



REALTIME IT SOLUTIONS

#INDIA'S NO. 1 TRAINING IN CLOUD COMPUTING



AWS Solution Architect-Associate Training Curriculum

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Module 0 :-

IT Foundation sessions of infrastructure for cloud (Building blocks)

In this series, we will strengthen your foundation, essential for understanding the cloud, this encompasses details about computers, servers, various devices, architectures, network setups, components, topologies, operating systems, application specifics, and more. Therefore, before delving into the cloud, we aim to fortify your foundation, ensuring even non-IT individuals can navigate IT effortlessly. Our design philosophy prioritizes this approach. Importantly, we invest 10 hours here before directly venturing into the cloud, enabling you to establish a robust base.

Module 1 :- AWS Cloud Basics

- What is Cloud and Models- IaaS, SaaS, PaaS
- Types of Clouds and how it works?
- AWS Support Plans.
- Overview of AWS Cloud
- AWS Global Infrastructure
- AWS Free Tier Account Creation
- AWS Management Console
- AWS Region
- AWS Availability Zone(AZ)
- AWS Support Plan
- AWS Payment Method
- Setting up Billing/Budget Alarm and preferences.

Module 2 :- IAM

- Identity and Access Management (IAM)
- Create IAM Users & Group
- Copy Permission from existing users
- Applying Policies/Permission to Groups
- IAM Users Sign-in Link
- Set Password Policy for IAM Users
- Activate Virtual Multi-Factor Authentication(MFA)
- Create access keys, Activate/deactivate keys

Module 3 :- VPC

- Basic of Networking
- Virtual Private Cloud(VPC)
- CIDR/IP Range & Subnet
- Understanding & Working on Default VPC
- Creating Custom VPC
- Adding CIDR in VPC
- Creating Subnet in VPC

Module 4 :- VPC-Components

- Understanding Route Table
- Create Custom Route Table
- Add Route in Route Table
- Associating Subnet to Route Table
- Internet Gateway
- Create Custom Internet Gateway
- Attach Internet Gateway to VPC
- Security Group(SG)
- Understanding Default SG
- Create Custom SG
- Create Inbound & Outbound Rule
- Permit Rule in SG
- NACL (Network Access control List)
- Understanding Default NACL
- Create Custom NACL
- Create inbound & outbound rule
- Associate NACL to Subnet
- Difference Between NACL & SG

Module 5 :- EC2

- Basic of Virtualization
- What is EC2
- EC2 Instance Families
- Amazon Machine Image(AMI) & AWS Marketplace



- Delete on Termination settings
- Launching an EC2 Instance
- Create Public/Private Key Pair
- EC2 SLA
- Shared & Dedicated Host, dedicated Instance
- EC2 Instance State
- Stop & Start of EC2 Instance
- EC2 Shutdown behavior
- Enable EC2 Termination Protection
- EC2 Elastic IP
- EC2 Instance State
- EC2 Hibernation

Module 6 :- NAT Instance, Gateway and Peering

- Need of NAT
- Understanding of NAT Instance
- Private & Public Subnet
- Source/Destination Check setting
- Understanding of NAT Gateway
- Need of VPC Peering
- Create Peering Connection and test
- Editing Route Table for VPC peering to work

Module 7 :- EBS & Instance Store

- What is EBS
- Create EBS Volume
- Type of EBS Volume
- General Purpose & Provisioned IOPS SSD
- Throughput Optimized & Cold HDD
- What is Instance Store Volume
- Persistent/Non-Persistent volume
- Hot Add EBS Volume
- Hot Extend & Modify EBS Volume
- EBS Volume SLA

- EBS Backed Instance & Instance Store Backed Instance

Module 8 :- Elastic compute Purchasing options.

- EC2 Purchasing Options
- On Demand Instance
- Reserved Instance
- Standard & Convertible EC2
- EC2 Saving Plan
- EC2 Spot Plan
- Spot Instance Pricing History
- Spot Instance Use Cases

Module 9 :- ENI & Placement Groups

- Elastic Network Interface(ENI)
- Attach ENI to EC2
- Assign Elastic IP to ENI
- What is Placement Group
- Need of Placement Group
- Cluster Placement Group
- Spread Placement Group
- Partition Placement Group

Module 10 :- EBS Snapshot, EBS Volume Migration

- Create Snapshot of EBS Volumes
- Restore Snapshot
- Incremental Nature of snapshot
- Copying Snapshot
- Migrating EBS from one AZ to another AZ using Snapshot
- Migrate EBS from one Region to another Region using Snapshot

Module 11 :- Encryption into EBS, KMS, details in Snapshot, AMI

- What is Encryption
- Key Management Service(KMS)
- Encryption key s- Customer Managed Key & AWS Managed Key(Default key)



- Encrypted EBS Volume
- Encrypted Snapshot
- Encryption At Rest
- Encryption in Transit
- Changing the Encryption State
- Private and Public Snapshots
- Sharing EBS Snapshot
- Copying EBS Snapshot
- Creating Custom Amazon Machine Image (AMI)
- De-Registering AMI
- Deleting AMI

Module 12 :- ELB with Testing Load Balancer and NLB & Auto scaling deep dive

- What is Load Balancer
- Types of Load Balancer
- Working on Classic Load balancer
- ELB Nodes
- Adding EC2 in Load balancer
- Configuring health Check in ELB
- Installing IIS in EC2
- Test Load Balancer in Action
- Need of Auto scaling
- Auto Scaling Components
- Launch Configuration
- Auto Scaling Group
- Auto Scaling Policies
- Re Balancing in Auto Scaling
- Cloud Watch with Auto Scaling
- ELB with Auto Scaling
- Network Load balancer understanding and difference.

Module 13 :- S3, SNS, RDS

- Simple Storage Service – S3

- S3 availability & Durability
- S3 Bucket
- Versioning in S3
- Configuring Cross Region Replication
- S3 Storage Class Type & SLA
- Hosting Static Website in S3
- Advanced S3 optional topics
- Creating topic in Simple Notification Service (SNS)
- Configuring Simple Notification Service (SNS) on S3
- What is Relational database
- Relational Database as a services (RDS)
- Creating Active & Standby RDS
- Multi-AZ Deployment of RDS
- Perform Failover
- Create Read Replica
- Test using MySQL Workbench

Module 14 :- Redshift, Kinesis, AWS Lambda, Dynamo DB, Inspector, Route 53, Testing Routing Policies, Creating A Record, CNAME Record, Alias Record

- Redshift
- Redshift Use Cases
- What is Non-Relational Database
- Dynamo dB
- Dynamo dB Use Cases
- Testing Dynamo dB
- AWS Inspector
- Kinesis
- Kinesis Use Cases
- Lambda
- Lambda Use Cases
- What is Route 53
- Create Hosted Zone



- Creating A & CNAME Record
- Creating Alias record
- How to register Domain name
- Check Health of Resource
- Test different routing policies
- Using ELB in Route53
- Using S3 in Route53

Module 15 :- Cloud Front, Cloud Formation, SQS, Cloud Trail AD Connector, IAM Roles for EC2 and S3 access, On premises user Integration with Cloud (Hybrid Cloud),

- CloudFront
- Using S3 as CloudFront Edge Location
- Create CloudFront
- CloudFormation
- Test Cloud Formation using JSON template
- CloudTrail to Check Logs
- What is Simple Queue Service(SQS)
- Create a Queue & Send Message
- Creation of Domain Controller (DC)
- Creation of AD Connector
- On Premises DC Integration using AD Connector

Module 16 :- Additional part Clear understanding of workspaces, Control Tower, and Cost management strategies and difference with other clouds and migration strategies.

- Basics of Workspace, Control tower.
- Complete cost management roadmap.
- End to end project understanding in real practice.
- VMware/Azure to AWS migration strategies
- Difference between AWS, Azure and GCP.
- AD connector and more extra services like EFS, Macie, API and Storage gateway Light Sail, AWS Config, Glue and AWS System Manager...

Module 17 :-

VPG & VPN Setup and many more(With some hidden topics)

- Need of VPN
- How to Setup VPN
- Virtual Private Gateway(VPG)
- Deploy Fortinet Fortigate Firewall
- Configuring Firewall
- Create Site – To – Site VPN Tunnel
- Test connectivity using EC2 in 2 different regions
- Request for Reversal of Charges

Module 18 :- Bonus

- 24/7 Support
- 1:1 Mentor Support
- Certification preparation
- Industry standard Curriculum (CV)
- Interview preparation
- Recorded videos
- Running Notes
- Guidance of Real-world Scenarios.
- MNC work cultured and process.
- Career guidance.
- Job hunting techniques
- Certificate of Completion
- Referral advantages.

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