓ Interview Preparation
- ✓ Day to Day Activities
- ✓ Explanation from basic Level
- ✓ Certification Level Knowledge

Step 2 Success

Our goal is to reduce the cost of skill upgrading courses, making them affordable for everyone. This ensures that individuals can enhance their skills and be job-ready without spending excessively on various courses.