

Assignment – 10

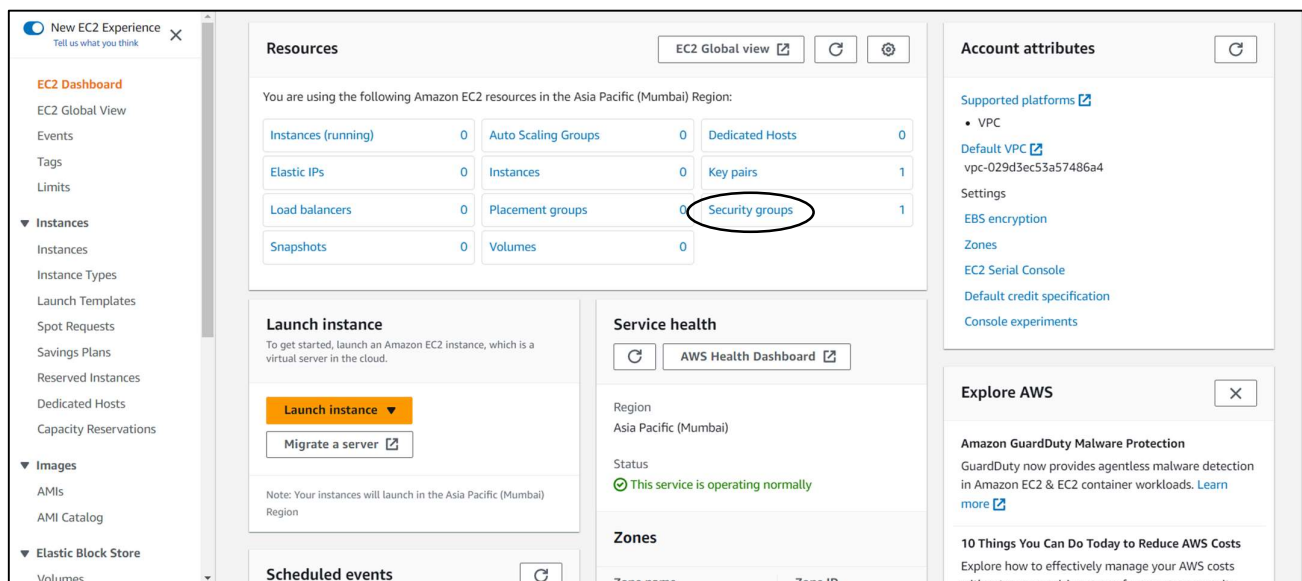
Problem Statement: -

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

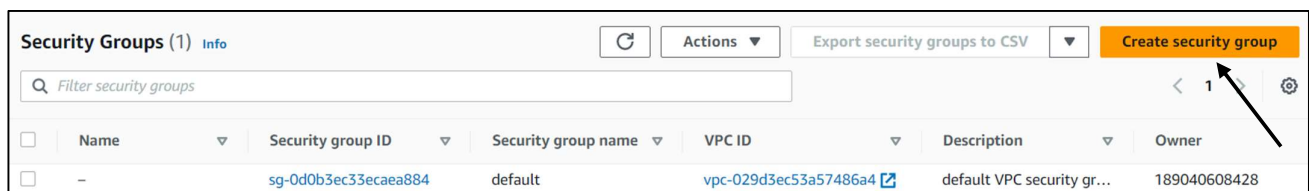
Steps for deploy a project from GitHub to EC2 by creating security new group & user data: -

1. Go to **EC2 dashboard**. Then go resources and enter into **Security groups**.
2. Click on **Create security group**.
3. Fill the Basic details (Security group name and Description must be same). Add Inbound rules such as **Custom TCP (4000), SSH (22), HTTP (80), HTTPS (443)**. All the **source 0.0.0.0/0** and click on create security group.
4. Now create EC2 instance. Select *newly created security group*.
5. Go **Advanced details** and add following commands in **User data** –
`#!/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/ABgithub-17/DemoProject2.git`
`cd DemoProject2`
`npm install`
`node index.js`
(GitHub repository must be public)
6. Copy Public IPv4 address and paste it in web browser with **:4000**. Now project deploy.

Some snapshots of above process: -



Go to Security groups



Click on Create security group

Inbound rules

Info

Type	Protocol	Port range	Source	Description - optional	Info
Custom TCP	TCP	4000	Anywh...		0.0.0.0/0 X
SSH	TCP	22	Anywh...		0.0.0.0/0 X
HTTP	TCP	80	Anywh...		0.0.0.0/0 X
HTTPS	TCP	443	Anywh...		0.0.0.0/0 X

Add rule

Add Inbound rules

EC2

>

Security Groups

>

sg-0ebc6263f75b7d222 - securityAB

sg-0ebc6263f75b7d222 - securityAB

Actions

Details

Security group name securityAB	Security group ID sg-0ebc6263f75b7d222	Description securityAB	VPC ID vpc-029d3ec53a57486a4
Owner 189040608428	Inbound rules count 4 Permission entries	Outbound rules count 1 Permission entry	

New security group created

▼ Network settings

Info

Edit

Network

Info

vpc-029d3ec53a57486a4

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Firewall (security groups)

Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group
 ☒ Select existing security group

Security groups

Info

Select security groups

☐ default
VPC: vpc-029d3ec53a57486a4
sg-0d0b3ec33ecaea884

☒ securityAB
VPC: vpc-029d3ec53a57486a4
sg-0ebc6263f75b7d222

Compare security group rules

▼ Configure storage

Info

Advanced

1x 8 GiB gp2 Root volume (Not encrypted)

▼ Summary

Number of instances

Info

1

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...read more

ami-02eb7a4783e7e9317

Virtual server type (instance type)

t2.micro

Firewall (security group)

securityAB

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 t2.micro is unavailable) instance usage on free tier

Cancel

Launch instance

Review commands

Select newly created security group

Select

▼

Metadata response hop limit [Info](#)

Select

Allow tags in metadata [Info](#)

Select

User data - optional [Info](#)

Enter user data in the field.

```
#!/bin/bash
apt-get update
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curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -
apt-get install -y nodejs
git clone https://github.com/ABgithub-17/DemoProject2.git
cd DemoProject2
npm install
node index.js
```

☐ User data has already been base64 encoded

▼ Summary

Number of instances [Info](#)

1

Virtual server type (instance type)

t2.micro

Firewall (security group)

securityAB

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 t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Launch instance

[Review commands](#)

Add User data

EC2 > Instances > i-0be396d93abe35211

Instance summary for i-0be396d93abe35211 (webserverAB) [Info](#)

Updated less than a minute ago

Public IPv4 address copied

13.232.79.66 | [open address](#)

Instance state

Pending

Private IP DNS name (IPv4 only)

ip-172-31-33-202.ap-south-1.compute.internal

Instance type

t2.micro

VPC ID

vpc-029d3ec53a57486a4

Subnet ID

subnet-0564cbff9731396bd

Private IPv4 addresses

172.31.33.202

Public IPv4 DNS

ec2-13-232-79-66.ap-south-1.compute.amazonaws.com | [open address](#)

Elastic IP addresses

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations. | [Learn more](#)

Auto Scaling Group name

-

Copy Public IPv4 address

GitHub

Instance details | EC2 Management Console

13.232.79.66:4000

Not secure | 13.232.79.66:4000

Hello ANIKET

Deploy project