# ACCELERATION TRAINING CENTER



# AWS COURSE SYLLABUS 2022
## Linux + AWS + Devops

## Syllabus I : AWS Solution Architect-Associate Training

### (including Exam Preparation and Lab)

## BASICS OF NETWORKING

- ☐ IP and Its types
- ☐ OSI Model
- ☐ TCP/IP model
- ☐ Internet, Intranet, Ethernet
- ☐ HTTP Error
- ☐ IPV4 and IPV6
- ☐ Router
- ☐ Firewalls
- ☐ Multitasking and multilogin

# BASICS OF LINUX

- ☐ Basics command
- ☐ Operating system
- ☐ What is kernel
- ☐ Different types of shell
- ☐ Types of users
- ☐ How we can access in Linux
- ☐ Packet forwarding
- ☐ Cronjob
- ☐ Giving Root level permission to Normal user
- ☐ How to change default Port of SSh-22
- ☐ Enabling root login in Linux
- ☐ Changing shell from one to another

# FUNDAMENTALS OF CLOUD COMPUTING

- ☐ Introduction to Cloud Computing
- ☐ What Is Cloud Computing?
- ☐ Types of cloud model
    1. IAAS- infrastructure-as-a-service
    2. PAAS- platform-as-a-service
    3. SAAS- software-as-a-service

# INFRASTRUCTURE

## CHAPTER 1- INTRODUCTION TO AWS

☐ Introduction to Amazon Web Services
☐ AWS Global Infrastructure
☐ How to create AWS account
☐ How to set AWS billing budget
☐ What is Support system
☐ What is Region and Availability zone
☐ AWS services.

## CHAPTER 2- AWS IDENTITY AND ACCESS MANAGEMENT (IAM)

☐ Introduction
☐ Types of users in IAM
☐ Authentication
☐ Authorization
☐ Key method
☐ Role method
☐ How to access CLI and GUI

# CHAPTER 3- AMAZON SIMPLE STORAGE SERVICE (AMAZON S3)

- ☐ Introduction
- ☐ Amazon S3 service basics
- ☐ Buckets
- ☐ Data Consistency Model
- ☐ Versioning
- ☐ Amazon S3 Advanced features
- ☐ Amazon S3 Storage Tiers/Classes
- ☐ Life cycle policy
- ☐ Cross region replication
- ☐ Security

# CHAPTER 4- AMAZON ELASTIC COMPUTE CLOUD (AMAZON EC2)

- ☐ Introduction
- ☐ Ec2- elastic compute cloud
- ☐ Elastic IP
- ☐ Public IP
- ☐ Private IP
- ☐ Different different Operation System
- ☐ EBS- Elastic block storage
- ☐ EFS- Elastic file system
- ☐ Bootstrapping

# CHAPTER 5- AMAZON VIRTUAL PRIVATE CLOUD (AMAZON VPC)

☐ Introduction
☐ Subnets
☐ Route table
☐ Internet Gateway
☐ Nat Gateway
☐ Dynamic host configuration protocol (DHCP)
☐ Elastic IP addresses (EIPs)
☐ Elastic Network interfaces (ENIs)
☐ VPC Peering
☐ Security group
☐ Network access control list (NACL)

# CHAPTER 6- ELASTIC LOAD BALANCING

☐ Introduction
☐ Application load Balancer
☐ Network Load Balancer
☐ Gateway Load Balancer
☐ Classic Load Balancer
☐ Understanding High Availability

# CHAPTER 7- AUTOSCALING GROUP

- ☐ Introduction
- ☐ Features
- ☐ Advantage
- ☐ Manual Scaling
- ☐ Dynamic Scaling

# CHAPTER 8- DOMAIN NAME SYSTEM (DNS) AND ROUTE 53

- ☐ Introduction
- ☐ DNS Resolution
- ☐ Route 53
- ☐ Root level domain
- ☐ Basic networking command

# CHAPTER 9- CLOUD WATCH

- ☐ Introduction
- ☐ Understanding CloudWatch
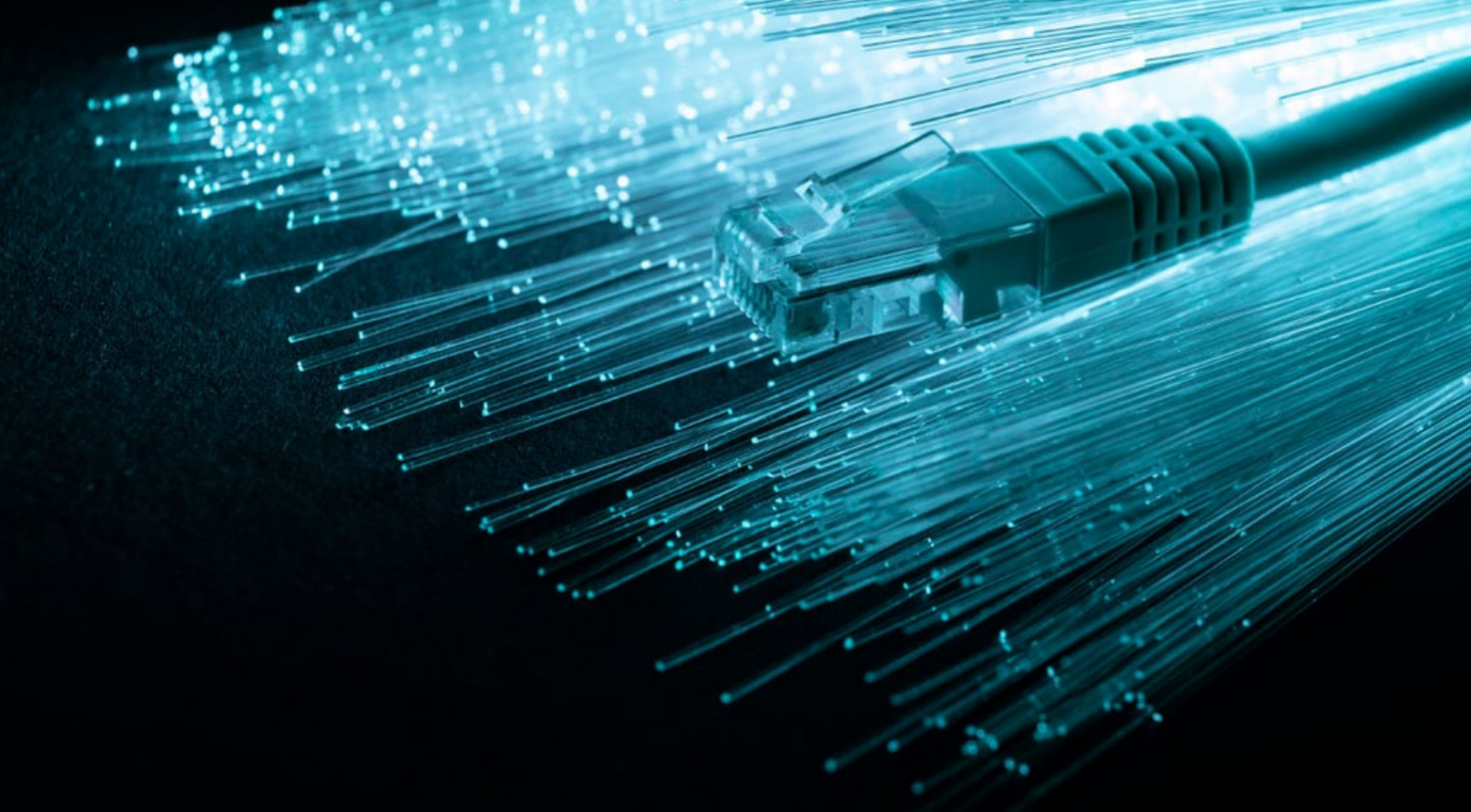- ☐ How to monitoring

# CHAPTER 10- AWS LAMBDA

☐ **Introduction**
☐ **Getting started with AWS Lambda**
☐ **How to create function**
☐ **Triggering**

# CHAPTER 11- AWS ELASTIC BEANSTALK

☐ **Introduction**
☐ **Learn about platform**
☐ **Manage application**

# CHAPTER 12- CLOUD FORMATION

☐ **Introduction**
☐ **Create Instance**
☐ **VPC Stack formation**

# CHAPTER 13- RELATIONAL DATA BASE (RDS)

☐ **Introduction to Relational Databases**
☐ **What is SQL and NOSQL**
☐ **Creating our first database structure in MySQL**

# CHAPTER 14- CLOUD FRONT

☐ **Introduction**
☐ **What is content delivery**
☐ **With CDN And Without CDN**

# DEVOPS

- **Chapter 1 – Git & GitHub**
- **Chapter 2 – CI/CD pipeline**
- **Chapter 3 – Jenkins**
- **Chapter 4 – Maven**
- **Chapter 5 – Ansible**
- **Chapter 6 – Kubernetes**
- **Chapter 7 - Docker**

## 100% PLACEMENT ASSURANCE