Introduction

Asthra is offering a job-oriented certification program for students to drive their career in a positive direction. Get hired once the course is completed and become a part of the upskill ecosystem.

DEVELOPMENT AND OPERATIONS

Basics of Cloud Computing

detail about what is cloud computing and types ,etc

➡ Introduction

➡ Why Cloud computing ?

➡ Public , Private and Hybrid Cloud

➡ Types of cloud services

➡ Infra as a service

➡ Platform as a service

➡ Software as a service

What is Virtualization?

➤ Virtualization and Cloud computing

➤ Virtualization Terminologies

➤ Types of Virtualization

➤ Hypervisor

➤ Benefits of Virtualization

AWS - Solution Architect Association Certification

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➤ Introduction to the AWS Service

➤ AWS Global Infrastructure

➤ Regions and availability zones

➤ Types of accessing AWS Resources

➤ Signing up for AWS Service

➤ AWS Management console

Identity Access Management

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➤ Introduction to IAM

➤ Components of IAM

➤ Creating and managing Users & Groups

➤ Creating and managing IAM Policies

➤ Roles and its use cases

➤ Multifactor Authentication

Storage in Cloud
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➡ Basics of storage system

➡ Difference between Simple storage S3

➡ Components Of S3

➡ Important properties of S3 Bucket

➡ Managing Logging S3 Bucket

➡ Creating life cycle Management S3

Virtual Private Cloud

➤ Basics of Networking

➤ IP Address and CIDR Block

➤ Concept of Virtual Cloud

➤ Default and Non default VPC

➤ Subnet Concepts

➤ Route Tables

➤ Access Controls List - ACL

➤ Transit Gateway

EC2 Instances

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➥ Basics of Virtual Server

➥ Components of a Virtual Serve

➥ Introduction to AMI - Its Use

➥ Inbound and Outbound rules

➥ Launching & Connecting to Linux

➥ Elastic IP Address

➥ Placement Group

➥ Instance Pricing model

➥ Tenancy Models

➥ Elastic IP Addresses

➥ Key Pair - Why and How

➥ Change instance type

Linux Fundamentals

➡ Introduction to Linux

➡ what is shell and itstypes

➡ Understanding the Boot Order

➡ Linux file directory architecture

➡ Creation of users in different groups

➡ Understanding password aging

➡ Permission management

➡ ACL commands

➡ Apt- cache package managemen

➡ Different commands for Monitoring
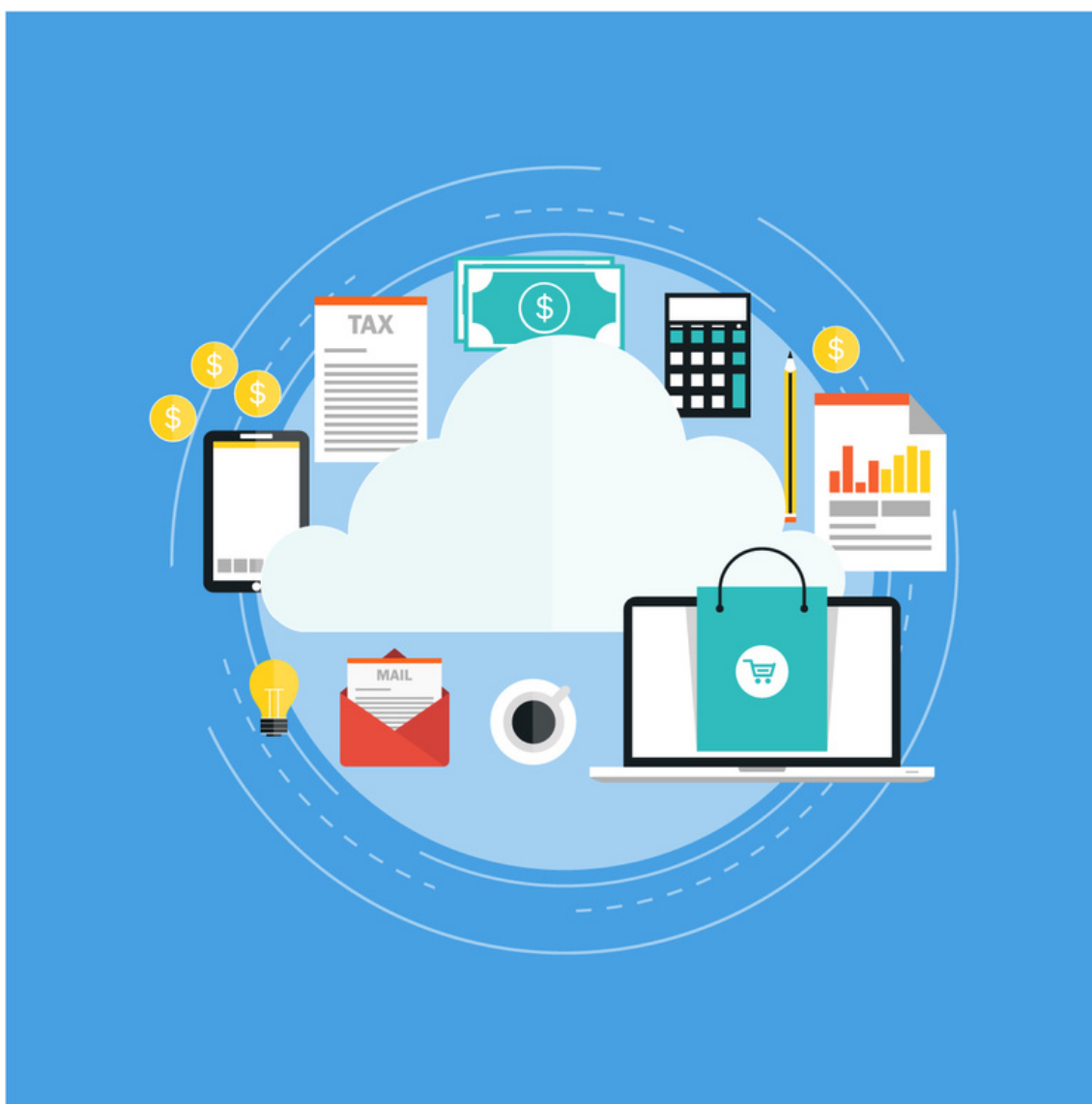
➡ Patch Management

Elastic Block Storage

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➤ Introduction to EBS

➤ Create EBS Volumes

➤ Attach and detach EBS volumes

➤ Creating and deleting snapshots

➤ Snapshot Restoring

➤ Creatingvolumesfrom snapshots
        S3 (SimpleStorageService)

➤ Patch Management

Elastic File System

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➤ Introduction to Elastic File System

➤ Configuration of EFS

➤ Creating and using EFS with Multiple EC2 Instances

Elastic Load Balancer

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➡ Types of Load Balancing

➡ Difference between Horizontal and Vertical Load balancing

➡ Types of Load Balancer in AWS

➡ Use Cases of Load balancers

➡ Important Components of Load Balancer

➡ How Health-Check Works for Load Balancer

Auto Scaling
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➤ Get Started with Auto Scaling

➤ Use Cases of Autoscaling

➤ Important Components of Autoscaling

➤ Create Launch Configuration

➤ Configuration of Autoscaling for
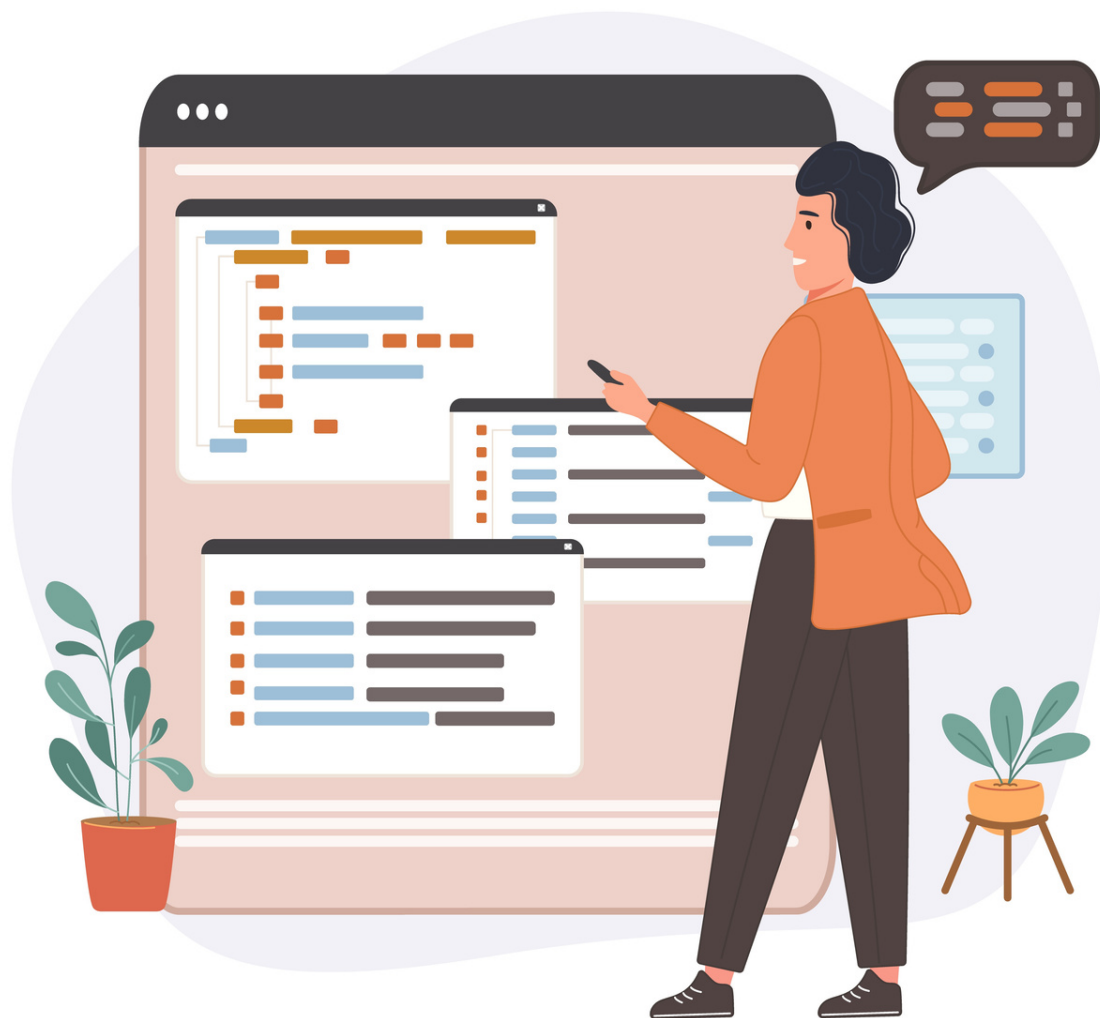multiple instance

➤ Dynamic Scaling

➤ Pricing

Command Line Interface

➤ Introduction to AWS CLI

➤ Setting-Up AWS CLI on local machine

➤ AWS CLI Command Syntax walk through

➤ Working with S3 using CLI

➤ EC2 CLI working with Roles

Cloudwatch
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➤ Important Components of CloudWatch

➤ Creating and Managing metrics in CloudWatch

➤ Creating and Managing Events in CloudWatch

➤ Creating and Managing Dashboards in CloudWatch

➤ Creating and Managing Alarms in CloudWatch

➤ Creating and Managing Logs in CloudWatch

Simple Notification service
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➤ Introduction to Simple Notification Service (SNS)

➤ How SNS Works

➤ Important Components of SNS

➤ Adding Subscriber in SNS

➤ Managing SNS Policy

CloudTrial
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�){ Introduction to CloudTrial

➟ Creating and Managing trails

➟ Settingup trail for Rootlog in
Notification

Relational Database Service (RDS)
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➤ Introduction to RDS

➤ Different database services of AWS: Amazon RDS , DynamoDB , Redshiftetc

➤ Configuring the database

➤ Configuring backups

➤ Configuring the maintenance windows

➤ Connecting to the database

Dynamo DB

➤ Creating a dynamo dB

➤ Adding data manually

➤ Configuring alarms

Cloud Front
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➤ Use of Cloud Front

➤ Creating a cloud front distribution

➤ Hosting a website of cloud front distribution from S3 static website

➤ Implementing restrictions

➤ Configuring origins and behaviours

Route 53

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➤ Introduction to DNS

➤ How DNS Works

➤ Introduction to Route53

➤ Domain Registration in Route53
        Health Checks in Route53

➤ Types of DNS record

➤ Routing Policies in Route53

ELASTICBEANSTALK-EB

➜ Introduction to Elastic Beanstalk

➜ Important Concepts in EB

➜ Getting started with EB

➜ Managing Environments in EB

➜ Managing Applications in EB

➜ EB Platforms

LAMBDA

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➤ Important Components of Lambda

➤ Creating simple function in Lambda

➤ Sample Coder unusing Lambda

➤ Creating and Managing triggers in Lambda

Applications

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➤ SQS

➤ Elastic Transcoder

➤ API Gateway

➤ Kinesis

➤ Web Identity Federation & Cognito

AWS Security Management

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➡ Security Practices for Cloud Deployment

➡ AWS Responsibilities and Securities

➡ Cloud Trail

➡ Trust advisor

AWS Troubleshooting

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➡ Troubleshooting EC2 instance

➡ Troubleshooting using Cloudwatch

➡ Troubleshooting using ELB

➡ Troubleshooting by using Cloudtrail

➡ Troubleshooting by using Cloudfront

Troubleshooting and Price Calculator

➜ AWS Best Practices (Cost+Security)

➜ AWS Calculator & Consolidated Billing

InfraStructure as a code -.

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➤ Understanding what IAAC is

➤ Introduction to Terraform

➤ Component of Terraform

➤ Basics code of Terraform

Organization and Resource Groups (Beginner Level)

➤ What are AWS Organizations

➤ Components of AWS Organizations

➤ Introduction of Resource Groups

➤ Creating and Managing Resource Groups

➤ Managing multiple accounts

Elastic Container Services (ECS)- Beginner

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➥ Intro to Docker

➥ Types ECS-EC2 and Fargate-Elastic Container Services (Beginner)

Devops Fundamentals

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➤ An understanding of Devops and the modern Devops tool sets

➤ The ability to automate all aspects of a modern code delivery and deployment pipeline using:

➤ Source code management tools CVS,Git

➤ Build tools – Apache ant,Maven

➤ Test automation tools – J Unit

➤ Continuous Integration Tools –Jenkins

➤ Configuration management tools Ansibl

➤ Monitoring tools–Nagios or Sonarqub

Tools Used

Our Clients

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and many more............

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