

## Amazon Web Services (AWS)

**AWS, Inc.** indeed offers a wide array of cloud computing services that cater to various needs of individuals, businesses, and governmental organizations. One of the key advantages of AWS is its pay-as-you-go pricing model, which allows clients to only pay for the computing resources they consume, without any long-term commitments or upfront costs.

Autoscaling is a particularly valuable feature provided by AWS. It allows clients to automatically adjust the number of compute resources (such as EC2 instances) based on demand. This ensures that applications can handle varying levels of traffic efficiently without manual intervention. Autoscaling helps in maintaining performance and cost-effectiveness by automatically adding or removing resources as needed, thus optimizing resource utilization and minimizing costs during low-demand periods.

## Tech Stack To Be Covered



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### Course Outline:

## 1. Introduction to Cloud Computing and AWS

- Basics of cloud computing
- Overview of AWS and its significance in cloud computing

## 2. Getting Started with AWS

- Setting up an AWS account
- Navigating the AWS Management Console

## 3. Compute Services

- Understanding EC2, Lambda, and ECS

## 4. Storage Services

- Exploring S3, EBS, and Glacier

## 5. Database Services

- Overview of RDS, DynamoDB, and Redshift

## 6. Networking Services

- Introduction to VPC, Route 53, and CloudFront

## 7. Security and Monitoring

- Managing security with IAM, Security Groups, and CloudWatch

## 8. Deployment and Management Tools

- Automating infrastructure with AWS CLI and CloudFormation

## 9. Scalability and Elasticity

- Implementing auto-scaling and load balancing

## 10. Best Practices and Cost Optimization

- Optimizing costs and resources for efficiency