



# AWS Certified Sysops Administrator Associate Training Curriculum

## — STRUCTURE —



## **AWS Certified Sysops Administrator Associate Training Curriculum**

*“Become a AWS Certified Sysops Administrator by joining our comprehensive Training Program”*

### **About Croma Campus:**

Croma Campus Training & Development Private Limited is an education platform since 2010 providing rigorous industry-relevant programs designed and delivered in collaboration with world-class faculty and industry.

- Hands-On Live Projects
- Simulation Test Papers
- Industry Cases Studies
- 61,640+ Satisfied Learners
- 140+ Training Courses
- 100% Certification Passing Rate
- Live Instructor Classroom / Online Training
- 100% Placement Assistance

### **Course Objectives:**

- Understand the core concepts of AWS Cloud
- Leverage AWS operations tool to monitor AWS resources
- Perform AWS cli operations
- Rich hands-on labs to understand concepts better
- Understand and Create VPC and auto-scaling
- Ability to deploy and operate EC2, EBS, and ELB service
- Ability to create IAM users, groups, policies, and roles
- Cloud Watch Monitoring

### **Course Description:**

The course is designed based on official certification requirements outlined by AWS Cloud provider for AWS Certified SysOps - Associate. After this Course, you will be able to appear AWS Certified SysOps-Associate. The exam fee is 150 USD with Single attempts at additional cost.

- Gives an edge over other professionals in the same field, in term of pay package.
- All roads are leading to Cloud, and everyone is adopting Cloud computing. Hence, would require Cloud Engineers to drive their journey to cloud
- Helpful for People are trying to transition to Cloud Engineer roles
- Verifies that you are aware of the latest features of Cloud
- The certification helps to speak more confidently about this technology at my company when networking with others.

### **Certification Details:**

- Format: Multiple choice, multiple answer
- Type: Associate
- Delivery Method: Testing center or online proctored exam
- Time: 130 minutes to complete the exam
- Cost: 150 USD (Practice exam: 20 USD)
- Language: Available in English, Japanese, Korean, and Simplified Chinese

## Croma Campus Training Program Deliverables:

- **Session Recordings** - Original Class Room Voice & Video Recording
- **Training Material** - Soft Copy Handbooks
- **Assignments** | 25+ Hands-on Exercises
- **Test Papers** - We provide **Practice Test** as part of our course to help you prepare for the actual certification exam.
- **Live Case Studies**
- **Live Projects** - Hands-on exercises and Project work. You will work on real time industry-oriented projects and assignments for each module to practice.
- **Key focus on Hands-on exercises and Project work.** You will work on real time industry-oriented projects.
- Faculty with more than **10+ Years of Experience** in the Industry.
- **Technical Resume Designing & Job Assistance:** With more than 100+ Clients across the Globe and we help learners to get a good job in their respective field. We also help learners with resume preparation.
- **Interview Q&A**
- **About Croma Campus Training Certificate:** Croma Campus will provide you with an industry-recognized (Certified by **ISO 9001:2015** & **E-Cell IIT Jodhpur**) course completion certificate which has lifelong validity.
- **How I Unlock my Croma Campus Certificate:** Attend Complete Batch & Submit at least One Completed Project.

## Course Content:

### Module 1: AWS Technical Essentials

- Overview
- User Sign Up
- Overview Amazon Management Console
- Management Activity and Billing overview
- Amazon Pricing

### Module 2: AWS Big Picture

- An overview of AWS
- EC2- An overview
- EBS- An Overview
- Security Group-An Overview
- Elastic IP- An overview
- Cloud Front-An Overview
- S3- An overview
- Glacier- An overview
- IAM – An Overview
- RDS- AN overview

### Module 3: Amazon EC2 - Win Server 2012

- Launch Windows server 2012 Instance
- Decrypt Password and download RDP shortcut client

- Connect to the EC2 Windows 2012 instance
- Terminate the Windows server 2012 Instance

#### **Module 4: Amazon EC2 - Security Groups**

- Creating Security Groups
- Modify Security Groups
- Delete Security Groups

#### **Module 5: Amazon Elastic Block Store**

- Create Standard Volume
- Create and delete snapshots
- Create Provisioned I/o Volume
- Assign volumes to Windows server 2012 and Ubuntu 14.04 server
- Disassociate and Delete volumes

#### **Module 6: Amazon Elastic Load Balancing (ELB)**

- Launch Two Ubuntu EC2 Instances- apache web servers with user data
- Edit HTML files to both the servers
- Test your web Servers through internet
- Create Elastic Load Balancer
- Add both the Ubuntu servers to ELB
- Test your Elastic Load Balancer
- Delete your Elastic Load Balancer

#### **Module 7: AWS Route53**

- What is Route53?
- Route-53 demo integration with ELB you created (Performed by Instructor only)

#### **Module 8: AWS S3**

- AWS S3- Overview and Pricing
- Create Bucket and Folder
- Upload, download, share and delete object
- Delete Bucket

#### **Module 9: Amazon EC2- Ubuntu 14.04 with user data**

- Launch the EC2 Ubuntu cloud server
- Using User-data of web-server
- Validate user data is executed successfully

#### **Module 10: Amazon EC2 and EBS System operations**

- EC2- Advanced theory ec2 EBS vs instance store
- EC2- Operations (Status checks)
- EC2 – Creating your own AMI
- EC2 – Launching instance using own AMI
- EC2 – Copy snapshot across region and share across accounts

- EBS – Snapshot
- EBS- Creating volume using snapshot
- EBS – Copy EBS snapshot across region and share across accounts
- EBS - Upgrade volume types
- Security Groups - Create, Edit, and Modify Rules

### **Module 11: Disaster recovery and Backup**

- Disaster recovery in AWS
- Backup in AWS
- Recovery in AWS
- AWS services and automated backups
- Storing log files and other backups

### **Module 12: Amazon Opsworks**

- AWS Opsworks overview and pricing
- Setup Opsworks
- Get started with sample stack

### **Module 13: AWS S3**

- AWS S3- Overview and pricing
- Create Bucket and Folder
- Upload, download, share and delete object
- Delete Bucket
- File Versioning

### **Module 14: Amazon Glacier**

- AWS Glacier overview and pricing
- Create life cycle policies for your bucket
- Access data from Glacier
- Setting auto delete to your data from s3 based on rules

### **Module 15: Auto Scaling and Bootstrapping**

- Overview of Auto-scaling
- ELB: Configuring the Elastic Load Balancer for Auto-scaling group
- Configuring the AMI for Our Web Application
- Auto Scaling and Bootstrapping
- Scale out VM's though stress test
- Scaling VM 's based on low utilization
- Troubleshooting auto-scaling issues

### **Module 16: AWS - IAM (Identity and Access Management)**

- What is IAM? – A comprehensive introduction
- AWS federation with Active directory- Theory only
- Getting started with IAMs
- IAM user- groups
  - Creating a user and group
  - Adding a user to the group

- Password policy setup for users
  - Attaching policy to users
  - Enabling dual /Multifactor authentication to the users
- IAM Roles
  - Creating a role
  - Launching a EC2 instance using a S3 full access role
  - Deleting a role
- Security Token service
- Security on AWS
- AWS and IT audits

### **Module 17: AWS CLI**

- Working with the AWS CLI
- Launch instance with s3 and ec2 full access
- Configure AWS cli client
- Create a security group using cli
- Create a key pair using cli
- Launch an ec2 instance using cli
- Stop an ec2 instance using cli
- Terminate an ec2 instance using cli
- Create an s3 bucket using cli
- Upload and download an object from your local machine to s3 through cli
- List buckets through cli
- Delete buckets through cli

### **Module 18: AWS - Web App and RDS**

- RDS - An Overview
- RDS – Read Replica
- RDS- Multi AZ failover
- RDS snapshots
  - Create a RDS instance
  - Connecting to an RDS instance
  - Creating a RDS snapshots and restoring snapshot
  - Deleting RDS snapshots
- Deploy Web application in Amazon Ec2 (media wiki)
- Connect your Media wiki web application with RDS instances securely
- Make media wiki available on public URL for user sign up and write knowledge wiki
  - Deleting RDS instance

### **Module 19: AWS Route 53 (Live Demo by Instructor)**

- Route 53 - routing options
- Simple routing – Hands-on lab
- weighted routing policy lab
- latency based routing lab
- Geolocation based routing lab
- failover routing lab

### **Module 20: AWS - Virtual Private Cloud (VPC)**

- What is VPC? – A comprehensive introduction
- Networking bottlenecks
- Understanding VPC configurations
  - VPC with single public subnet
  - VPC with public and private subnet
  - VPC Peering
  - Access control List
- Configuring VPC Instances (Hands on lab by students)
  - Creating a VPC
  - Subnets
  - Internet Gateway
  - Routing
  - Configuring a NAT Gateway
  - Creating security groups
  - Launching instances in public and private subnets
- NAT vs Bastions
- VPC Flow Logs
- VPC clean up

#### **Module 21: AWS Cloud Formation**

- Infrastructure as Code using Cloud Formation
- Cloud formation – Create a new stack
- Create and deploy sample template in JSON format
- Use existing templates and deploy

#### **Module 22: Monitoring in the Cloud**

- Cloud Watch Introduction
- EC2 Status Troubleshooting
- Create A Cloud Watch Role
- Monitoring EC2 with Custom Metrics
- Monitoring EBS
- Monitoring RDS
- Monitoring ELB
- Monitoring Elastic Cache
- Centralized Monitoring Servers
- Consolidated Billing
- Billing & Alerts
- Cost optimization

#### **Module 23: Placement Guide**

- Tips to clear an Interview
- Common Interview questions and answers
- AWS Cloud Sysops Interview Questions and Answers
- Resume Building Guide
- Attempt for AWS Cloud Sysops Associate Global Certification Exam
- Earn Credentials and Start applying for Jobs