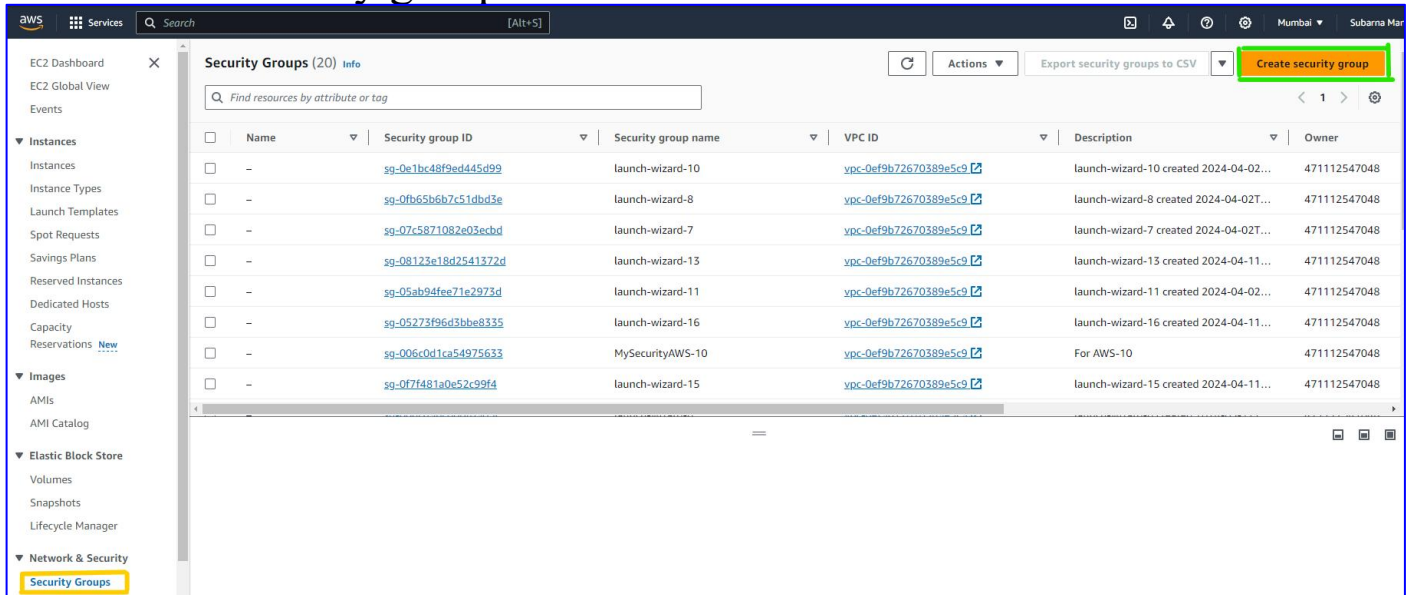


Assignment No :- 12

Problem Statement : Deploy and run project in AWS without using port.

Step - 1 : Login to AWS , search for EC2 then click security groups to create new security group.



Step - 2 : Now provide security group name , Inbound rules SSH, HTTP, HTTPS and Custom TCP with port range 4000. Then create group.

Create security group

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name: AWS-12
Description: AWS-12
VPC: vpc-0ef9b72670389e5c9

Inbound rules

Type	Protocol	Port range	Source	Description - optional
SSH	TCP	22	Anywhere...	
HTTP	TCP	80	Anywhere...	
HTTPS	TCP	443	Anywhere...	
Custom TCP	TCP	4000	Anywhere...	

Outbound rules

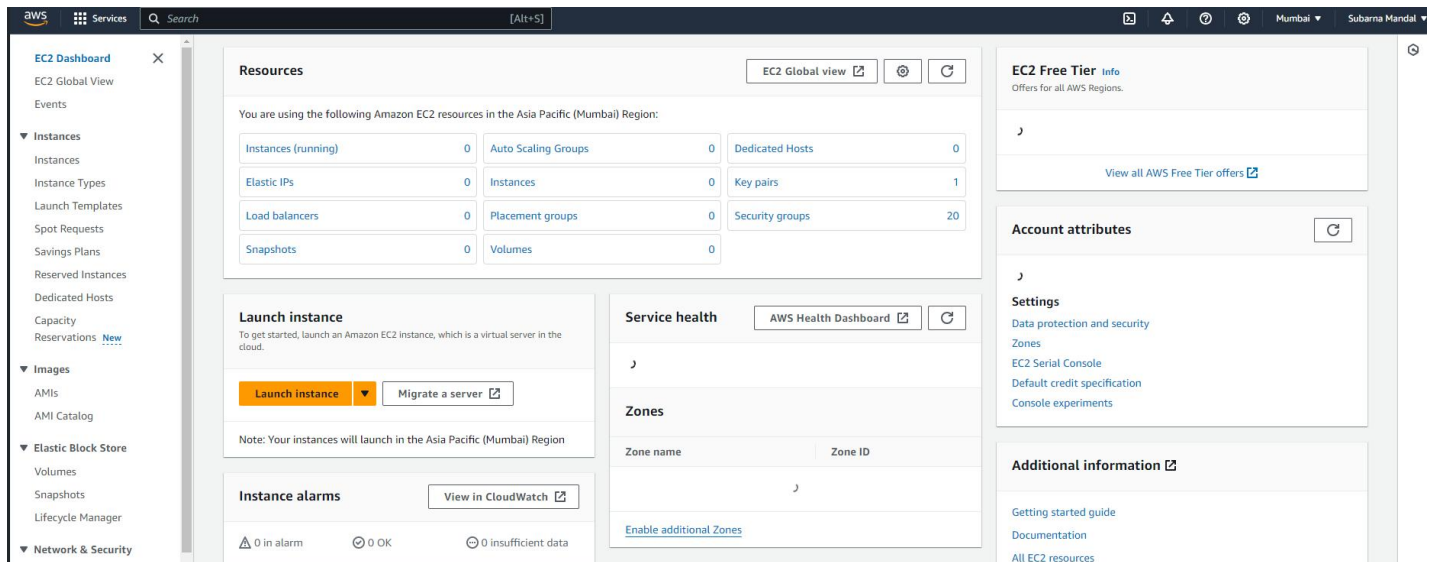
Type	Protocol	Port range	Destination	Description - optional
All traffic	All	All	Custom	

Tags - optional

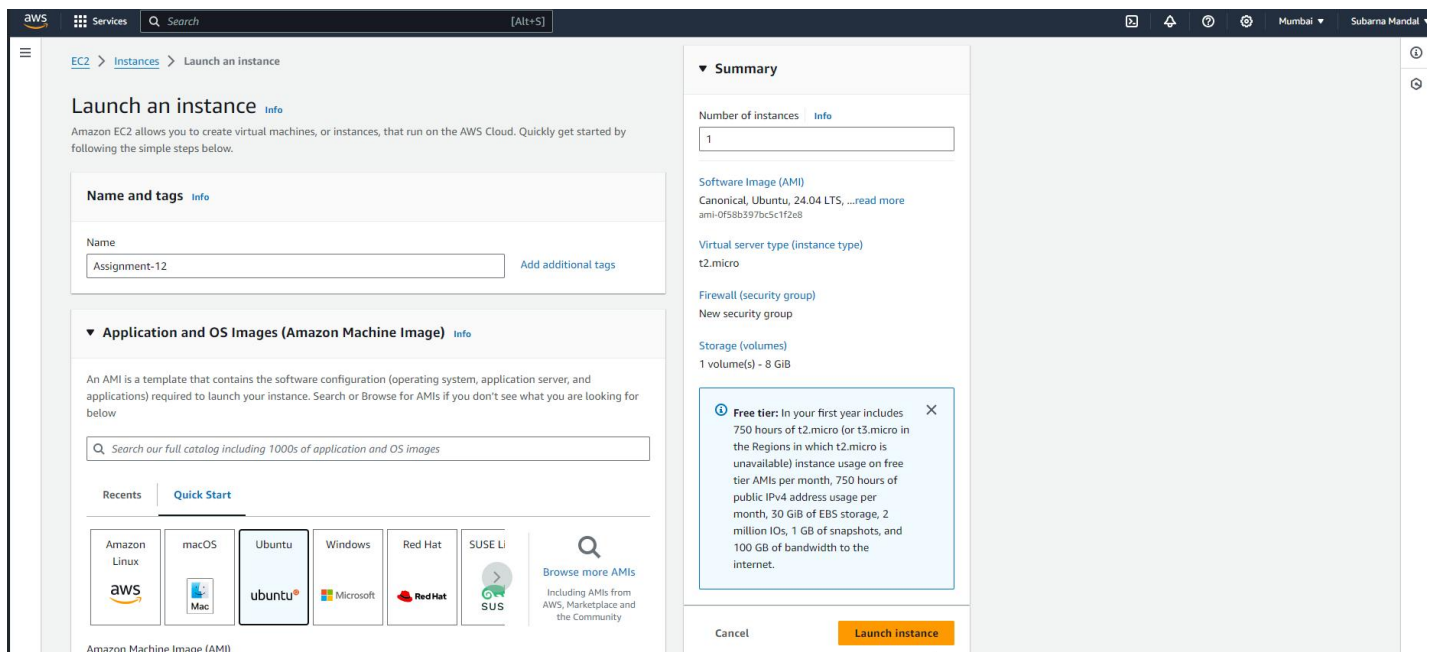
No tags associated with the resource.

Cancel Create security group

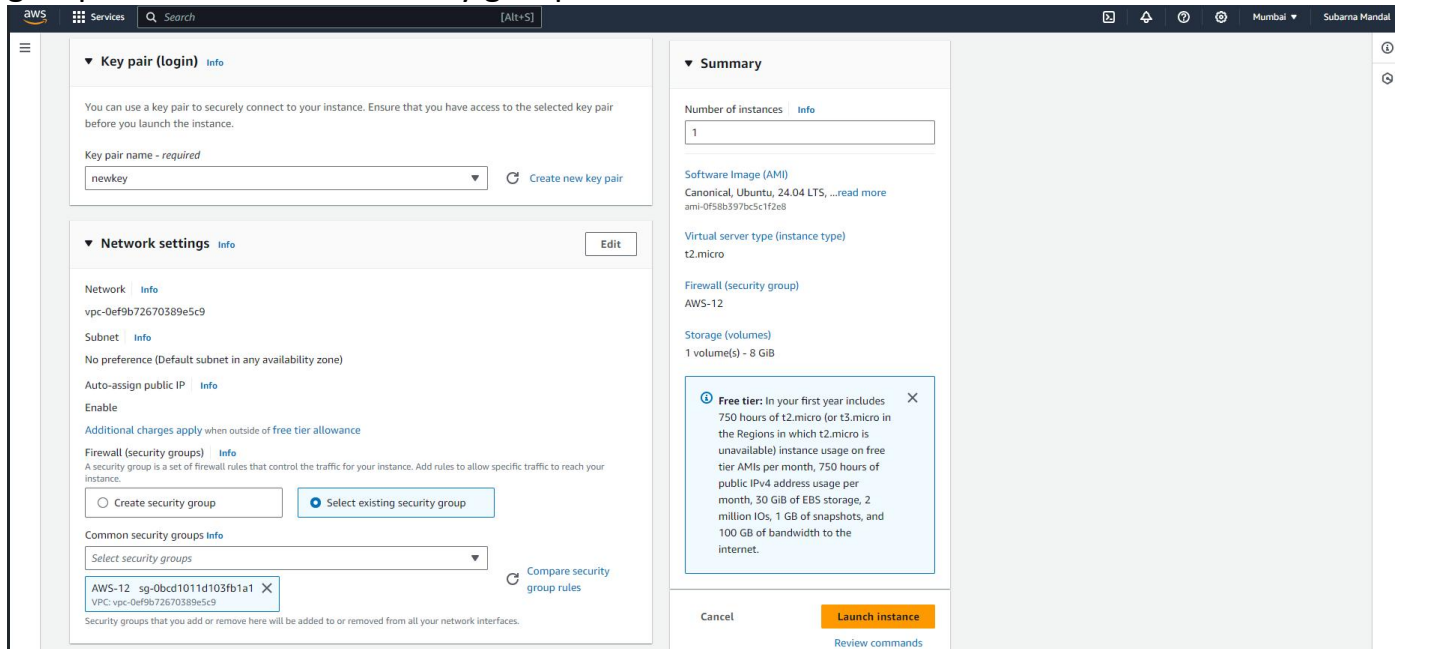
Step - 3 : Go to EC2 dashboard and click on Launch Instance.



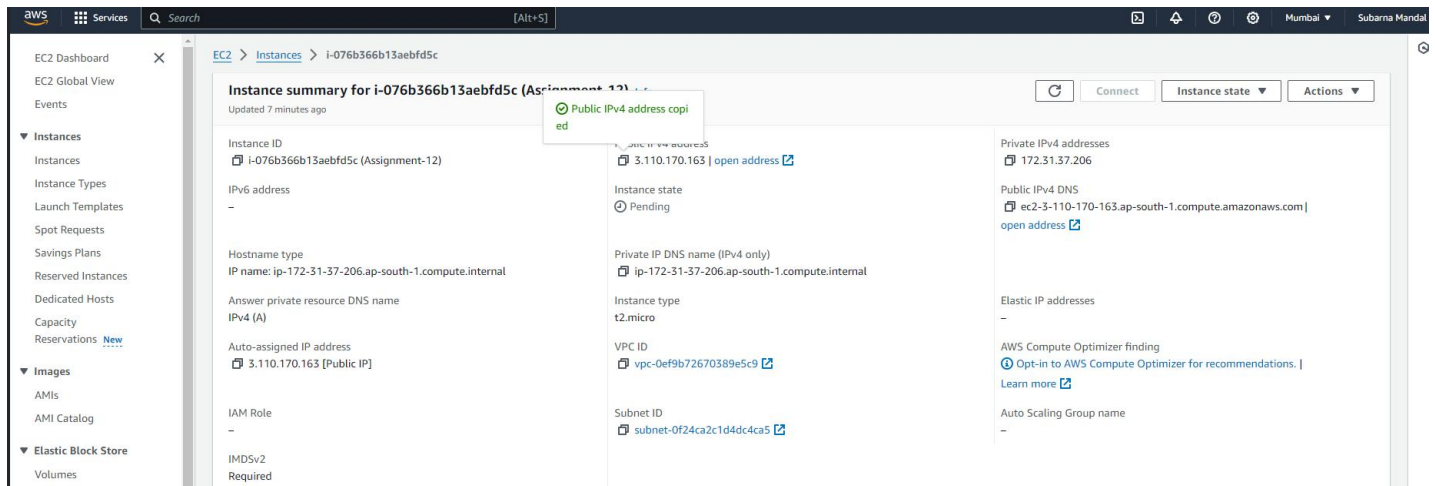
Step - 4 : After it give a unique name and then click on Ubuntu.



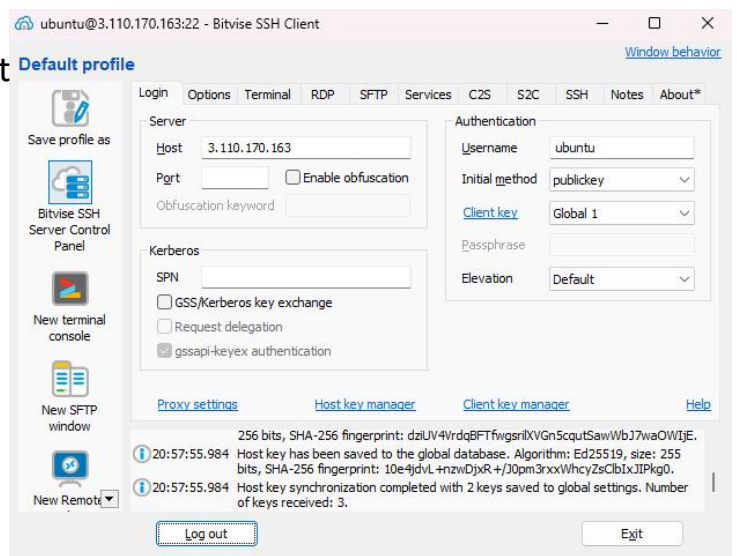
Step - 5 : Now select key pair and in network settings also click on “Select existing security group” then select the security group which was created and click on Launch Instance.



Step - 6 : Click on instance and copy public IPv4 address.



Step - 7 : Paste the IPv4 address in host of BitVise SSH client and import key pair in Client key pair manager. After that click on Log In.



Step - 8 : Now open terminal in BitVise SSH and then write all commands :

- Pwd
- sudo apt-get update
- sudo apt-get upgrade
- sudo apt-get install nginx
- curl -SL https://deb.nodesource.com/setup_16.x|sudo -E bash -

```
ubuntu@ip-172-31-37-206:~$ pwd
/home/ubuntu
```

- Sudo apt install nodejs
- git clone https://github.com/SUBARNA-MANDAL/aws10.git
- cd repo2
- npm install
- node index.js

```
ubuntu@ip-172-31-37-206:~$ curl -SL https://deb.nodesource.com/setup_16.x|sudo -E bash -
% Total % Received % Xferd Average Speed Time Time Time Current
 100    5617 100    5617    0     0 16794    0 --:--:-- --:--:-- --:--:-- 16817

DEPRECATION WARNING
Node.js 16.x is no longer actively supported!

You will not receive security or critical stability updates for this version.

You should migrate to a supported version of Node.js as soon as possible.
Use the installation script that corresponds to the version of Node.js you
wish to install. e.g.

* https://deb.nodesource.com/setup_16.x - Node.js 16 "Bullseye" (deprecated)
* https://deb.nodesource.com/setup_18.x - Node.js 18 "Hydrogen" (current)
* https://deb.nodesource.com/setup_20.x - Node.js 20 "Iron" (recommended)
* https://deb.nodesource.com/setup_21.x - Node.js 21 "Iron" (current)

Please see https://github.com/nodejs/Release for details about which
version may be appropriate for you.

The NodeSource Node.js distributions repository contains
information both about supported versions of Node.js and supported Linux
distributions. To learn more about usage, see the repository:
https://github.com/nodesource/distributions

Continuing in 10 seconds ...

2024-05-22 15:44:36 - Installing pre-requisites
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
```

```
ubuntu@ip-172-31-37-206:~$ git clone https://github.com/SUBARNA-MANDAL/aws10.git
Cloning into 'aws10'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 9 (delta 1), reused 9 (delta 1), pack-reused 0
Receiving objects: 100% (9/9), 48.26 KiB | 6.89 MiB/s, done.
Resolving deltas: 100% (1/1), done.
ubuntu@ip-172-31-37-206:~$ cd aws10
ubuntu@ip-172-31-37-206:~/aws10$ npm install
npm WARN deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math
details.

added 250 packages, and audited 251 packages in 13s

24 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice
npm notice New Major version of npm available! 8.19.4 -> 10.8.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.8.0
npm notice Run npm install -g npm@10.8.0 to update!
npm notice
ubuntu@ip-172-31-37-206:~/aws10$ node index.js
Started server
```

Step - 9 : Now server has started. If we paste it with port 4000 in url section then we can see nginx has started. To stop server click (ctrl+c).



Step - 10 : Now write these all commands:

- cd /
- pwd
- cd etc/nginx/sites-available/
- sudo nano default

```
ubuntu@3.110.170.163:22 - Bitvise xterm - ubuntu@ip-172-31-37-206: /etc/nginx/sites-available
Last login: Wed May 22 15:35:04 2024 from 49.37.9.83
ubuntu@ip-172-31-37-206:~$ cd /
ubuntu@ip-172-31-37-206:/$ pwd
/
ubuntu@ip-172-31-37-206:/$ cd etc/nginx/sites-available/
```

Step - 11 :

A new window will be opened. There at first go to location area and comment all codes and the write:

- location/{
proxy_pass <http://localhost:4000>;
proxy_http_version 1.1;
proxy_set_header Upgrade \$http_upgrade;
proxy_set_header Connection 'upgrade';
proxy_set_header Host \$host;
proxy_cache_bypass \$http_upgrade;
}

->After it click ctrl+x, then y then click enter

A screenshot of the nano text editor showing the default configuration file for nginx. The file is located at /etc/nginx/sites-available/default. The content includes a location block for http://localhost:4000, which is highlighted in blue. The editor shows the file name 'default' and the path '/etc/nginx/sites-available'. The bottom status bar shows various keyboard shortcuts like ^G Help, ^O Write Out, etc.

Step - 12 : Now open new server terminal and write the commands

- cd repo2
- sudo systemctl restart nginx.

Step - 13 :

Now copy that public IPv4 address again and paste it in url and there we can see that without giving port **4000** with url we have hosted the website.

