Notes:

I hosted a Dynamic Website on AWS for a DevOps project and utilized the following resources. I have created a GitHub repository with the reference diagram and deployment scripts. Please use this information to create a readme file for the project.

1. I configured a Virtual Private Cloud (VPC) with both public and private subnets that spanned two availability zones.

2. I deployed an Internet Gateway to enable connectivity between the VPC instances and the wider internet.

3. I established Security Groups to serve as a network firewall mechanism.

4. I leveraged two Availability Zones to increase system reliability and fault tolerance.

5. I used Public Subnets for infrastructure components like the NAT Gateway and Application Load Balancer.

6. I implemented EC2 Instance Connect Endpoint for secure connections to assets within both public and private subnets.

7. I placed web servers (EC2 instances) within Private Subnets for enhanced security.

8. I allowed instances in both the private Application and Data subnets to access the Internet via the NAT Gateway.

9. I hosted the website on EC2 Instances.

10. I used an Application Load Balancer and a target group for evenly distributing web traffic to an Auto Scaling Group of EC2 instances across multiple Availability Zones.

11. I utilized an Auto Scaling Group to automatically manage EC2 instances, ensuring website availability, scalability, fault tolerance, and elasticity.

12. I secured application communications using a Certificate Manager.

13. I configured Simple Notification Service (SNS) to alert about activities within the Auto Scaling Group.

14. I registered the domain name and set up a DNS record using Route 53.

15. I used S3 to store application codes.