AWS Lab 7

Configure Apache Web Server using Userdata and Vertically Scaling EC2 Instance

Overview of the Lab

In this lab you will learn how to use userdata to configure apache web server in EC2 linux instance and how to change the instance type

User data

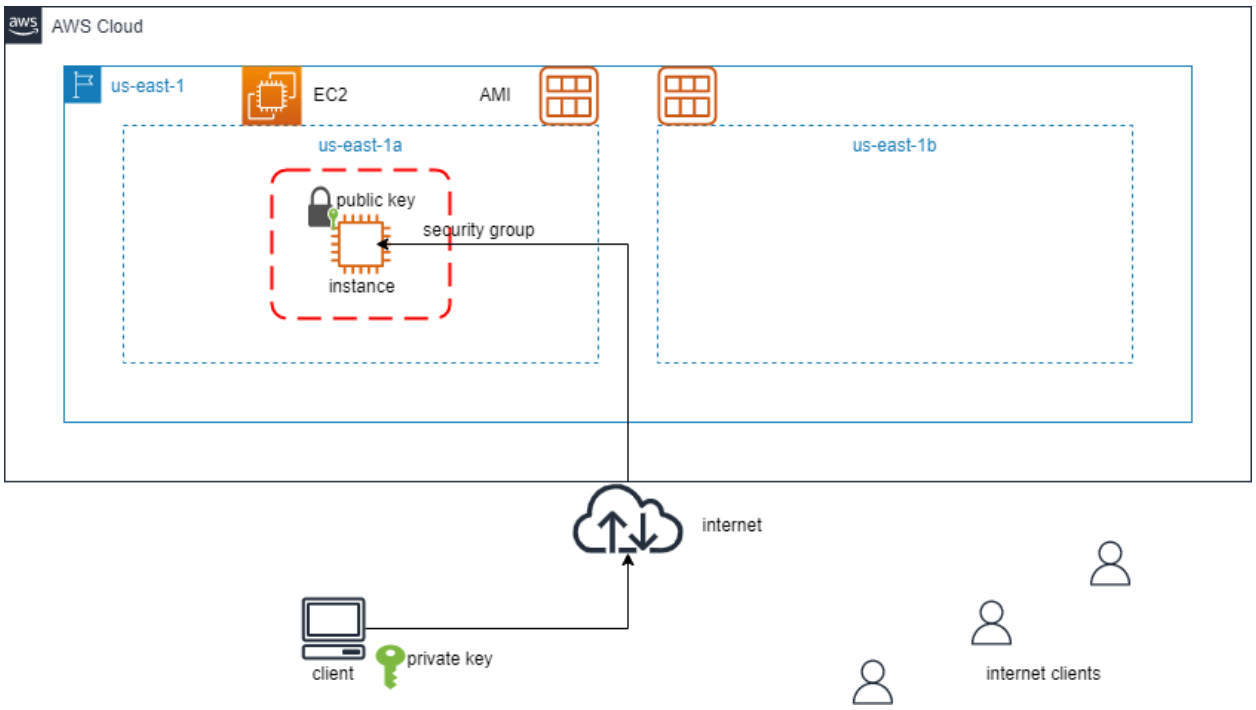
Script which can be used at the time of launching instance

Scaling

Two types of scaling

- Vertical Scaling - increase the capacity or decrease the capacity of instance
- Horizontal Scaling - adding no of instance(s) or removing no of instance(s)

Architecture of the Lab



Step by Step Lab

Launching linux instance with userdata and configure apache web server

1. Login to aws cloud account via the aws management console
2. Select us-east-1 region (you can choose any region of your choice)
3. Search for EC2 and in EC2 management console, launch instance
    3.1. Name and tag – linux-webserver
    3.2. Application and OS Images – Red Hat
    3.3. Instance type - t2.micro

3.4. Key pair – select the existing keypair

3.5. Edit Network settings

a. Subnet – subnet in us-east-1a (even no preference is fine)

b. Firewall – select existing security group

4. In Advanced Details(scroll down to bottom), copy the below bash script in userdata section

```
#!/bin/bash
dnf install httpd git -y
systemctl start httpd
systemctl enable httpd
git clone https://github.com/jerrish/site_particles.git /var/www/html .
```

5. Number of instances - 1

(Leave all other settings as default and launch instance)

6. Once the instance is launched

6.1 Wait for instance state – running

6.2 Try accessing the website

Change the instance type from t2.micro to t3.micro (only in us-east-1 region)

1. Select the instance, in Instance state - Click stop instance
2. Once the instance is stopped, again select instance, go to Actions, in Instance settings click on change instance type, select t3.micro and apply
3. Select the instance, in Instance state - Click start instance
4. Once the instance is launched
    a. Wait for instance state – running

b. Try accessing the website with new public IPv4 DNS name

Clean Up Step

1. Select the instance and terminate it