**Getting Started**

* Traditional IT and Cloud Computing
* Examples and Benefits of Cloud Computing

**Create your AWS Free Tier Account**

* Introduction
* AWS Account Overview

**Cloud Computing and AWS**

* Traditional IT and Cloud Computing
* Examples and Benefits of Cloud Computing
* Types of Cloud Service and Deployment
* Overview of Amazon Web Services (AWS)
* The AWS Global Infrastructure
* The AWS Shared Responsibility Model
* Application Programming Interfaces (APIs)
* Launching Cloud Services
* AWS Public and Private Services
* The 6 Advantages of Cloud Computing

**Identity and Access Management (AWS IAM)**

* AWS IAM Overview
* IAM Users, Groups, Roles, and Policies
* IAM Authentication and MFA
* Service Control Policies (SCPs)
* IAM Best Practices

**AWS Compute Services**

* Computing Basics
* Server Virtualization
* Amazon Elastic Compute Cloud (EC2)
* Amazon EC2 User Data and Metadata
* Accessing Services – Access Keys and IAM Roles
* AWS Batch
* Amazon LightSail
* Docker Containers and Microservices
* Amazon Elastic Container Service (ECS)

**AWS Storage Services**

* Block vs File vs Object Storage
* Amazon Elastic Block Store (EBS)
* Amazon EBS Snapshots and DLM
* EBS vs Instance Store Volumes
* Amazon Elastic File System (EFS)
* Amazon Simple Storage Service (S3)
* Amazon S3 Storage Classes
* S3 Versioning, Replication and Lifecycle Rules
* Archiving with S3 Glacier
* AWS Storage Gateway

**DNS, Elastic Load Balancing, and Auto Scaling**

* DNS and Amazon Route 53
* Elasticity: Scaling Up vs Out
* Amazon EC2 Auto Scaling
* Load Balancing and High Availability
* Amazon Elastic Load Balancer (ELB)
* Scaling Policies

**Application Services**

* Serverless Services
* AWS Lambda Functions
* Application Integration Services
* Amazon EventBridge / CloudWatch Events
* Amazon API Gateway

**Amazon VPC, Networking, and Hybrid**

* Amazon Virtual Private Cloud (VPC)
* Security Groups and Network ACLs
* Public, Private and Elastic IP Addresses
* NAT Gateways and NAT Instances
* Amazon VPC Peering
* Amazon VPN and AWS Direct Connect
* AWS Transit Gateway
* AWS Outposts

**Deployment and Automation**

* Caching and Amazon CloudFront
* AWS Global Accelerator
* AWS CloudFormation
* AWS Cloud Development Kit (CDK)
* AWS Elastic Beanstalk
* AWS Developer Tools (Code\*)
* AWS X-Ray
* AWS OpsWorks

**Databases and Analytics**

* Types of Database
* Amazon Relational Database Service (RDS)
* Amazon Aurora
* Amazon DynamoDB
* Amazon RedShift
* Amazon Elastic Map Reduce (EMR)
* Amazon ElastiCache
* Amazon Athena and AWS Glue
* Amazon Kinesis
* And: AWS Data Pipeline, Amazon QuickSight, DocumentDB, Neptune, QLDB, Blockchain

**Management and Governance**

* AWS Organizations
* AWS Control Tower
* AWS Systems Manager
* AWS Service Catalog
* AWS Config
* AWS Trusted Advisor
* AWS Health API and Dashboards

**AWS Cloud Security and Identity**

* Identity Providers and Federation - SAML/WIF + SSO + Cognito
* AWS Directory Service
* Protecting Secrets - SSM Parameter Store and Secrets Manager
* Encryption - AWS KMS, ACM, in-transit / at-rest
* Logging and Auditing - Amazon CloudWatch Logs, CloudTrail, Flow Logs, ELB logs, and S3 logs
* Detect and Respond - Amazon Detective, GuardDuty, Macie
* Firewalls and DDoS Protection - AWS WAF & Shield
* Compliance Services - AWS Artifact, Config
* Security Management and Support - AWS Security Hub, Security Bulletins, Abuse Team
* Penetration Testing

**Architecting for the Cloud**

* AWS Well-Architected
* AWS Well-Architected Framework

**Accounts, Billing and Support**

* AWS Pricing Fundamentals
* Amazon EC2 Pricing Options
* Amazon EC2 Pricing Use Cases
* Pricing for other AWS Services
* AWS Support Plans
* Consolidated Billing
* AWS Cost Management Tools

**Migration, Machine Learning and More**

* AWS Migration and Transfer Services
* AWS Machine Learning Services
* End User Computing
* AWS IoT Core