Hosting an HTML Website on an EC2 Instance

1. VPC with public and private subnets in 2 availability zones.
2. An internet Gateway is used to allow communication between instances in VPC and the internet.
3. Security groups for firewall.
4. Used 2 Availability Zones for high availability and fault tolerance.
5. Resources such as Nat Gateway, Bastion Host, and Application Load Balancer use Public Subnets.
6. Put the webservers in the Private Subnets to protect them.
7. The Nat Gateway allows instances in the private App subnets and protects them.
8. Used EC2 instances to host the website.
9. Application Load Balancer is used to distribute web traffic across an Auto Scaling Group of EC2 instances in multiple AZs.
10. Used Auto Scaling Group to dynamically create our EC2 instances to make our website highly available, scalable, fault-tolerant, and elastic.
11. Used Route 53 to register our Domain name and create a record set.
12. Used an S3 bucket to store our web files.
13. Once the website is installed on the EC2 instance, the EC2 instance is used to create an AMI.

This is the script:

#!/bin/bash

sudo su

yum update -y

yum install -y httpd

cd /var/www/html

wget <https://aosnotes-website-project2.s3.us-east-2.amazonaws.com/xmen-main.zip>

unzip xmen-main.zip

cp -r xmen-main/\* /var/www/html

rm -rf xmen-main xmen-main.zip

systemctl enable httpd

systemctl start httpd

Here is the architecture diagram for this project:

