“

UPGRADE YOUR SKILLS AND LAUNCH YOUR CAREER

AWS CURRICULUM

NOVATEC

TRAINING & SERVICES

CONTACT US

+91 8010419361
507, 508, Zen Business Center,
Bhumkar Chowk, Wakad, Pune
411057
contact@novatec.co.in
www.novatec.co.in

Requirements

System Requirements

Hardware Requirements

- Memory – Minimum – 8GB RAM
- Processor – Intel Core i3 CPU @ 2.0 GHz or above
- Storage – 250 GB HDD/SDD or above

Software Requirements

- Operating System – Windows 10
- Open internet with no proxy blocks to connect for virtual machines

AWS Solutions Architect Associate

Module 1: INTRODUCTION TO CLOUD COMPUTING AND AWS

1.1 What is Cloud Computing?
1.2 Cloud service and deployment models
1.3 How AWS is the leader in the cloud domain
1.4 Various Cloud Computing products offered by AWS
1.5 Introduction to AWS S3, EC2, VPC, EBS, ELB, and AMI
1.6 AWS architecture, AWS Management Console, and virtualization in AWS (Xen hypervisor)
1.7 What is auto-scaling?
1.8 AWS EC2 best practices and the cost involved

Module 2: ELASTIC COMPUTE AND STORAGE VOLUMES

2.1 Introduction to EC2
2.2 Regions and availability zones (AZs)
2.3 Pre-EC2 and EC2 instance types
2.4 Comparing Public IP and Elastic IP
2.5 Demonstrating how to launch an AWS EC2 instance
2.6 Introduction to AMIs and creating and copying an AMI
2.7 Introduction to EBS
2.8 EBS volume types
2.9 EBS snapshots
2.10 Introduction to EFS
2.11 Instance tenancy: Reserved and spot instances
2.12 Pricing and design patterns

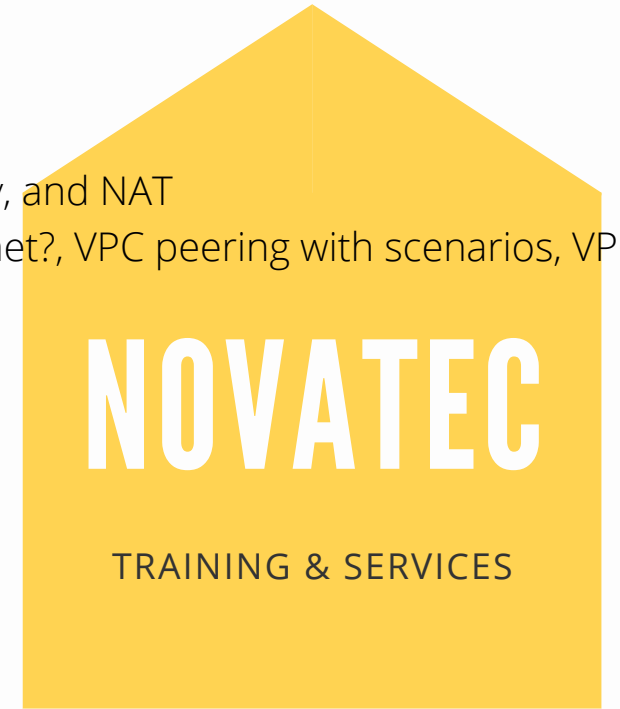
AWS Solutions Architect Associate

Module 3: LOAD BALANCING, AUTOSCALING, AND DNS

3.1 Introduction to Elastic Load Balancer
3.2 Types of ELB: Classic, network, and application
3.3 Load Balancer architecture
3.4 Cross-zone load balancing
3.5 Introduction to autoscaling, vertical and horizontal scaling, and the lifecycle of auto-scaling
3.6 Components of auto-scaling, scaling options and policy, and the instance termination
3.7 Using Load Balancer with auto-scaling
3.8 Pre-Route 53: How DNS works
3.9 Routing policy, Route 53 terminology, and pricing

Module 4: VIRTUAL PRIVATE CLOUD

4.1 What is Amazon VPC?
4.2 VPC as a networking layer for EC2
4.3 IP address and CIDR notations
4.4 Components of VPC: Network interfaces, route tables, Internet gateway, and NAT
4.5 Security in VPC: Security groups and NACL, types of VPC, what is a subnet?, VPC peering with scenarios, VPC endpoints, VPC pricing, and design patterns



AWS Solutions Architect Associate

Module 5: STORAGE - SIMPLE STORAGE SERVICE (S3)

5.1 Introduction to AWS storage
5.2 Pre-S3: Online cloud storage
5.3 API and S3 consistency models
5.4 Storage hierarchy and buckets in S3
5.5 Objects in S3, metadata and storage classes, object versioning, object lifecycle management, cross-region replication, data encryption, connecting using VPC endpoint, and S3 pricing

Module 6: DATABASES AND IN-MEMORY DATA STORES

6.1 What is a database? Types of databases and databases on AWS
6.2 Introduction to Amazon RDS
6.3 Multi-AZ deployments and the features of RDS
6.4 Read replicas in RDS and reserved DB instances
6.5 RDS pricing and design patterns
6.6 Introduction to Amazon Aurora, benefits of Aurora, and Aurora pricing and design patterns
6.7 Introduction to DynamoDB, components of DynamoDB, and DynamoDB pricing and design patterns
6.8 What is Amazon Redshift? Advantages of Redshift
6.9 What is ElastiCache? Why ElastiCache?

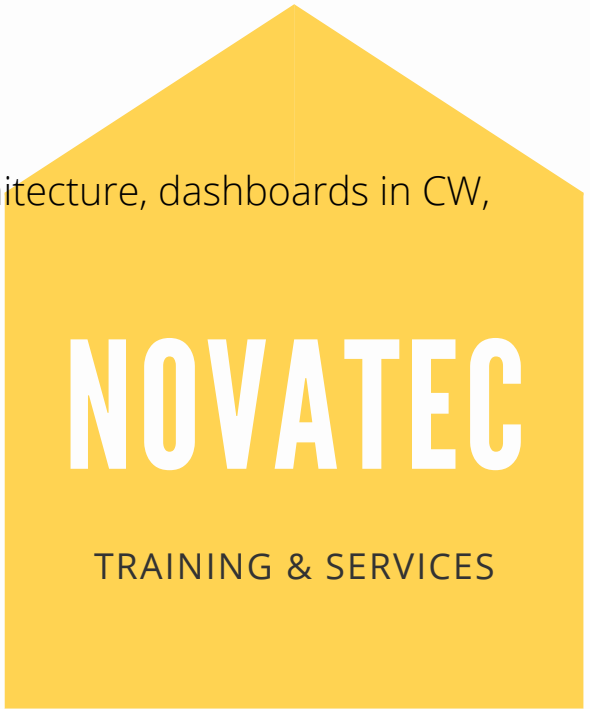
AWS Solutions Architect Associate

Module 7: MANAGEMENT AND APPLICATION SERVICES

7.1 Introduction to CloudFormation
7.2 CloudFormation components
7.3 CloudFormation templates
7.4 The concept of Infrastructure-as-Code
7.5 Functions and pseudo parameters
7.6 Introduction to Simple Notification Service and how SNS works
7.7 Introduction to Simple Email Service and how SES works
7.8 Introduction to Simple Queue Service and how SQS works

Module 8: ACCESS MANAGEMENT AND MONITORING SERVICES

8.1 Pre-IAM and why access management?
8.2 Amazon Resource Name (ARN) and IAM features
8.3 Multi-factor authentication (MFA) in IAM and JSON
8.4 IAM policies, IAM permissions, IAM roles, identity federation, and pricing
8.5 Introduction to CloudWatch, metrics and namespaces, CloudWatch architecture, dashboards in CW, CloudWatch alarms, CloudWatch logs, and pricing and design patterns
8.6 Introduction to CloudTrail and tracking API usage



AWS Solutions Architect Associate

Module 9: AUTOMATION AND CONFIGURATION MANAGEMENT

9.1 What is AWS Lambda?
9.2 How Lambda is different from EC2
9.3 Benefits and limitations of Lambda
9.4 How does Lambda work?
9.5 Use cases of Lambda and Lambda concepts
9.6 Integration S3 with Lambda
9.7 What is Elastic Beanstalk? How does Beanstalk work? Beanstalk concepts and Beanstalk pricing 9.8 What is configuration management?
9.9 What is AWS OpsWorks? AWS OpsWorks benefits
9.10 CloudFormation vs OpsWorks, services in OpsWorks, AWS OpsWorks Stacks, and OpsWorks pricing

Module 10: AWS MIGRATION

10.1 What is cloud migration?
10.2 Why is migration so important?
10.3 Migration process in AWS and the 6 Rs of the migration strategy
10.4 Virtual machine migration and migrating a local VM onto the AWS cloud
10.5 Migrating databases using Database Migration Service (DMS)
10.6 Migrating a local database to RDS
10.7 Migrating an on-premises database server to RDS using DMS and other migration services