

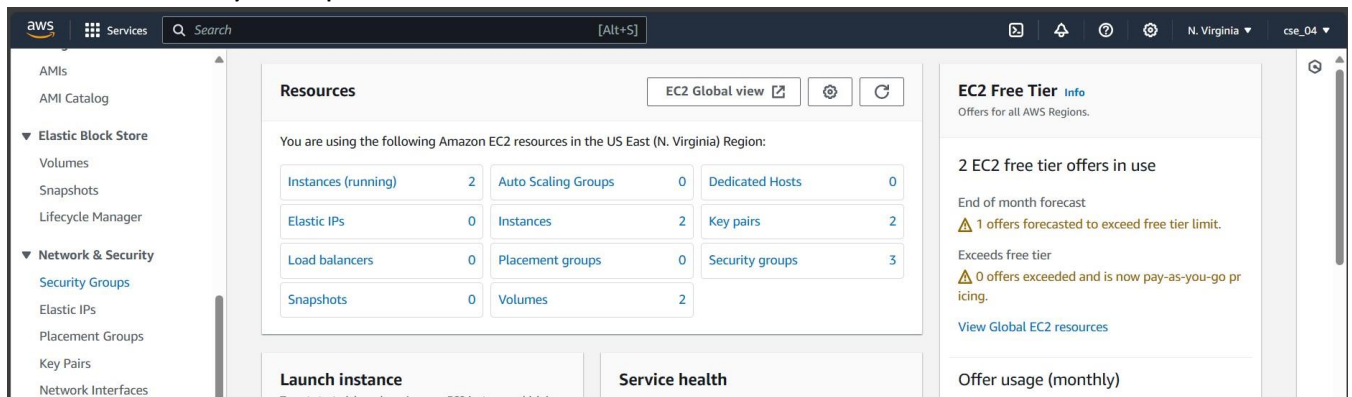
# Assignment No: 10

## Problem Statement:

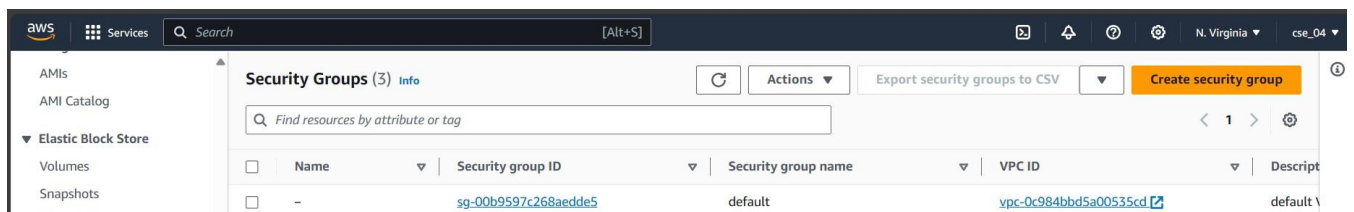
Deploy a project from GitHub to EC2 by creating a new security group and user data.

## Steps:

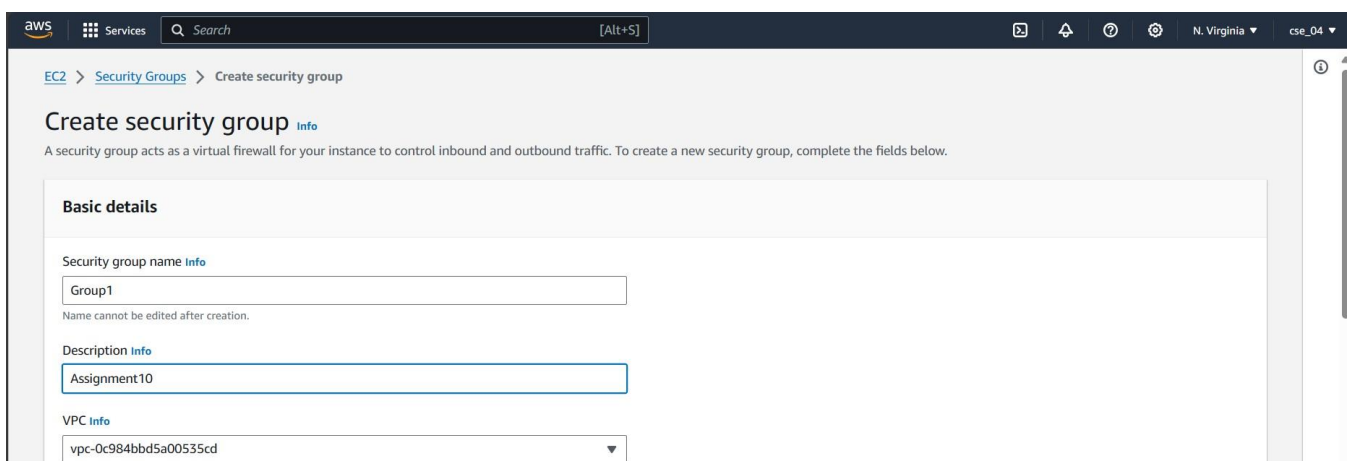
1. Access your AWS console and search for EC2, then proceed to click on the first option. Now, Click on "Security Groups".



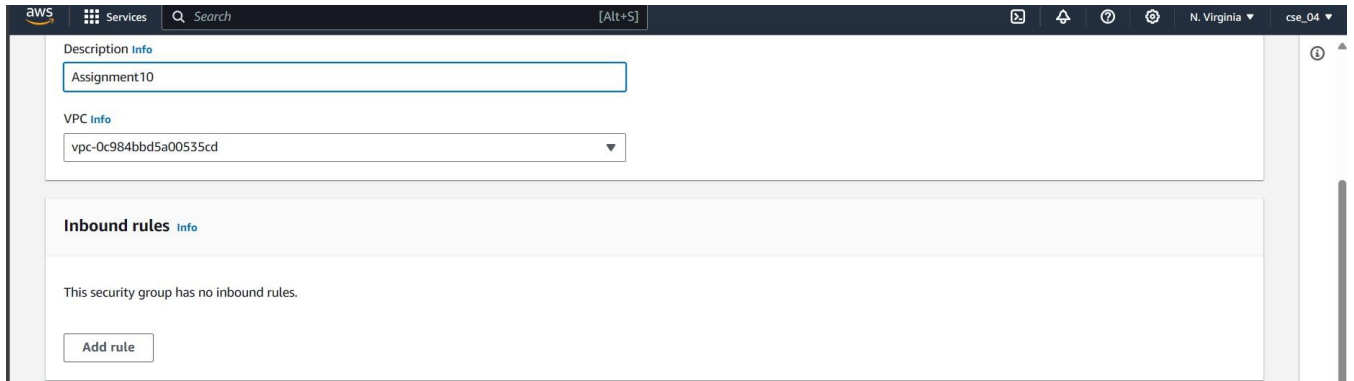
2. Now click on **Create Security Group**.



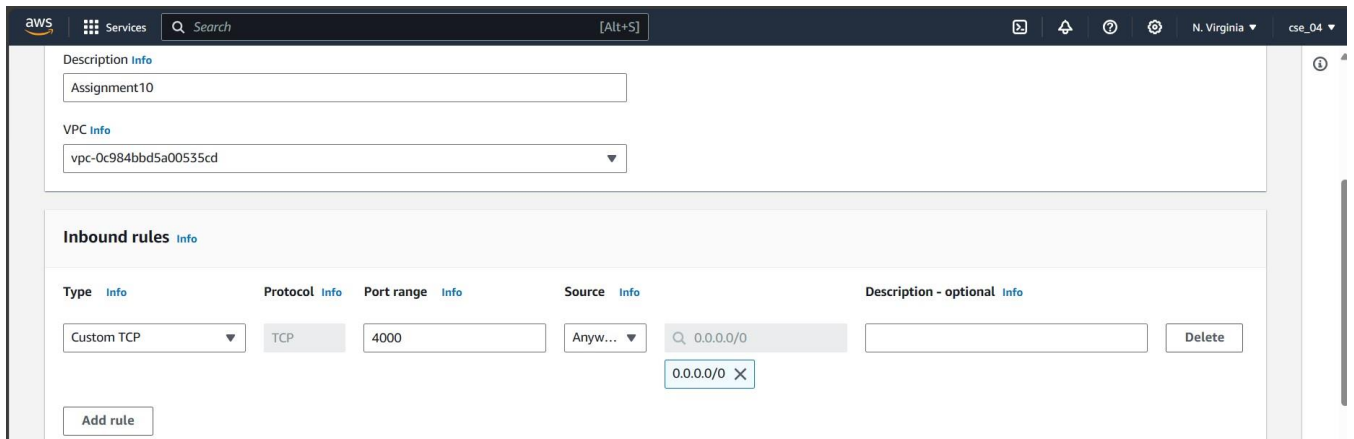
3. Fill up the **name** and **description** of the **security group**.



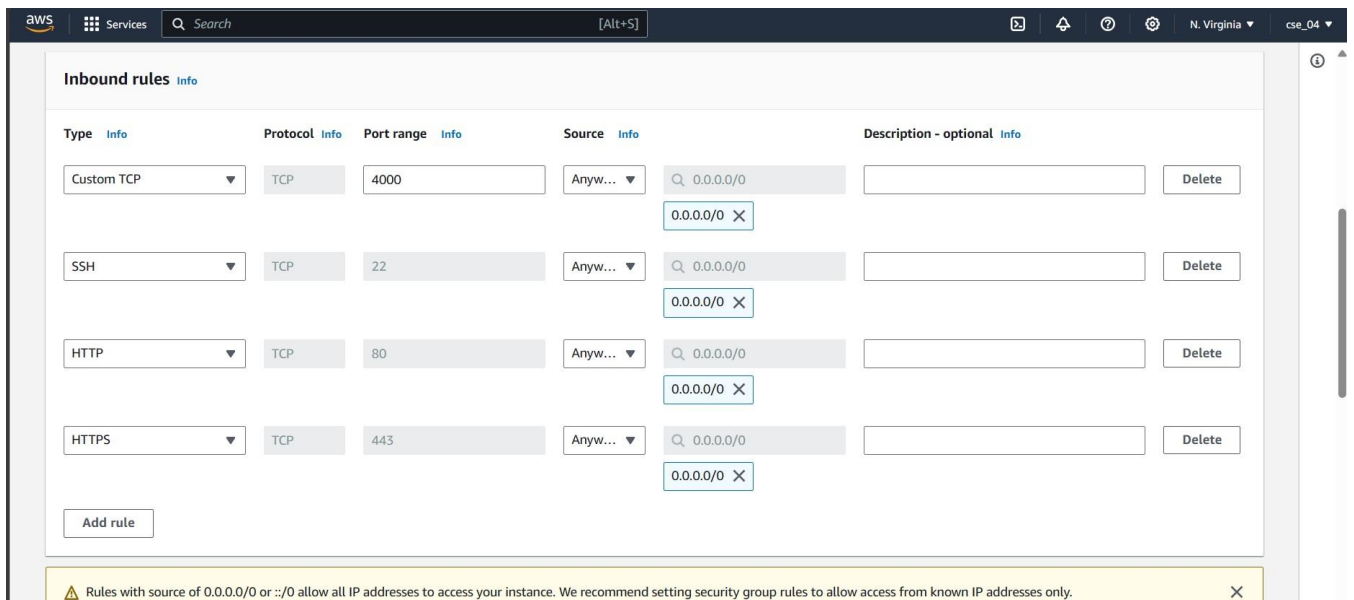
4. Now, scroll down to **Inbound Rules** and click on **Add rule**.



5. Set the **port number** as 4000 and select first option in **CIDR blocks** i.e. "0.0.0.0/0".



6. Click on **Add rule** again and set type as **SSH** and select first option in **CIDR blocks**. Repeat this two more times and add rules of type **HTTP** and **HTTPS**.



7. Click on **Create security group**.

**Tags - optional**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with the resource.

[Add new tag](#)  
You can add up to 50 more tags

[Cancel](#) [Create security group](#)

8. Now, go to EC2 dashboard and click on **Launch instance**.

aws Services Search [Alt+S] N. Virginia cse\_04

EC2 Dashboard EC2 Global View Events Console-to-Code Preview

▼ Instances  
Instances  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances  
Dedicated Hosts  
Capacity

Security group (sg-0813fdb01d9a45c3e | Group1) was created successfully

Details

EC2 > Security Groups > sg-0813fdb01d9a45c3e - Group1

sg-0813fdb01d9a45c3e - Group1 [Actions](#)

**Details**

Security group name Group1	Security group ID sg-0813fdb01d9a45c3e	Description Assignment10	VPC ID vpc-0c984bbd5a00535cd
Owner 339712803786	Inbound rules count 4 Permission entries	Outbound rules count 1 Permission entry	

9. Fill up the **instance name** and select **Ubuntu** as the AMI.

aws Services Search [Alt+S] N. Virginia cse\_04

Name and tags Info

Name  
Sia98374 [Add additional tags](#)

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux

Browse more AMIs  
Including AMIs from AWS, Marketplace and the Community

▼ Summary

Number of instances Info  
1

Software Image (AMI)  
Canonical, Ubuntu, 22.04 LTS, ...read more  
ami-080e1f13689e07408

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

[Cancel](#) [Launch instance](#)  
[Review commands](#)

10. Select an **existing key pair** or create a new one.

aws Services Search [Alt+S] N. Virginia cse\_04

▼ 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.

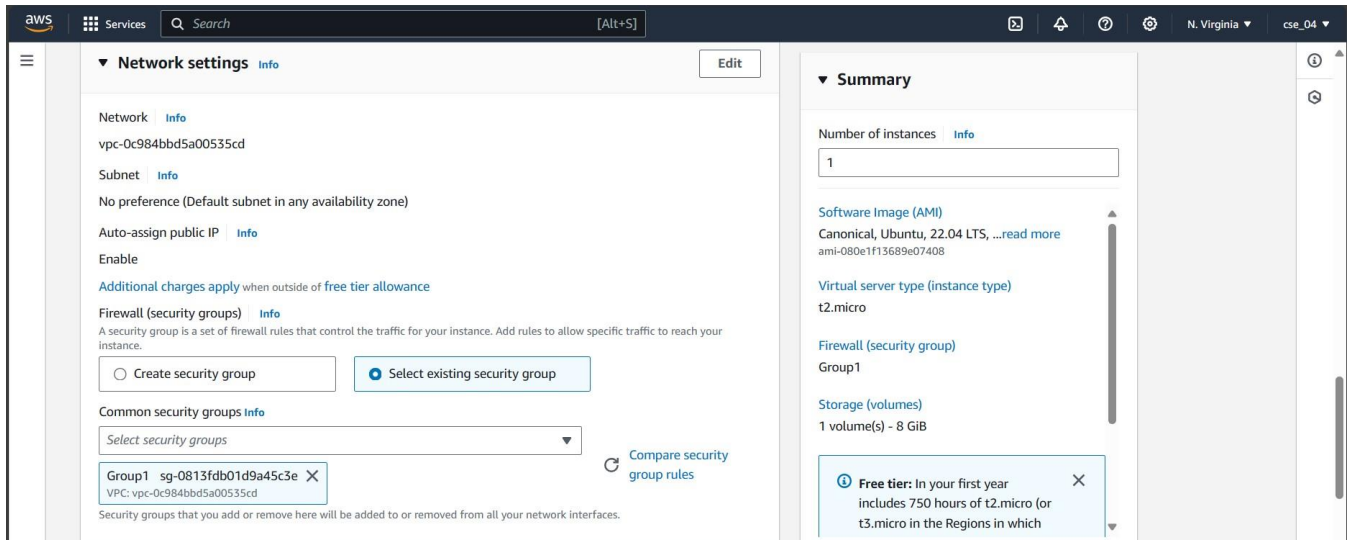
Key pair name - required  
keypair1323443 [Create new key pair](#)

▼ Summary

Number of instances Info  
1

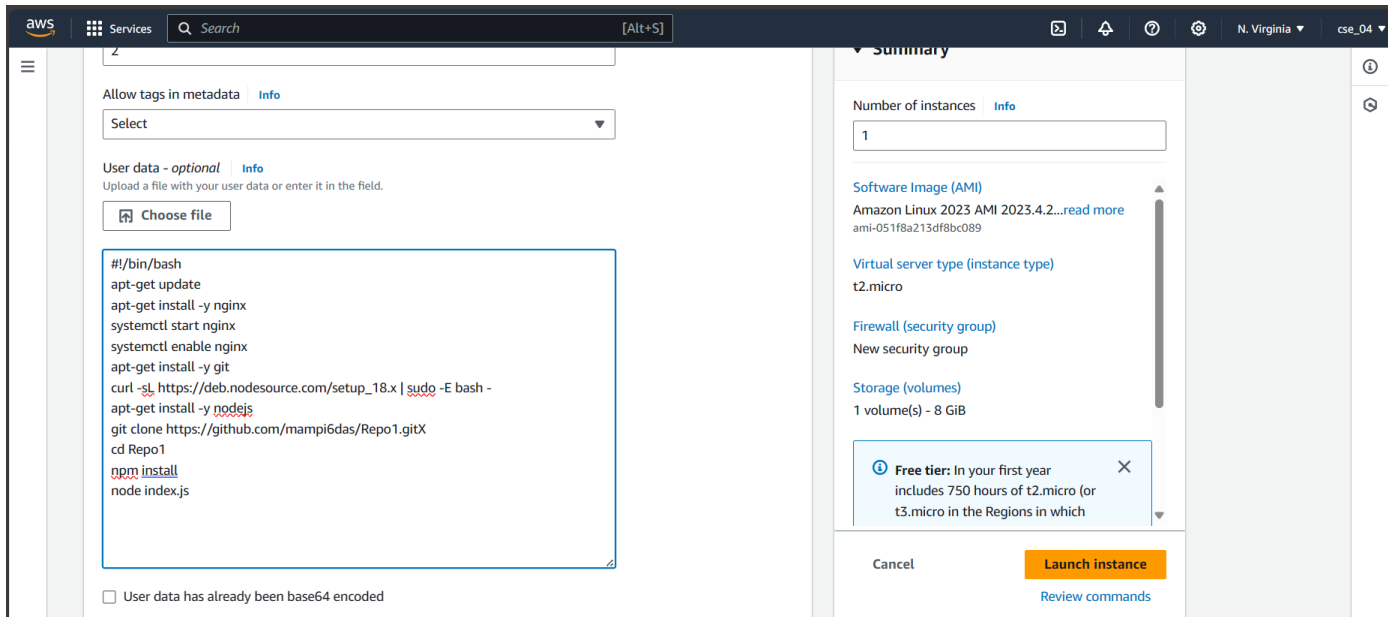
Software Image (AMI)  
Canonical, Ubuntu, 22.04 LTS, ...read more

11. Now, click on **select Existing security group** and select the newly created security group.

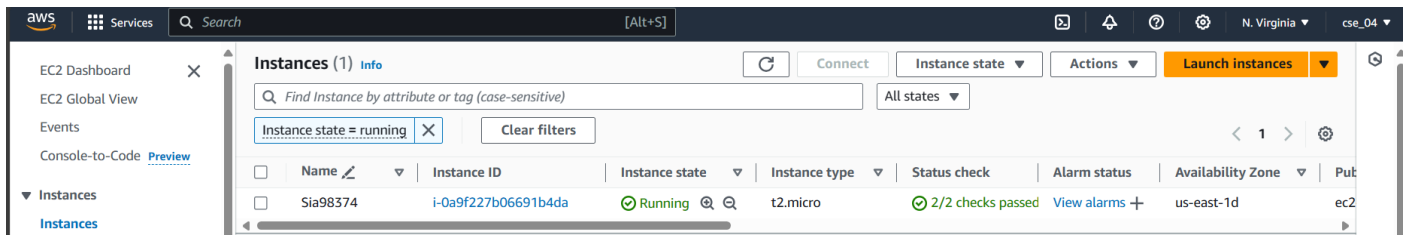


12. Expand the **Advanced details** section and Scroll down to the **User data** section and write the following script:

```
#!/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 <github repository cloning link>
cd Repo1
npm install
node index.js
```



13. Click on **Launch instance**. Now go to **Instances** and click on the **instance id** of the newly created instance.



14. Copy the **public IPv4 address**.



15. Open a new tab and paste the IPv4 address copied and add **“:4000”** to the end of it. This will display our intended website.

