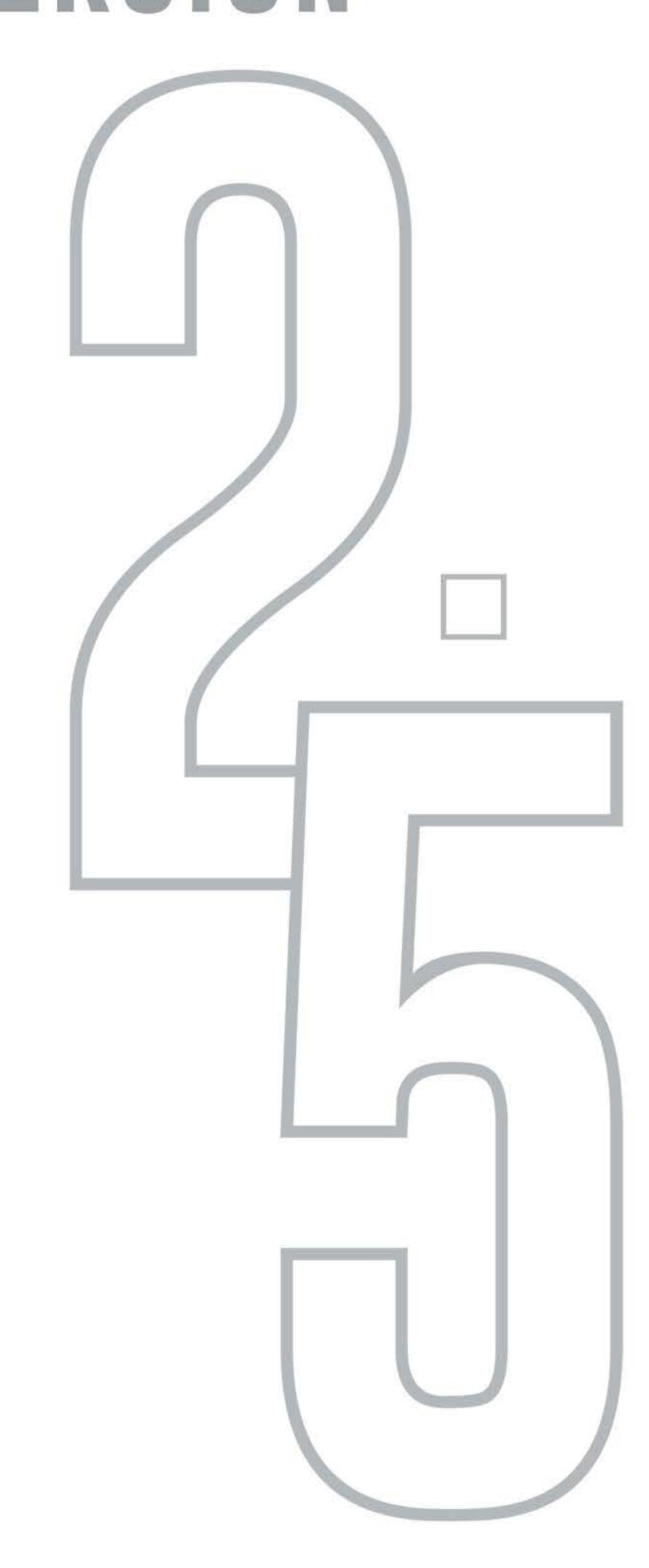


VERSION



SR. CODE
EAPL/PROF/PRTC23

COURSE CODE

EAPSA

SUB CATEGORY

CLOUD COMPUTING







ACADEMY ACADEMY



ARGHITEGI ASSOCIATE [SAA-C02] ELYSIUM ACADEMY AWS CLOUD -SOLUTIONS ARCHITEGT

ELYSIUM





COURSE DESCRIPTION



The fundamental applications of cloud computing, specifically choosing AWS services, are covered in the course. The following services are covered by the course. As a major contender in the world of cloud computing, AWS is something that every IT professional should become familiar with. The audience for this training was novices.

COURSE GOALS



- Identify Use Cases for AWS
- · AWS such as EC2, S3, Cloud IAM and More
- Monitoring and Management or your cloud resources
- Certification Options
- · Additional Resources to learn more.

FUTURE SCOPE



The world is moving toward the cloud, and the demand for AWS Solutions Architects will only increase. The up scaling of cloud computing has led to a paradigm shift in how companies do business. It's now possible for any company to have its own data center, but with a lot more security, scalability, and cost-effectiveness.





DESIGN RESILIENT ARCHITECTURES

CHAPTER

GET STARTED WITH AWS

- a. What is Cloud?
- b. Types of Cloud Deployment models
- c. Cloud Services
- d. Public cloud types
- e. AWS overview
- f. AWS Regions & Zones
- g. Introduction to Aws management console
- h. AWS services



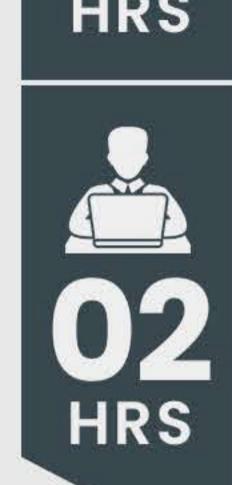
INITIATED AMAZON WEB SERVICES

- a. Assistance Global utilities
- b. Get work with service quotas
- c. Hands on in Comparing Savings Plans & a Quick look at Aws.Compile Optimizer Dashboard
- d. Budget billing dashboard
- e. Budget categories
- f. Security Credentials
- g. Access management console
- h. Work protocol IAM
- i. Hands on Cost Explorer
- j. Aws Purchasing option
- k. Cost management Introduction
- I. Service quotas & Throttling in Axis













ELASTIC COMPUTE CLOUD (EC2)

- a. What is EC2?
- b. Define AMI
- c. Launch Amazon Ec2 instance
- d. Configure Security groups
- e. PEM & PPK
- f. Commit Linux terminal commands
- g. Add volume in EC2 Linux
- h. Deploy Windows server instance
- i. Scenario based architecture
- j. connect to an Ec2 Instance by Using RDP
- k. managing licensing & cost in Ec2
- I. migrating AWS with snowball and outposts
- m. Advanced EC2 networking & connectivity options

CHAPTER

AMAZON ELASTIC BLOCK STORE

- a. Managing data retention and classification in AWS
- b. Data Recovery options on AWS
- c. Features of Amazon EBS
- d. Modify EBS volumes
- e. Encrypting EBS volumes for security
- f. Take Snapshots
- g. Restore Snapshots
- h. Convert into AMI
- i. Deploy cross region instance from AMI
- j. Managing AMI





HRS





- k. Protecting your data with AWS backups
- I. Working with Instance stores in AWs
- m.Amazon fully managed file system service
- n. Understanding EFS: Amazons Elastic file system

INSTANCE CATEGORIES

- a. Distinguish between reboot,
 stop and terminate
- b. Define spot instances
- c. Brief about saving plans
- d. What are reserved instances
- e. Detail about capacity reservation
- f. Instance types





CHAPTER

SCALABLE STORAGE SERVICE (S3)

- a. Configure S3 Bucket & website upload option with S3
- b. Amazon S3
- c. Sharing & Accessing S3 objects with presigned URLS & Access point
- d. What is object storage?
- e. Managing object life cycle & versioning in S3t
- f. Define Scalable Storage in the cloud
- g. Characteristic Versioning & encryption
- H. Deploy buckets using \$3
- i. Analyse your storage
- j. Cross-region replications process
- k. Hosting static website with amazon S3
- I. Enhancing security & Access control in S3









- m. Understanding different storage classes in S3
- n. Storing log files into \$3 buckets

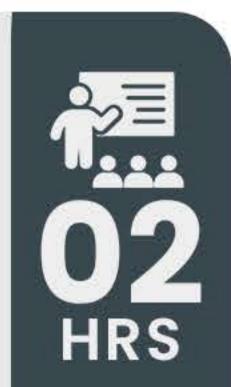
IAM (IDENTITY ACCESS MANAGEMENT)

- a. What is IAM?
- b. Building a secure I AM strategy
- c. Create users & groups
- d. User access key id & secret access key id
- e. Deploy default policies
- f. I AM policies, I AM Rolest
- g. Configure Customized policies
- h. Organize bucket policies
- i. Best practises for Root and I AM users
- j. Managing access across multiple AWS accounts
- k. Acceskey, secreat accesskey CLI

CHAPTER

AWS NETWORK & SECURITY

- a. What is Elastic IP address?
- b. what is public IP, Private IP
- c. CIDR value monitoring with VPC flow logs
- d. Subnetting
- e. Deploy new VPC
- f. Create Subnets
- g. Deploy Route tables
- h. Configure Internet gateways
- i. What is VPC Peering?
- j. Define NAT









k. private communication with VPC Endpoint

I. create 2time Architecture

m. Create 3time architecture using Upc

CHAPTER

DESIGN SECURE WORKLOADS & APPLICATIONS

- a. Designing VPC Architectures with Security components (for Example - Security groups, Route tables, network ACLs, NAT Gateways)
- b. Determining Network segmentation strategies (for example, using public subnets & Private Subnets)
- c. Configure Internet Gateways
- d. Configure NAT gateway for Internet Access



AWS HIGH-AVAILABILITY

- a. Define Load balancer
- b. What is Auto scaling?
- c. Autoscaling polices
- d. Deploy Application load balancer
- e. Configure Target groups
- f. Taken AMI
- g. Create Autoscaling configuration
- h. Configure Auto scaling groups
- i. Creating a lunch template
- j. Horizontal vs vertical scallimg









AWS DATABASES

- a. Define RDS?
- b. Connect database for -time architecture.
- c. What is Dynamo?
- d. Understanding Dynamo DB
- e. Create MYSQL Database instance
- f. Access through client machine
- g. Create Dynamo Db
- h. Backup Dynamo Db
- i. What is Amazon Aurora?
- j. Implementing read replicas with RDS
- k. Selecting the best DB engine for your need

CHAPTER

AWS MONITORING & SNS

- a. Sending notification with Amazon SNS
- b. Create Events & Schedule works
- c. Monitoring memory & disk metrics
- d. Collect and Track metrics
- e. Configure Alarm & assign SNS
- f. Define Cloud Trail
- g. Ordering message with amazon sqs
- h. Handling failed message with dead-letter quoesin SQS
- i. Message queiny with Amazon SQZ









GHAPTER

AMAZON ROUTE 53

- a. Define Route 53
- b. What is DNS?
- c. Define Traffic flow
- d. Create hosed zone
- e. Purchasing domain names
- f. Mapping IP adderess to domain name
- g. Hosting application using domain name



AWS APPLICATION SERVICES

- a. Define LAMDA
- b. What is Elastic bean stalk?



CHAPTER

DATA SECURITY OPTIONS

- a. Monitoring metrics with amazon managed service
- b. Cloud Watch Monitoring
- c. Auditing AWS activities with AWS cloud trail
- d. Cloud watch Alarms/Alerts
- e. Security Hub
- f. NACLS or Security Groups









GHAPTER

SERVERLESS

- a. When to use containers
- b. How to migrat applications into container
- c. Building graphql APIs with AWSApp sync
- d. Scaling database with amazon aurora serverless

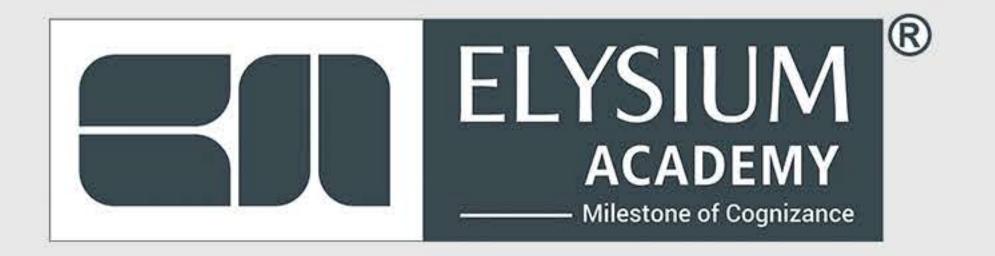
















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