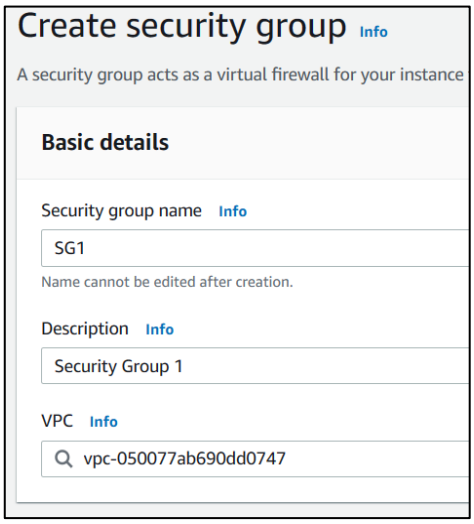
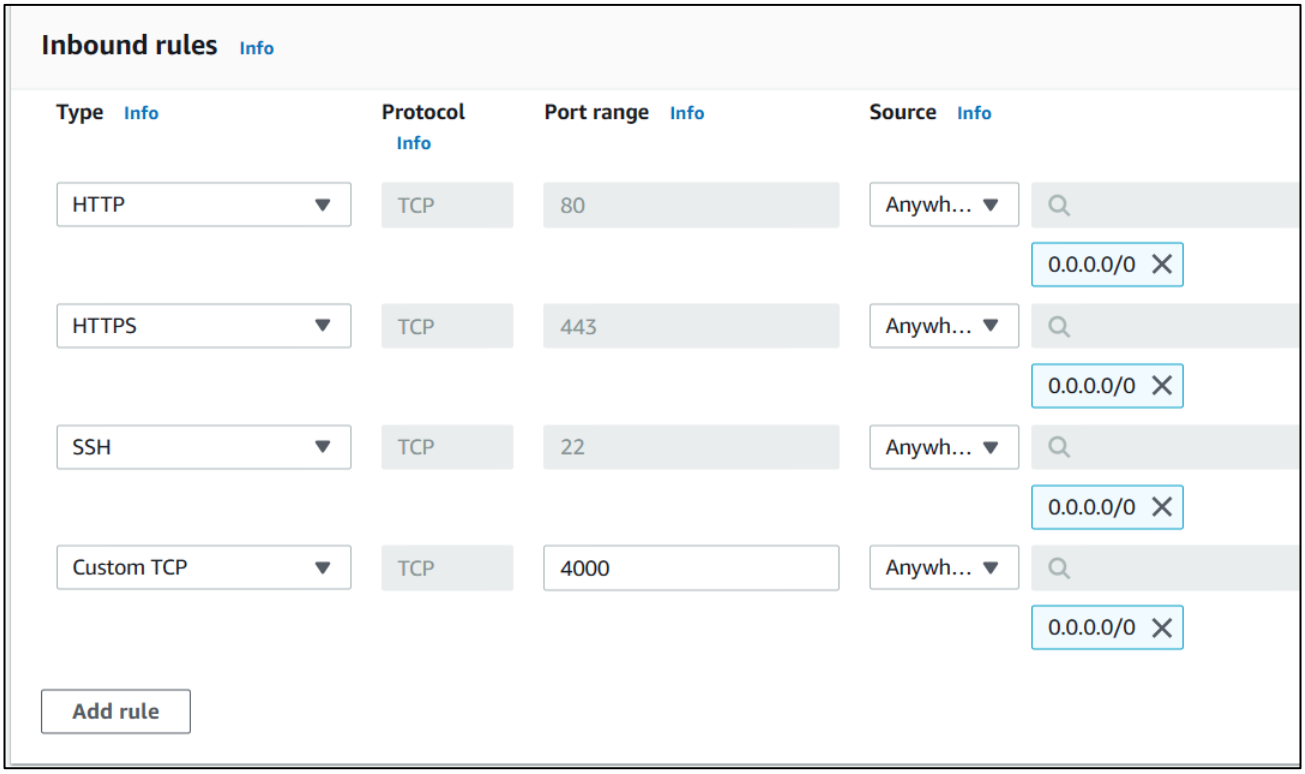
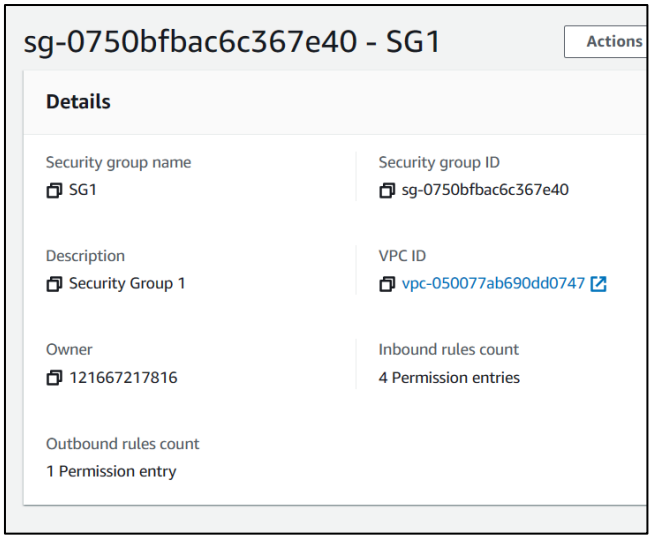
Assignment 10: Deploy a project from GitHub to EC2 by creating new Security Group and user data.

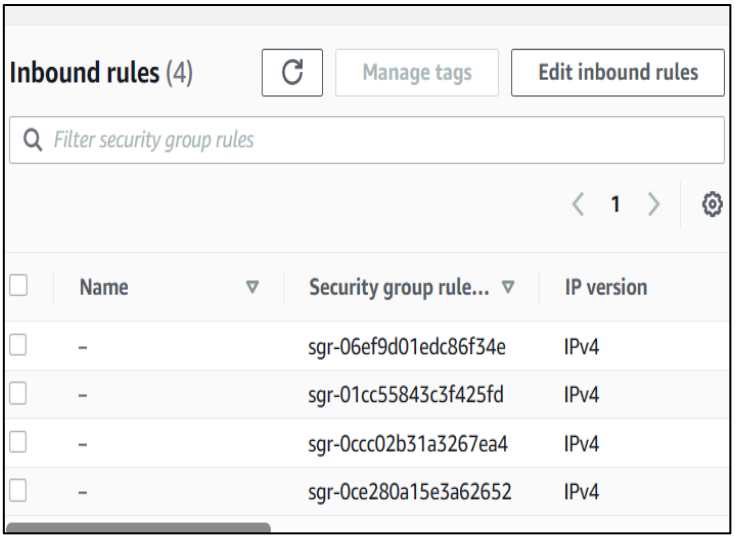
1. Open **AWS** and **GitHub** in two browsers.
2. In AWS, go to the left side panel of EC2 and go to **Security Groups**.
3. Delete all security groups except the default one. Click on **Create security group**.
4. Give the security group **name** and **description**.



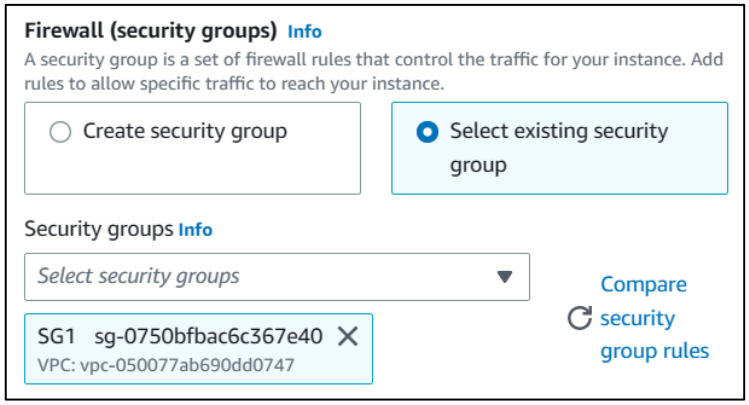
5. Go to **Inbound rules** and set the HTTP, HTTPS, and SSH rules. Set another Custom TCP rule with Port Range **4000**. Create the security group.





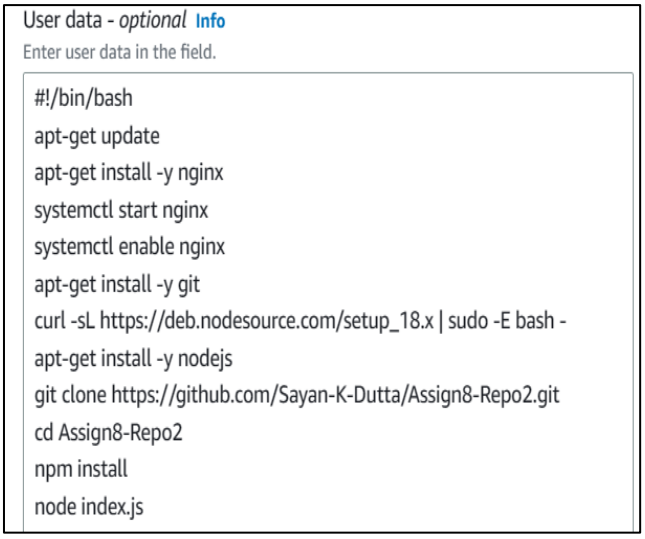


6. Now go to **Instances** and click **Launch instance**. Give the name of the instance and select OS as **ubuntu**.
7. Create a key pair and scroll down to **network settings**. Click on **Select existing security group**. Select the security group created.



8. Now go to **Advanced Details**, scroll down and enter the **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/Sayan-K-
Dutta/Assign8-Repo2.git
cd Assign8-Repo2
npm install
node index.js
```



9. Now click on **Launch instance**.
10. Select the instance and click **connect**.
11. In the terminal of EC2 instance connected execute the commands:

```
git clone https://github.com/Sayan-K-Dutta/Assign8-Repo2.git
cd Assign8-Repo2
npm install
node index.js
```

(Give the username and password when prompted. Username is the GitHub user name and password is the token.)

```
ubuntu@ip-172-31-26-3:~$ git clone https://github.com/Sayan-K-Dutta/Assign8-Repo2.git
Cloning into 'Assign8-Repo2'...
Username for 'https://github.com': Sayan-K-Dutta
Password for 'https://Sayan-K-Dutta@github.com':
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
ubuntu@ip-172-31-26-3:~$ cd Assign8-Repo2
ubuntu@ip-172-31-26-3:~/Assign8-Repo2$ npm install
npm WARN deprecated uuid@3.4.0: Please upgrade  to ve
ic.  See https://v8.dev/blog/math-random for details

added 258 packages, and audited 259 packages in 14s
ubuntu@ip-172-31-26-3:~/Assign8-Repo2$ node index.js
Started server
```

12. Open the Public IPv4 Address with its custom port number of the instance connected, in a web browser.