

AWS DEVOPS

Introduction to AWS DEVOPS

- What is DevOps in cloud?
- History of DevOps
- DevOps and software life cycle
- DevOps main objectives
- IAAS overview
- PAAS overview
- SAAS overview
- Continuous Testing and Integration
- Continuous Release and deployment
- Continuous Application monitoring

AWS Web Services

Basic of Linux for AWS

- Cd
- Mkdir
- Ls Jobs
- Chmod
- Vim ?
- Vi & cat ?
- Gzip ?
- And many more....

Amazon Elastic Compute Cloud (EC2)(Complete)

- Different instance types
- AMI's
- Volumes
- Snapshots
- EIP's
- Key pairs
- Security groups
- Network Interfaces
- Load balancers
- Auto scaling
- Tags

AWS S3

- What is s3?
- Buckets & objects
- Pre-signed URL
- Permissions
- Distributions
- Relation between Cloud front, S3 & glacier

VPC (Virtual Private Cloud)

- Different types of networks that can be setup in AWS
- Creating a custom VPC
- NACLs & Security Groups
- Creation of Internet Gateway(IGW)
- Connecting to instances in the gateway
- Subnets, Route Tables & Association
- NAT Instances & NAT-Gateways
- DHCP Options Sets & DNS
- VPC Peering
- VPN overview & components

IAM

- Basics of AWS permissions.
- Roles
- Profiles
- Policies
- MFA authentication
- User permissions
- Groups based
- AWS key & Secret Key

Dynamo DB

- What is no sql technologies
- Dynamo DB capacity
- Create tables & do a sample projects.

Route 53

- Configuring Amazon Route 53 as Your DNS Service
- Registering a Domain Name and Configuring Amazon Route 53 as the DNS Service
- Migrating DNS Service for an Existing Domain to Amazon Route 53
- Creating a Subdomain That Uses Amazon Route 53 without Migrating the Parent Domain
- Working with Public Hosted Zones
- Working with Private Hosted Zones
- Working with Resource Record Sets
- Health Checks and DNS Failover
- Creating, Updating, and Deleting Health Checks
- Transferring a Domain from a Different AWS Account or Registrar

Future Q Technologies

- Using IAM to Control Access to Amazon Route 53 Resources

Cloud watch

- Debugging cloud related issues
- Monitoring the AWS Service Health Dashboard
- Monitoring with Cloud watch
- Getting statistics for a specific EC2 instance
- Getting aggregated statistics
- Metrics for other AWS Services and related namespaces
- Setting up notifications

SimpleNotificationServices (SNS)

- Creation of a topic
- Subscribing to topic via Email
- Setting notification for EC2 instance changes

Simple Queue Service (SQS)

- Creation of a queue
- Sending messages to the queue
- Sending SNS to SQS
- Retrieving messages from SQS

Simple Email Services (SES)

- Setting up email domain
- Limits of SES
- Test Email setup

Elastic Beanstalk

- Creation of Web-App using Elastic Beanstalk
- Building a sample application using Beanstalk
- Modifying the properties of the deployment.

Relational Database Service (RDS)

- DB Instances
- Selecting the DB-Engine
- Configuring the Database Server
- Creating your Database
- Setting up automatic backups, snapshots & restores

- Authorizing access to the DB with RDS Security Groups
- DB Instance Replication
- Security: Using IAM to Manage Access to Amazon RDS Resources
- RDS Limits
- Managing MySQL Database server
- DB Instance Life Cycle: Renaming a DB Instance
- Deleting or Rebooting a DB Instance
- Working with Storage Types
- Upgrading a DB Instance
- Working with Option Groups & DB Parameter Groups
- Working with Reserved DB Instances
- Monitoring
- Database Log Files

Cloud Front

- How CloudFront Delivers Content
- Working with Distributions
- Working with Web Distributions
- Working with Objects
- Request and Response Behaviour
- Serving Private Content through CloudFront
- Using an HTTPS Connection to Access Your Objects
- Using IAM to Control Access to CloudFront Resources
- Monitoring CloudFront Activity Using CloudWatch

ElastiCache

- ElastiCache Terminology and Concepts
- Backup and Restore
- Clusters Explanation (Memcached and Redis)
- CloudWatch Metrics with ElastiCache
- Managing ElastiCache
- Managing Replication Groups
- DNS Names and Underlying IP

Cloud Formation

- Building AWS infrastructure as a code
- Utilization of Sample templates
- Introduction to JSON

Use Cases

- Cloud Architecture Best Practices
- Cost Optimization
- Security Considerations
- Cost Calculation
- AWS CLI & use case to check instance, ELB, EBS states
- Building a simple web application in the AWS cloud Certification Track & guidance

Languages:

- Python
- PowerShell
- Jinja
- Java
- C#.net
- AwsCli Commands

Resume Key Points & AWS Certifications Overview