# **Introduction to Cloud Computing/ AWS Topics**

# **Compute and Storage**

- Virtualization
- EC2 Instances and benefits
- Security Groups
- EBS
- EFS
- Load Balancers
- Autoscaling

# **Network and Monitoring**

- Basics of VPC
- Components of VPC
- Subnets
- Gateways & Route table
- NACL & Security Groups
- VPN
- VPC Flow logs , VPC Peering
- Route 53
- CloudWatch
- Cloud Trail
- X-Ray

### **DB Services and Analytics**

- Amazon RDS
- Amazon DynamoDB
- Amazon Elastic Cache
- Amazon Redis
- Aurora
- Dynamo DB DAX
- Kinesis
- Athena

# **Devops on Cloud**

- Software release methodologies
- Devops life cycle
- CICD
- Code commit
- Code Build
- Code Deploy
- Code Pipeline
- AWS Codestar

#### **Core services in AWS**

- AWS Lambda
- Simple Storage Service (S3) and Its Components
- Working of S3
- Lifecycle Policy of S3 Bucket
- Introduction to Containers
- Introduction to ECS
- ECS Tasks, Services
- Introduction to ECR
- AWS Fargate
- Introduction EKS
- API Gateway
- Deployment stages and Configurations
- API Gateway Authentication & Authorization
- API Gateway architecture

### **Configuration Management and Automation**

- Cloud formation and its components
- Templates in CloudFormation
- AWS OpsWorks
- AWS OpsWorks services
- Components of AWS OpsWorks Stack
- Elastic Beanstalk

# **Integrating & Messaging Services**

- AWS Simple Notification Service (SNS)
- SQS: Work with SQS, ASG with SQS
- AWS Simple Email Service (SES)
- Amazon Event Bridge
- AWS Lambda

### **Security and User Management**

- IAM Introduction
- Users, Groups and Policies
- AWS Cognito
- AWS CLI
- AWS CloudShell
- IAM Best practices
- KMS
- KMS Encryption Patterns
- Secret Manager

### **Other Services Introduction**