

AWS SysOps Associate Certification Training

Day 1

- Introduction
 - Set Up A Free AWS Tier Account
 - Set Up Your Environment
 - Amazon CLI Tools for PowerShell and SDKs
 - The AWS Global Infrastructure
 - Create a Billing Alarm
- Compute
 - Amazon Elastic Compute Cloud EC2
 - Launching an EC2 Instance
 - Storage for EC2
 - Expand an EBS Volume
 - Creating an AMI
 - Additional EC2 Concepts
 - Amazon EC2 Container Service
 - Amazon Elastic Beanstalk
 - Amazon Lambda
- Monitoring and Metrics
 - Amazon CloudWatch
 - Monitoring EC2 Service in AWS
 - Hands-on: How to Create an Alarm for a Service
 - Monitoring AWS EBS
 - Monitoring Elastic Load Balancer in AWS

- Hands-on: Monitoring ELB and EBS Volume in AWS CloudWatch
- Monitoring Relational Database (RDS) Service in AWS
- Hands-on: Monitor RDS Instance in AWS Through CloudWatch
- Monitoring ElastiCache Service in AWS
- Monitoring EFS in AWS
- Troubleshooting Common Monitoring Issues
- Hands-on: CloudWatch
- Features and Usage of CloudWatch Logs Filters and Alarms
- Hands-on: Set up CloudWatch Alarm on Log Filter Metrics
- Features and Usage of AWS CloudTrail
- Monitoring Pricing
- AWS Billing and Cost Management
- Hands-on: Set Up Billing Metric Alerts Using CloudWatch
- Implementing Cost Optimization in AWS
- Hands-on: Set up Alarm That Will Automatically Stop EC2 Instance if CPU Utilization is Less

Day 2

- Networking
 - VPC
 - VPC Sizing and IP Addresses
 - Subnets
 - IGW
 - Route Tables
 - NAT Gateway
 - VPC Endpoints
 - VPC Flow Logs
 - VPC Peering
 - Network Security Bastion Hosts and Security Groups
 - Security Group
 - Hands-on: VPC Properties-Subnet IGW Route NAT Security Group
 - Hands-on: VPC Peering Connection
 - Limitations and Disadvantages of Increasing Security Groups
 - VPC Sizing and IP Addresses
 - Hands-on: Configuring VPC
 - Concepts of VPN
 - Hands-on: VPN Connection
 - CloudFront
 - Route 53
 - Hands-on: Create a Hosted Zone in Route 53 and Test the Routing Policies
 - Cloud Networking Direct Connect0

- Hands-on: Launching EC2 instance and Private Subnet

Day 3

- Analysis and Cost Effectiveness in AWS
 - Analysis in Cloud
 - Hands-on: Troubleshoot the AutoScaling Issues
 - Cost Management in Cloud
 - Hands-on: Create Billing Alert
 - Cost Explorer Tool, Consolidated Billing, and Trusted Advisor
 - Hands-on: Walkthrough AWS Cost and Billing Dashboard
 - EC2 Pricing
 - Cost Optimization
 - Tagging in the Cloud
 - Hands-on: Enable Detailed Billing on Your Account
 - Hands-on: Create Billing Alert for Idle EC2 Instance
- Storage
 - Amazon S3 Introduction
 - Create an S3 Bucket
 - Access Policies
 - Versioning
 - Lifecycle Policies
 - Cross Region Replication
 - MFA Delete and Advanced Protection Strategies
 - Cross Origin Resource Sharing
 - Encryption
 - Amazon Storage Gateway
 - Amazon Snowball

- Security
 - Features and Uses of IAM
 - AWS Identities and Access Management
 - Hands-on: Create an IAM group with EC2 Full Access Permission
 - Hands-on: IAM Roles
 - Hands-on: IAM Policy
 - Overview of AWS Shared Responsibility Model
 - Data Protection in Amazon S3
 - Hands-on: Create an S3 bucket and Add Policy
 - Account and Instance Security
 - Security Assessment: An Overview

Day 4

- Data Management
 - Key Concepts of Storage in AWS
 - AWS Storage Services: EBS
 - Elastic Block Storage (EBS)
 - Amazon S3
 - Storage Gateway
 - Data Life Cycle and Backups in AWS
 - Amazon Elastic Block Storage (EBS) and Amazon S3
 - Managing Amazon S3
 - Amazon Read Replicas (RDS) and Amazon Glacier
 - Hands-on: Creating an Amazon S3 Bucket and Archiving it in Amazon Glacier
 - Security and Troubleshooting Storage in AWS
 - Storage Troubleshooting Storing Log Files
 - Backup and Restore
 - Hands-on: Synchronize the Content of a Directory with Your Amazon S3 bucket
 - AWS Pilot Light
 - Compliance in AWS
 - Disaster Recovery
 - Warm Standby
 - Multi-Site Setup
- High Availability
 - Scalability and Elasticity Essentials

- Elastic Load Balancing
- Configure Load Balancer
- High Availability of Multi-AZ for Amazon RDS
- Auto Scaling
- Create and Update Auto Scaling
- Auto Scaling: Examples
- Capacity Thrashing, Life Cycle Hooks, and Scaling
- Configure an AutoScaling group
- SQS and SNS Scalability
- Amazon Route 53:02
- Troubleshooting Scalable Deployments
- Hands-on: Create an AutoScaling Group and Add a Scheduled Action for it

Day 5

- Databases
 - Introduction to Databases on AWS
 - Amazon RDS
 - Amazon Aurora
 - Amazon DynamoDB
 - Amazon Redshift
 - Amazon ElastiCache
- Deployment and Provisioning
 - Elastic Load Balancing
 - Hands-on: Working of ALB
 - Lambda and ECS Deployments
 - Hands-on: Deploy a Dockerized Application on an ECS Cluster
 - RDS and DynamoDB Deployments
 - S3 Provisioning and EFS Deployment
 - Hands-on: Mount EFS to an Instance
 - LightSail and Batch
 - Hands-on: Deploy an Application Using Elastic Beanstalk
 - Deployment Automation
 - AWS OpsWorks
 - Hands-on: Deploy an Application Using OpsWork
 - Hands-on: CloudFormation
 - CloudFormation Using a Sample Template
 - CloudFormation Template and Stacks
 - Components of CloudFormation

- CloudFormation Errors and Template
- Hands-on: Debug a CloudFormation Template