



## **Our Vision:**

To provide better training by full filing the requirements of our trainee.

# **Our Mission:**

We always ensure to give practical based training. And we make the candidates to get good hands-on experience on any platform.

# Philosophy:

Our Root Level Training Will give you Better Growth.

We successfully survived around 5 years in the IT field. Started this is as small Training room. But now we are having 5 branches across India. Type your text

Certified Trainers taking the session on various domain with any level of doubts clarification.

Type your text

## **AWS Real Time Projects Training -COURSE CONTENT**

#### **Section 1: IAM**

- ❖ My Client, Swiggy wants to administrate their Technical Engineers as follows. They have team such as Developers, Database Admins, Linux Admins and Storage Admins. All the teams should be in two levels like L1 & L2.
- ❖ During CAB Call we confirmed with SDM Manager, their requirements is to have a "Team Leaders" group to manage all the teams. Ensure only Team Leaders group can do this User Management.
- ❖ My Client need Common File Repository, everyone can access that File Repository. But no one should delete that file repository, even Storage Admins also. S3 Custom policy.

#### Section 2: EC2

- ❖ My Client, Nokia needs a Windows Server for Data Storage. So Launch a Server with three Additional Volumes. Volume capacities should be 10GB, 7GB, & 5GB. Duplicate the Data of 5GB disk into 8GB disk of Second Server. In that Server, Enable Remote and Web Service from anywhere. Also make the Second Server can reach any Destination point
- ❖ My Clients needs a Webserver with separate volumes for OS & Data storage. Webpage Sources should be stored under the Data Volume. Webserver should be accessed by a Static Public IP. Also they need a backup for this Webserver and ensure at any situation they can switch their Webserver to any Location.

#### Section3: S3

❖ My Clients, needs two common storage places to store Files& Folders. One container can access by both users & services, another container can access by services& not by users. Both the containers should control by Policies to grant access. One container should not overwrite any files at any time and container should have life cycle stages based on frequency of usage. Another container should have MFA&KMS key Encryption.

- Client hosted a website in S3, they need to integrate with API gateway. Static site has been configured in HTML, CSS, Java Script. In API gateway we need to add multiple resources with HTTP methods.
- ❖ Client wanted to securely protect their data with KMS encryption, Activity has been scheduled for getting a list of S3 buckets which are not encrypted, and we need to use KMS/CMS key to encrypt the S3 bucket and Objects In S3

#### Section4: VPC

- ❖ My Client, TVS wants to launch their Websites publicly along with its Database Servers at the backend. Establish network connectivity between Webservers & Database Servers. Note: No need of Public Access for Database Servers Ensure Only Websites can access from Public Network.
- ❖ My Client wants to two different networks in two different regions. In one network, both sub networks should have internet access But, in another networks, one sub networks should have

internet access other sub networks should not have internet access. Establish network connectivity between two different networks.

- ❖ My Client wants to launch their Web Server publicly and Database Server get the internet access by using privately. Need security rules allow to both Web service and DB service and deny all other rules to both services.
- ❖ My client frustrated to understand the VPC peering connections, there are more than 10 VPC peering available. Finally cloud architect came up with idea to migrate all VPC peering into Transit Gateway to minimise the complexity and connections. As of now in client network they are using three regions i.e us-west-2, us-east-1, eu-central-1. Each region has one VPC, we need to centrally keep transit gateway to connect all three VPC's.

#### Section5: Load Balancer

- ❖ My Clients needs a Web service should run with High Availability, and access publicly with below requirements, (Elastic Load Balancer)
  - o 1 VPC with 2 subnets on different AZ
  - AWS Amazon Linux Instance with Apache configuration
  - HTTP port should be opened
  - Health check TCP 80

My Client requirement is run Web service and Data base service with High Availability, and clients should access both the services publicly. (Application Load Balancers)

- o 1 VPC with 2 subnets on different AZ
- Apache and MySQL Service
- Two different Target groups
- Health check TCP 80

## **Section6: Auto Scaling**

❖ My Clients wants to Web services with Automatic Redundancy, if CPU utilization increases above 80%,it should increase by 2 servers, if CPU utilization decrease below 80%,it should decrease by 2 servers, the servers are Scale Up and Scale Down automatically. During Scale Up and Scale Down, Monitoring team should get alerts via Email notification.

#### Section7: Route 53

❖ In my client environment more than 100 servers are from same VPC. They wanted to have same DNS IP for all server. Majorly client they have centralized DNS private zone where they have all of their records. Whatever the record they have it in the private zone it should be resolved by all the servers whoever there in this VPC.

#### Section8: Lambda

One of our Banking client asked me to setup a DR to their critical servers with below requirements

- o RTP Restore Time Objective 30 mins Downtime
- o RPO Restore Point Objective 4hrs recent data
- o Critical servers should be identified using tags

**Technical Terms:** Python, Boto3, Cloud Watch rule as Trigger, IAM role Lambda to Ec2, Lambda

- In our organization there are 100 developers are there, each developer using three servers (1. Stage server, 2. Prod/DB Server, 3. App Server). During CAB call SDM discussed for cist cutting. So, except Production server they wanted to stop STG & APP serves during weekend.
  - o Developers won't be available Saturday and Sunday
    - Auto Shutdown Friday 8PM
    - Auto Start Monday 8AM

#### **Section9: Cloud Formation**

- My client planning to have multiple AWS accounts, future they have plan integrate all the AWS Accounts with AWS Organizations server. But as of now they want to keep CFT for VPC build with following requirements,
  - o VPC, Subnet
  - o Route Table
  - Internet Gateway
  - ACL policy
  - o Ec2 Instance

My client has multiple AWS accounts, now they want to keep CFT for EC2 instance with Elastic IP address build with following requirements,

- o EC2 Instance
- o Security group
- o Elastic IP Address
- o New Key Pair

### Section10: EKS kubernetes:

❖ One of client BMW they planned to create to move their applications from AWS Ec2 instances to AWS EKS clusters PODS. They need EKS Cluster with below requirements,

Institution

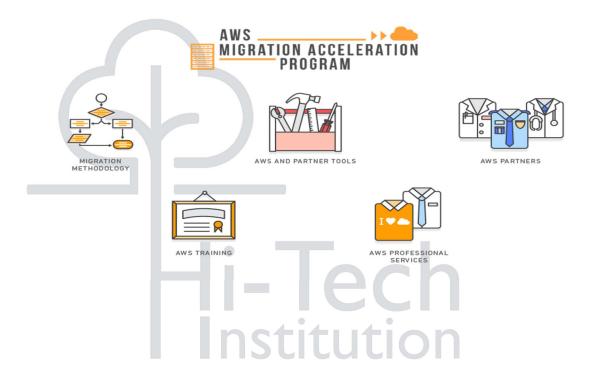
- o EKS Cluster with Min two Two Nodes
- o Cluster maximum size 5 nodes
- Node group name "BMW-NG"
- o They wanted to host 4 PODS'

# **Section11: Cloud Migration:**

One of my clients running their infrastructure in on-prem as Hyper-v virtual server. They wanted to migrate to AWS Cloud as EC2 Instance. As discussed in CAB call by SDM he shouldn't face must down time also they never okay with data loss.

Almost 100 critical servers are running as VM's all are using VHDX disk format.

On-prem network has VPN also they have Public Access.



# Section12: AWS Overall Task using AWS Organizations Service:

❖ One of client YES Bank they have multiple AWS account for PROD, SB, Test, APP, DB, Networking. They planned to consolidate into a single master account which should meet below requirements.

- Need to setup a Payroot account
- Billing should me managed centrally
- Need to organize as a master account & remaining account in OU's
- Need to secure the account with SCP policies.







