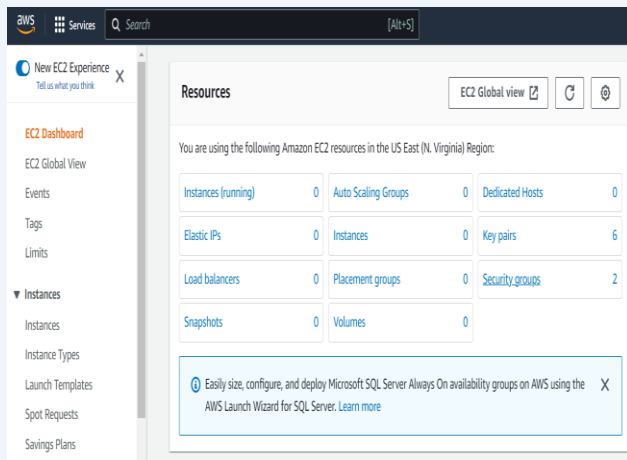


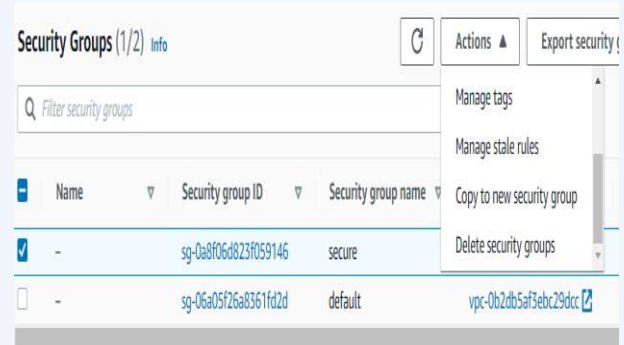
Assignment No. 9

DEPLOY A PROJECT FROM GITHUB TO EC2 BY CREATING NEW SECURITY GROUP AND USER DATA

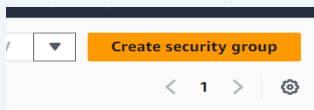
1. Visit aws.amazon.com and Sign in. Go to EC2 Service and click on “Security Groups”



2. Select all security groups except the default and go to Actions dropdown menu and choose “Delete security groups”



3. Click on “Create security group”. Enter the “Security group name” and “Description”



Create security group

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To

Basic details

Security group name

MyWebServerGroup

Name cannot be edited after creation.

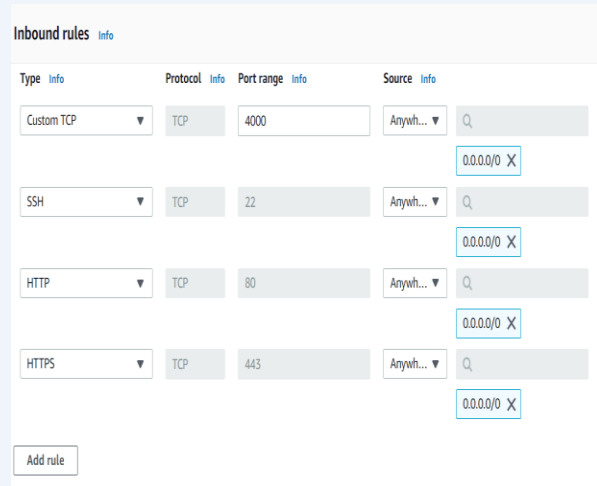
Description

Allows SSH access to developers

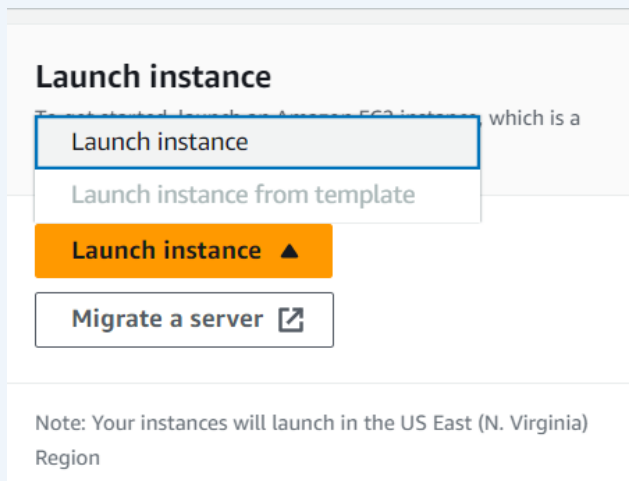
VPC

vpc-0b2db5af3ebc29dcc

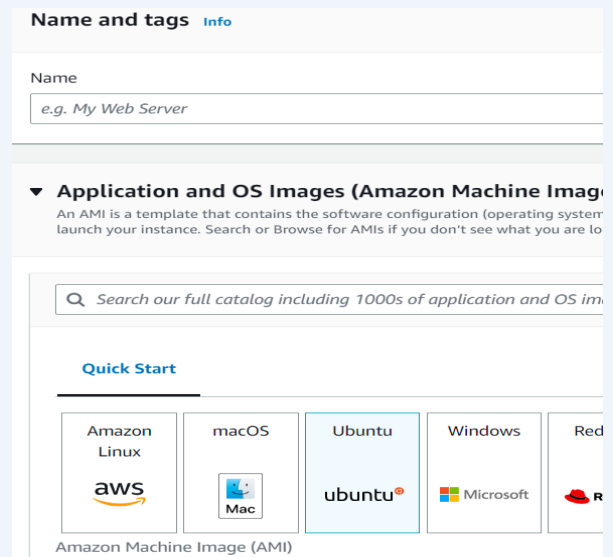
4. Add the Inbound rules with details as shown in the figure. After entering the details click on “Create security group”



5. Go to EC2 dashboard and Click on "Launch Instance"



6. Enter the instance name and select Ubuntu as Amazon Machine Image



7. Select key pair

▼ Key pair (login) Info

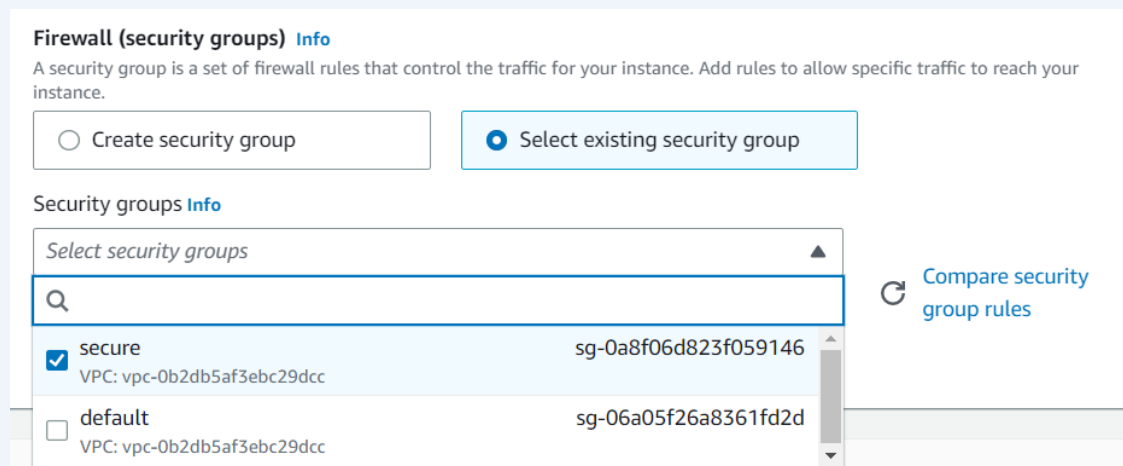
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Select ▼

↻ Create new key pair

8. Under network settings ,click on "Select existing security group" and in the security group dropdown select the security group which you just created



9. Type the following user data under advanced details section. Then click on create instance.

User data - optional [Info](#)

Enter user data in the field.

```
#!/bin/bash
apt-get update
apt-get install -y nginx
systemctl start nginx
systemctl enable nginx
apt-get install -y git
curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -
apt-get install -y nodejs
git clone https://github.com/hiteshperiwal/hello1.git
cd ...
npm install
node index.js
```

10. Now using the public ip address of the instance and the corresponding port number of the project, we can access the project.

← → ↻ ⚠ Not secure | 54.81.120.19:4000

Hello MCKVIANS

11. However for certain machines the project will not be accessible directly. To access the project, go to instance and click on connect and again click on connect

⌂ Connect Instance state ▾ Actions ▾

Private IPv4 addresses
172.31.93.61

Public IPv4 DNS
ec2-54-81-120-19.compute-1.amazonaws.com | [open address](#)

ser name, use the default user name,

your AMI usage instructions to

Cancel Connect

12. Now type the following commands in the terminal. Keep the repository url and the github personal access token ready as they will be required in these commands

```
ubuntu@ip-172-31-93-61:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
ubuntu@ip-172-31-93-61:~$ npm -v
9.5.1
ubuntu@ip-172-31-93-61:~$ node -v
v18.16.0
ubuntu@ip-172-31-93-61:~$ git clone https://github.com/hiteshperiwal/hello1.git
Cloning into 'hello1'...
Username for 'https://github.com': hiteshperiwal
Password for 'https://hiteshperiwal@github.com':
```

```
ubuntu@ip-172-31-93-61:~$ ls
hello1
ubuntu@ip-172-31-93-61:~$ cd hello1/
ubuntu@ip-172-31-93-61:~/hello1$ npm install
```

```
ubuntu@ip-172-31-93-61:~/hello1$ node index.js
Started server
```

13. Now using the public ip address of the instance and the corresponding port number of the project, we can access the project. Hence the project is successfully deployed from github to EC2 using new security group and user data

← → ↻ ⚠ Not secure | 54.81.120.19:4000

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