INTERNSHIP-AWS

Objective:

The primary objective of this internship task is to provide hands-on experience with various **Amazon Web Services (AWS)**,enabling the intern to understand and implement key AWS services such as **Amazon EC2,S3,IAM,CloudWatch, Lambda,RDS** etc.

The goal is to equip the intern with practical knowledge in deploying, securing, and managing cloud-based applications and resources using AWS and to help the intern understand how to architect,automate and optimize solutions in the AWS cloud.

Task 1

Web Hosting using Amazon S3

- Set up a simple static website using **Amazon S3** as the hosting platform.

- The website should include basic HTML,CSS and JavaScript files and will be publicly accessible over the internet.

- Configure an S3 bucket to store public images while keeping other files private?Explain how you would set appropriate permissions.

Task 2

Setting Up LVM on EC2 with Multiple EBS Volumes

- You are given an **AWS EC2** instance running a Linux-based OS (Eg:Ubuntu or CentOS).
- Generate volumes using **AWS EBS** and attach the same with the EC2 instance for storing application data,logs and user uploads.
- You need to implement a LVM of 14GB and 6GB on these EBS volumes to create a logical volume setup that can be expanded as the application's storage needs grow.
- You have been working with an LVM setup on an EC2 instance.Initially, you created a volume group (VG) and several logical volumes (LVs) inside it to manage your data. However, due to changes in requirements,you now need to reverse the LVM setup.How do you remove the LVM setup and revert back to traditional partitioning on the physical disk.

Task 3

Creating and Launching an EC2 Instance from an AMI

- Perform a research on **Amazon AMI** service and create an image.Launch an instance from the created AMI.

- Understand the concept of "**Instance from a template**" and launch an instance using the created template.

Task 4

Automating EC2 Instance Lifecycle with AWS Lambda

- Your organization requires automated management of **AWS EC2** instances.The task is to automate the starting,stopping and termination of EC2 instances using **AWS Lambda** functions.

Task 5

VPC Peering for Cross-Account Communication

- Your organization is deploying applications across two AWS accounts with the same region.Both the applications are in **ap-south-1** (Region A) across both the accounts.

- To ensure that these applications can interact without exposure to the public internet using **AWS VPC** and you need to set up **VPC Peering** between the VPCs in both accounts.

- You are tasked with configuring the VPC Peering connection and enabling secure communication between the two VPCs.