

DVS AWS Content

Cloud Fundamentals:

- ❖ Introduction to Cloud Computing
- ❖ Why Cloud Computing?
- ❖ Benefits of Cloud Computing
- ❖ Types of Cloud Computing
- ❖ Public, Private & Hybrid Cloud
- ❖ Community Cloud
- ❖ Software as a Service
- ❖ Platform as a Service
- ❖ Infrastructure as a Service
- ❖ Horizontal vs. vertical scaling
- ❖ Cloud Computing Issues
- ❖ Security
- ❖ Costing Model
- ❖ Service Level Agreement (SLA)
- ❖ Cloud Interoperability Issue
- ❖ What to migrate?
- ❖ Legal and compliance
- ❖ What is virtualization?
- ❖ Virtualization and cloud computing
- ❖ Types of virtualization
- ❖ Virtualization terminologies
- ❖ Hypervisor
- ❖ Benefits

VPC:

- ❖ VPC configuration
- ❖ VPC security
- ❖ Elastic IP's Inbound and outbound ACL's
- ❖ NAT gateway
- ❖ VPN Connection
- ❖ Peering Connection
- ❖ Direct Connect

S3:

- ❖ S3 Buckets
- ❖ S3 durability and redundancy
- ❖ S3 Uploading Downloading
- ❖ S3 Permissions
- ❖ S3 Object Versioning
- ❖ Static Web hosting
- ❖ S3 Lifecycle Policies
- ❖ Replication
- ❖ Backup

EBS:

- ❖ Create EBS volumes
- ❖ Delete EBS Volumes
- ❖ Attach and detach EBS volumes
- ❖ Mounting and un mounting EBS volume
- ❖ Creating and deleting snapshots

EFS:

- ❖ What is EFS
- ❖ Use case does amazon EFS support
- ❖ How instance access efs
- ❖ How to manage EFS
- ❖ How to load data

Snowball:

- ❖ What is snowball
- ❖ How snowball works
- ❖ Use of snowball
- ❖ When to use snowball

Glacier:

- ❖ What is Glacier
- ❖ Benefits of glacier
- ❖ How durable glacier is

Direct Connect:

- ❖ What is direct connect
- ❖ Benefits of Direct Connect
- ❖ How to get start with Direct Connect

ELB:

- ❖ Create an Application Load Balancer
- ❖ Create a Network Load Balancer
- ❖ Create a Classic Load Balancer

Route53:

- ❖ Creating zones
- ❖ Hosting a website
- ❖ Understanding routing policies
- ❖ Weighted simple and failover policies

RDS:

- ❖ Selecting the Database type
- ❖ Configuring the database
- ❖ Creating database
- ❖ Configuring backups
- ❖ Configuring the maintenance windows
- ❖ Connecting to the database

Amazon redshift:

- ❖ What is Amazon Redshift
- ❖ What Amazon Redshift manages
- ❖ How Redshift works
- ❖ Redshift warehouse creation

Cloud Formation:

- ❖ What is cloud formation?
- ❖ Deploying template
- ❖ Create Stack
- ❖ Delete Stack
- ❖ Monitoring the resources

Cloud Trial:

- ❖ What is Cloud trail
- ❖ Benefits of Cloud Trail
- ❖ Use case of Cloud trail

Trust Advisor:

- ❖ Default service limits
- ❖ How to check service limits
- ❖ How to calculate instance

Simple Workflow Service:

- ❖ What is WAF
- ❖ Benefits of WAF
- ❖ Use case of WAF
- ❖ Difference between SQS and WAF

IAM:

- ❖ Creating Users and Groups
- ❖ Applying policies
- ❖ Password Policy
- ❖ Roles
- ❖ MFA
- ❖ Encryption Keys
- ❖ Identity Provider
- ❖ Directory Service

Cloud Watch:

- ❖ Cloud watch dashboard
- ❖ Configuring Monitoring services
- ❖ Configuring actions
- ❖ Creating a cloud watch alarm
- ❖ Getting statistics for ec2 instances
- ❖ Monitoring other AWS services
- ❖ Configuring Notifications

Cloud Front:

- ❖ Use of cloud front
- ❖ Creating a cloud front distribution
- ❖ Hosting a website of cloud front distribution
- ❖ Implementing restrictions
- ❖ Configuring origins and behaviors
- ❖ Integrating cloud watch with Autoscaling

Auto Scaling:

- ❖ Boot strapping
- ❖ Create a launch configuration
- ❖ Create an Auto Scaling group Create a policy
- ❖ load-balanced Amazon EC2 application

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SNS:

- ❖ What is SNS
- ❖ Creating a topic
- ❖ Create subscription

Dynamo DB:

- ❖ Creating a dynamo db.
- ❖ Configuring alarms
- ❖ Adding data manually

Elastic Cache:

- ❖ What is Elastic cache
- ❖ Use of Elastic cache
- ❖ Use cases of Elastic cache
- ❖ How Elastic cache manages

SQS:

- ❖ What is SQS
- ❖ How to configure SQS

- ❖ How SES works

SES:

- ❖ What is SES
- ❖ How to Configure SES
- ❖ How SES work

AWS OPS Work:

- ❖ What is Ops work Stack?
- ❖ Bootstrapping Ec2 With OPS Work Chef
- ❖ What kind of apps ops work support?

Billing Analysis:

- ❖ Cost and Usage report
- ❖ Other reports

Additional Concepts:

- ❖ Resume updating
- ❖ Interview Preparation

TERRAFORM:

Terraform Configuration:

- ❖ Load Order Semantics
- ❖ Configuration Syntax
- ❖ Interpolation Syntax
- ❖ Overrides
- ❖ Resources
- ❖ Data Source
- ❖ Variables
- ❖ Outputs
- ❖ Local Values
- ❖ Modules
- ❖ Terraform
- ❖ Terraform Push(Deprecated)
- ❖ Environment Variables

COMMANDS CLI: -

- ❖ Apply
- ❖ Console
- ❖ Destroy
- ❖ ENV
- ❖ Force-unlock
- ❖ Get
- ❖ Graph
- ❖ Import
- ❖ Init
- ❖ Output
- ❖ Taint
- ❖ Untaint
- ❖ Validate

IMPORT: -

- ❖ Usage
- ❖ Resource Importability

STATE: -

- ❖ Purpose
- ❖ Import Existing Resource
- ❖ Locking
- ❖ Workspaces
- ❖ Remote State
- ❖ Sensitive Data

PROVIDERS:

Major Cloud: -

- ❖ AWS

INFRA STRUCTURE:

- ❖ Chef
- ❖ Docker
- ❖ Helm
- ❖ Kubernetes
- ❖ Terraform
- ❖ Terraform Enterprise
- ❖ Vault

NETWORK:

- ❖ Cloudflare
- ❖ DNS
- ❖ DNSimple
- ❖ DNSMadeEasy

VCS:

- ❖ GitHub

Monitor And System Management:

- ❖ Grafana

DATABASE:

- ❖ MYSQL
- ❖ PostgreSQL

PROVISIONERS:

- ❖ Chef

MODULES:

- ❖ Usage
- ❖ Sources
- ❖ Registry
- ❖ Creating Modules

Plugins:

- ❖ Basic
- ❖ Provider
- ❖ Internals

INTERNALS:

- ❖ Debugging Terraform

Terraform Practical's(Terraform): -

Autoscaling, EC2, ELB, IAM, RDS-MySQL, Route53, VPC

BOTO3 Practical's(Python): -

AMI, DynamoDB, EC2, Lambda, S3