

Amazon Web Services (AWS)

Overview:

AWS is a cloud service from Amazon, which provides services in the form of building blocks, these building blocks can be used to create and deploy various types of application in the cloud. It provides on demand computing resources and services in the cloud, with pay as you go pricing. We can run a server on AWS that we can log on to, configure, secure and run just as we would do on a server that is sitting in front of us and it provides many of the same benefits, capacity exactly matches our need and we pay only for what we use.

Introduction and getting started with AWS

- Introduction to Cloud Computing
- Cloud Computing Deployment Models
- AWS Introduction
- AWS Global Infrastructure and its benefits
- Different AWS services
- Setting up of the AWS account

Amazon EC2

- EC2 instances
- Different EC2 Instance purchasing options and placement groups
- What is Amazon AMI
- AMI creation, security groups, key pairs

Simple Storage Services (S3)

- Traditional storage tiers
- Disadvantages of traditional storage over cloud
- AWS storage options: EBS, S3 & Glacier
- AWS Connecting Storage: Snowball & Storage Gateway

Virtual Private Cloud & Direct Connect

- Subnet and Subnet Mask
- VPC and its benefits
- Default and Non-default VPC
- Components of VPC
- Direct Connect

Database Services

- Different database services of AWS:
 - Amazon RDS
 - DynamoDB
 - ElastiCache
 - RedShift
- Creating a MySQL DB Instance

Elastic Load Balancing & Auto Scaling

- Components and types of load balancing
- Auto scaling and its benefits
- Lifecycle of auto scaling
- Components and policies of auto scaling

Route 53 & Management Tools

- Overview of Route 53
- Overview of Management tools:
 - CloudTrail
 - CloudWatch
 - CloudFormation
 - Trusted Advisor

Application Services, AWS Lambda & Elastic Beanstalk

- AWS Application Services: SQS, SNS, SWS
- AWS Compute Services: Lambda and Elastic Beanstalk

Identity and Access Management IAM

- Root Account
- Creation of user accounts in AWS
- Groups and Roles in IAM
- AWS key & Secret Key
- Managing Permissions

Hosting a Website on Amazon Web Services

- Configure a Virtual Private Cloud (VPC)
- Create an Application Server within your VPC
- Create a Database Server within your VPC
- Deploy Your App
- Associate a Domain Name with your website

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