

## Assignment – 9

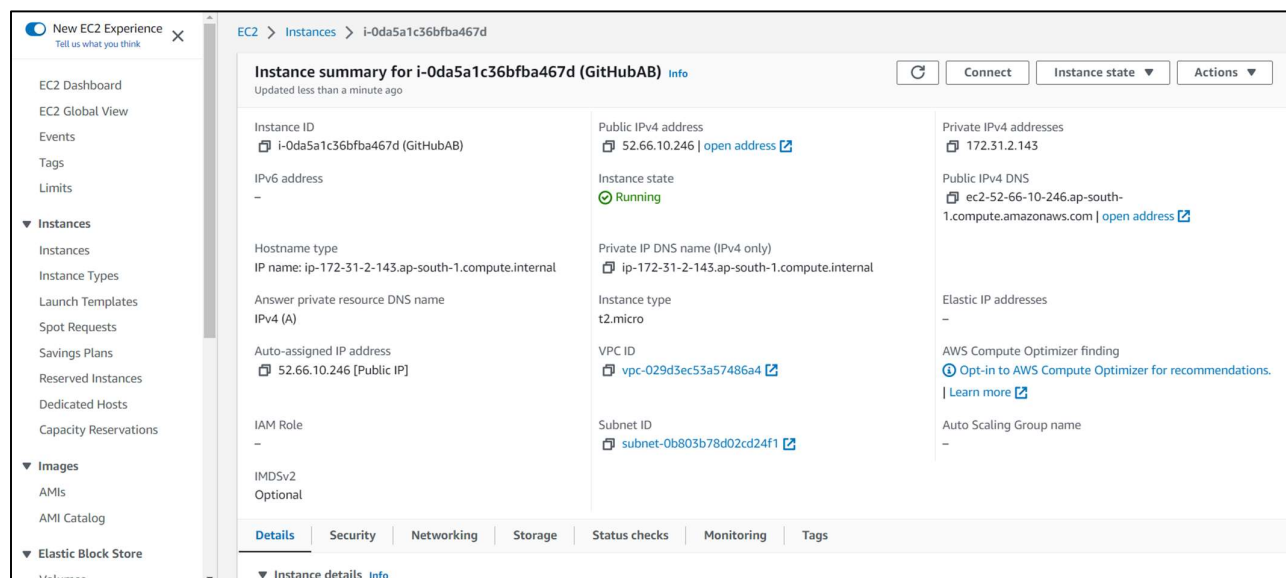
### Problem Statement: -

Deploy a project from GitHub to EC2.

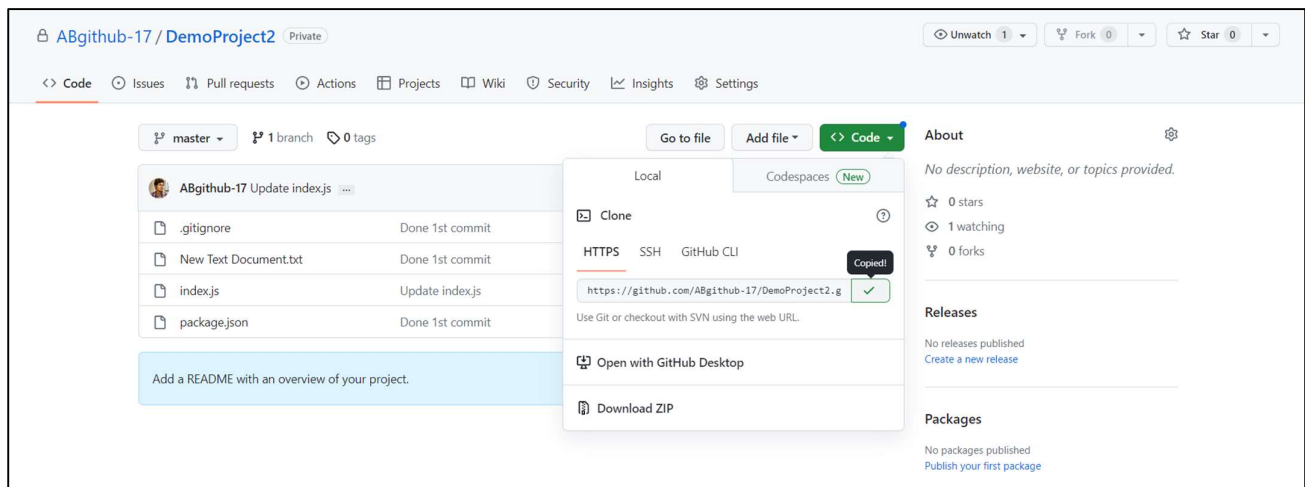
### Steps for deploy a project from GitHub to EC2: -

1. Create **EC2 instance** in AWS and copy public IP address.
2. Configure **Bitwise SSH Client** with public IP and publickey and Log In.
3. Go ubuntu terminal and run bellow commands:
  - a) `pwd` *#check present working directory*
  - b) `sudo apt-get update && sudo apt-get upgrade`
  - c) `sudo apt-get install nginx`
  - d) `nginx -v` *#check nginx version*
  - e) `curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -`
  - f) `sudo apt install nodejs`
  - g) `node -v` *#check node version*
4. Go to your GitHub project repository and copy URL.
5. Then go to ubuntu terminal and run bellow commands:
  - a) `git clone https://github.com/ABgithub-17/DemoProject2.git`  
(After run this command you need to enter GitHub name as username and GitHub token as password)
  - b) `pwd` *#check present working directory*
  - c) `dir` *#check directory content*
  - d) `cd <Project_Directory>` *#change directory*
  - e) `dir` *#check directory content*
  - f) `npm install`
  - g) `node index.js` *#start server*
6. Now paste copied public IP address in web browser. Start nginx web server.
7. Go to GitHub project repository, then go **index.js** file and check **port number** and copy that and paste it with public IP address (*like as 52.66.10.246:4000*). **You web page is not working.**
8. Go to **AWS EC2 instance Security option**; you can see port number is not present there. Now go to **Security groups, Edit inbound rules** with that port number and save rules. **Now go to web page you can see page is working.**
9. If you want to modify, your web page then go to GitHub project repository and make the changes and commit changes.
10. Go to ubuntu terminal run the command **git pull** and **node index.js** in project directory (*after run this command you need to enter GitHub name as username and GitHub token as password*).
11. Now refresh your web page you can see the modification.

### Some snapshots of above process: -



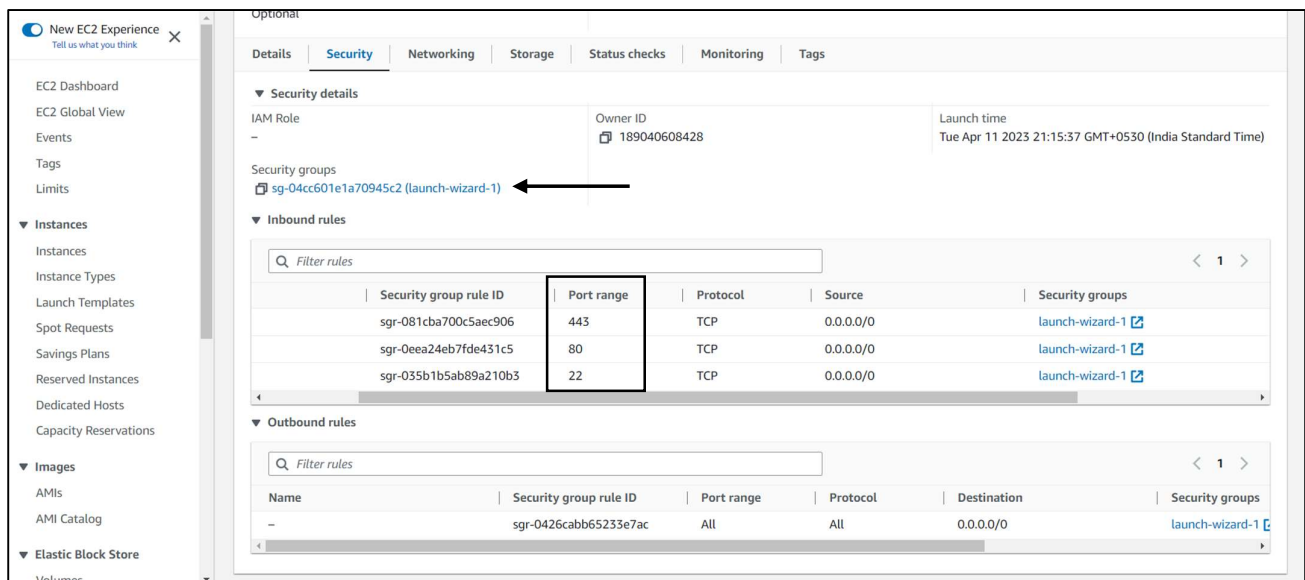
Create EC2 instance & copy public IP address



Copy URL

```
ubuntu@ip-172-31-2-143:~$ git clone https://github.com/ABgithub-17/DemoProject2.git
Cloning into 'DemoProject2'...
Username for 'https://github.com': ABgithub-17
Password for 'https://ABgithub-17@github.com':
remote: Enumerating objects: 11, done.
remote: Counting objects: 100% (11/11), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 11 (delta 3), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (11/11), done.
Resolving deltas: 100% (3/3), done.
ubuntu@ip-172-31-2-143:~$
```

After clone repository



Go to Security option

New EC2 Experience  
Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

sg-04cc601e1a70945c2 - launch-wizard-1

Actions

Details

Security group name  
launch-wizard-1

Security group ID  
sg-04cc601e1a70945c2

Description  
launch-wizard-1 created 2023-04-11T15:45:15.261Z

VPC ID  
vpc-029d3ec53a57486a4

Owner  
189040608428

Inbound rules count  
3 Permission entries

Outbound rules count  
1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules (3)

Manage tags

Edit inbound rules

Filter security group rules

Security group rule...	IP version	Type	Protocol	Port range	Source
sgr-081cba700c5aec906	IPv4	HTTPS	TCP	443	0.0.0.0/0
sgr-0eea24eb7fde431c5	IPv4	HTTP	TCP	80	0.0.0.0/0
sgr-035b1b5ab89a21...	IPv4	SSH	TCP	22	0.0.0.0/0

Edit inbound rules

Edit inbound rules

Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules

Info

Security group rule ID	Type	Info	Protocol	Info	Port range	Source	Info	Description - optional	Info
sgr-081cba700c5aec906	HTTPS		TCP		443	Custom	0.0.0.0/0		Delete
sgr-0eea24eb7fde431c5	HTTP		TCP		80	Custom	0.0.0.0/0		Delete
sgr-035b1b5ab89a210b3	SSH		TCP		22	Custom	0.0.0.0/0		Delete
-	Custom TCP		TCP		4000	Anywh...	0.0.0.0/0		Delete

Add rule

Cancel

Preview changes

Save rules

Add rule

52.66.10.246:4000

Not secure | 52.66.10.246:4000

Hello JARVIS

Initially web page

```
ubuntu@ip-172-31-2-143:~/DemoProject2$ git pull
Username for 'https://github.com': ABgithub-17
Password for 'https://ABgithub-17@github.com':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 668 bytes | 668.00 KiB/s, done.
From https://github.com/ABgithub-17/DemoProject2
   6a7e085..2bbb33d  master    -> origin/master
Updating 6a7e085..2bbb33d
Fast-forward
 index.js | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
ubuntu@ip-172-31-2-143:~/DemoProject2$
```

After changes run git pull command



After modification web page