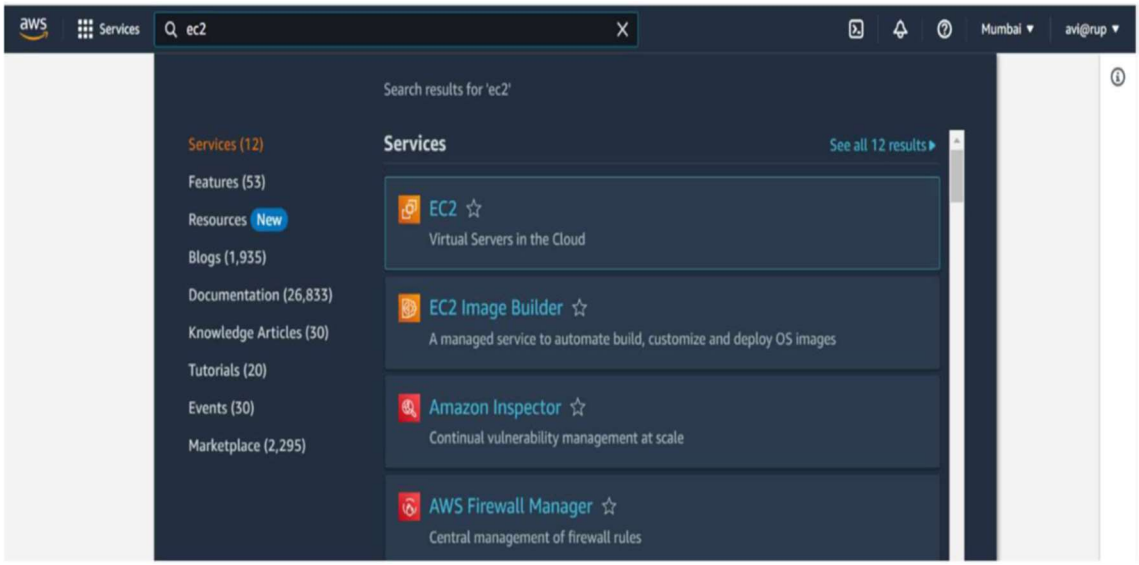
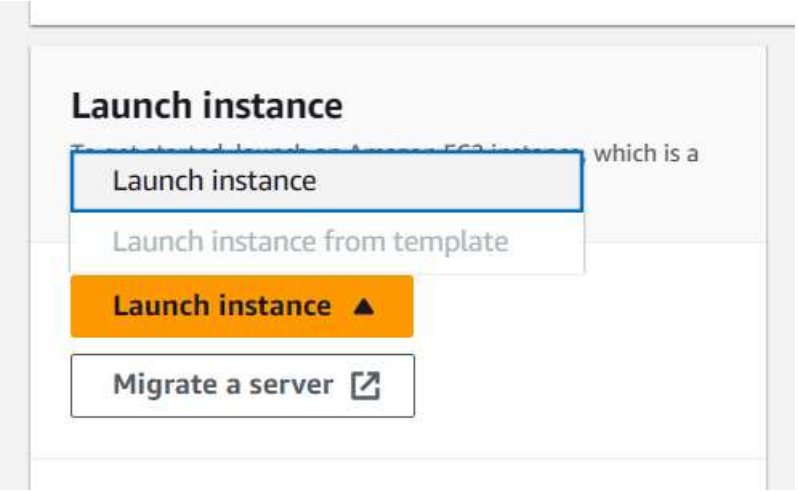
ASSIGNMENT 12

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

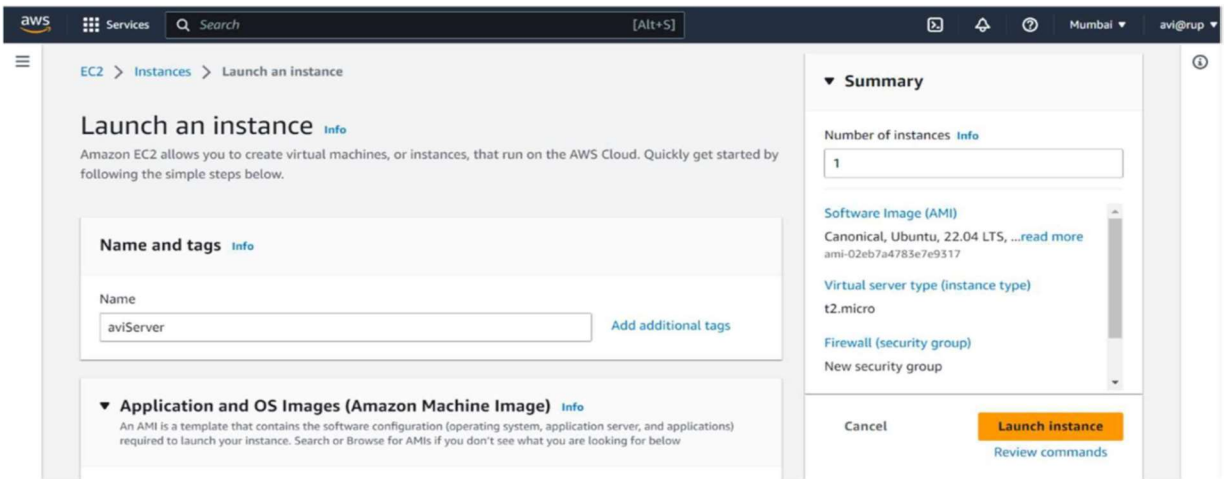
1. Sign in to your AWS account.



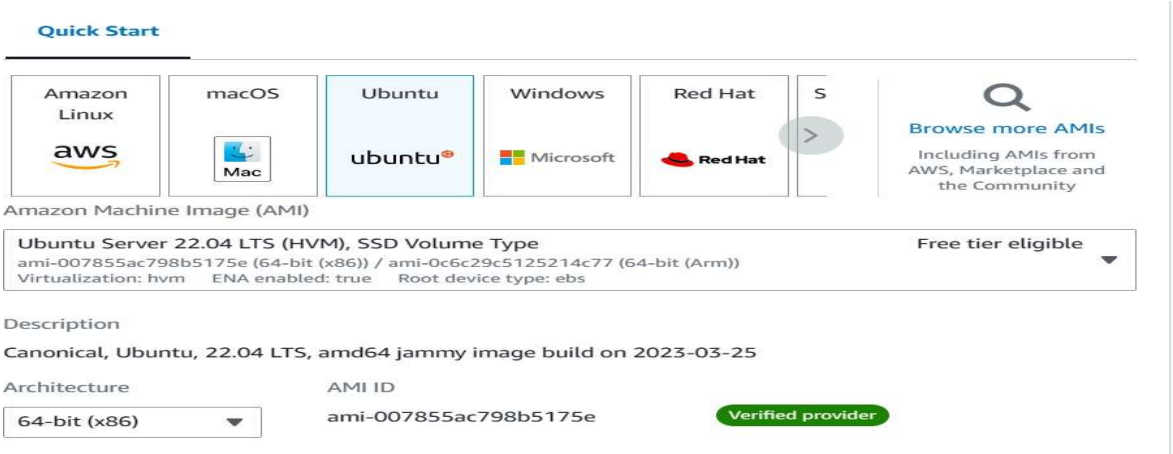
2. Go to EC2 and Click on Launch instance.



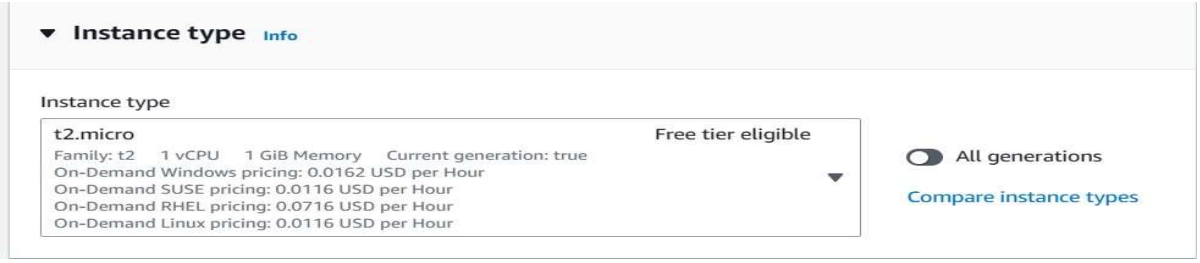
a) Enter a name for the instance.



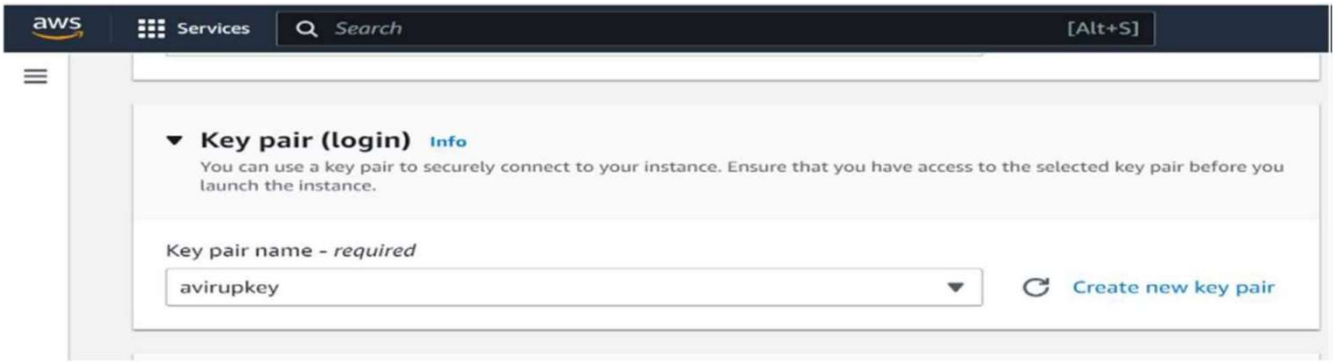
b) Select an OS for your server. [Here we have selected Ubuntu]



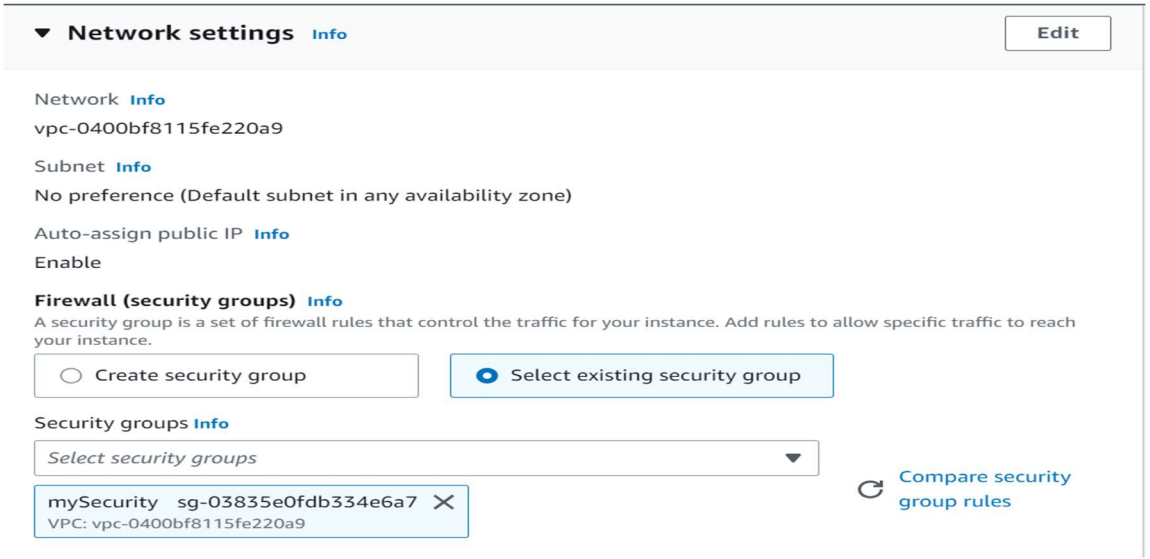
c) Select the instance type as t2.micro



d) Select a key pair if you already have created one otherwise create a new key pair.



e) In the Network settings, select the existing security group.



f) In Advanced Details, Enter the following commands in *User data* section-

```
#!/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 Repo link
cd Repo name
npm install
node index.js
```

User data - *optional* Info

Enter 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 Repo https://github.com/sohail3080/Awsproject2.git
cd Awsproject2
npm install
node index.js
```

g) Now Click on Launch instance

Cancel | Launch instance | Review commands

h) As we can see, we have started nginx server and deployed the project successfully.

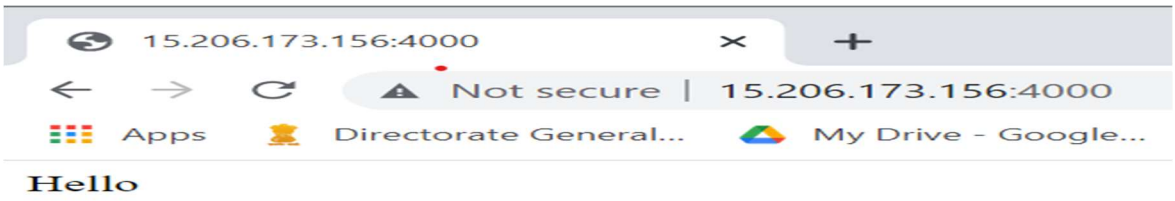
Not secure | 3.83.97.74

Welcome to nginx!

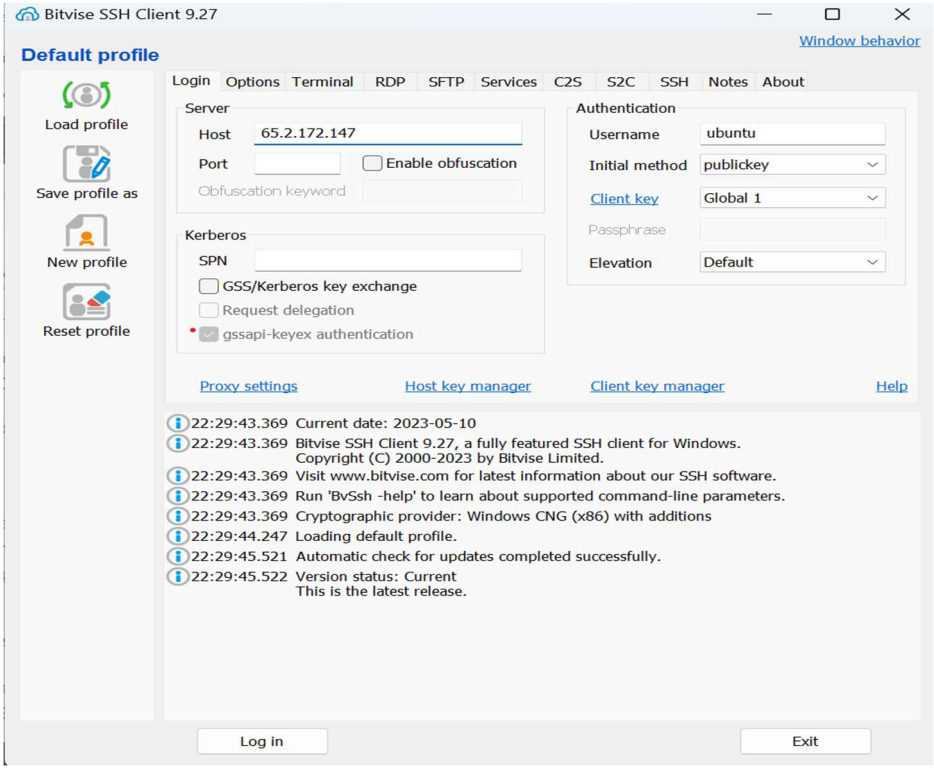
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

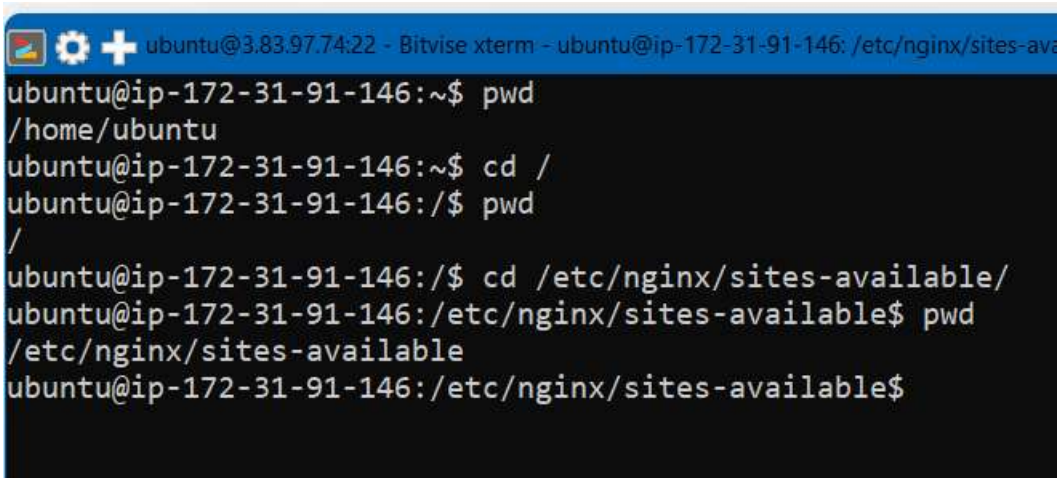


3. Now, Connect the instance using Bitvise SSH Client.



4. In New terminal console,
   a) Enter the following commands-

- pwd [*to check the present working directory]*
- cd / *[to go to the root directory]*
- cd /etc/nginx/sites-available/



- sudo nano default

b) Now a PHP default code will open.

```
ubuntu@3.83.97.74:22 - Bitvise xterm - ubuntu@ip-172-31-91-146: /etc/nginx/sites-available
  GNU nano 6.2                                  default
##
# You should look at the following URL's in order to grasp a solid understanding
# of Nginx configuration files in order to fully unleash the power of Nginx.
# https://www.nginx.com/resources/wiki/start/
# https://www.nginx.com/resources/wiki/start/topics/tutorials/config_pitfalls/
# https://wiki.debian.org/Nginx/DirectoryStructure
#
# In most cases, administrators will remove this file from sites-enabled/ and
# leave it as reference inside of sites-available where it will continue to be
# updated by the nginx packaging team.
#
# This file will automatically load configuration files provided by other
# applications, such as Drupal or Wordpress. These applications will be made
# available underneath a path with that package name, such as /drupal8.
#
# Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.
##

# Default server configuration
#
server {
        listen 80 default_server;
        listen [::]:80 default_server;

        # SSL configuration
        #
        # listen 443 ssl default_server;
        # listen [::]:443 ssl default_server;
        #
        # Note: You should disable gzip for SSL traffic.
        # See: https://bugs.debian.org/773332
                                        [ Read 91 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut       ^T Execute    ^C Location   M-U Undo
^X Exit      ^R Read File  ^\ Replace    ^U Paste     ^J Justify    ^/ Go To Line M-E Redo
```

c) Go down until you see the “location” part of the code. Comment the three lines of that as shown in the image below.

```
#       location / {
                # First attempt to serve request as file, then
                # as directory, then fall back to displaying a 404.
#               try_files $uri $uri/ =404;
#       }
```

d) Then paste the location code (given below) under the hashed location part.

```
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;
 }
```

```
#       location / {
                # First attempt to serve request as file, then
                # as directory, then fall back to displaying a 404.
#               try_files $uri $uri/ =404;
#       }
        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;
        }

        # pass PHP scripts to FastCGI server
```

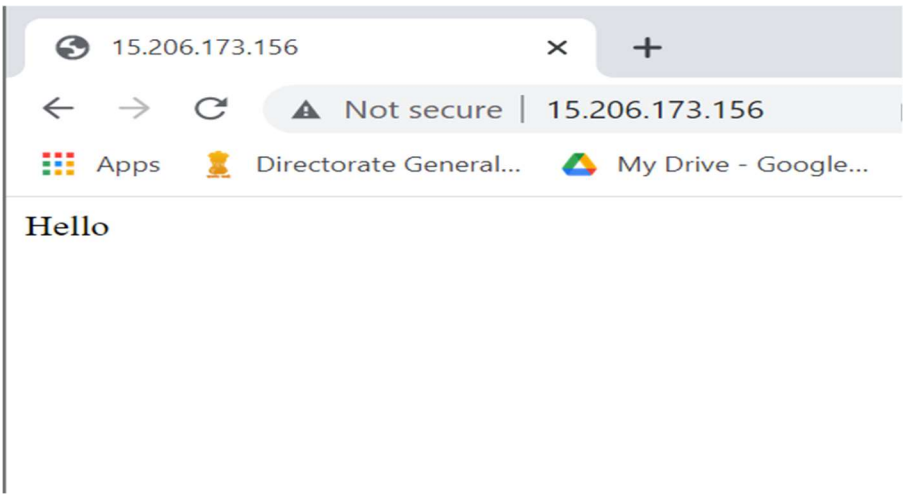
e) Next, Press "***Ctrl+X*** ➔ ***Y*** ➔ ***Enter***" respectively to exit and save your changes.

```
ubuntu@3.83.97.74:22 - Bitvise xterm - ubuntu@ip-172-31-91-146: /etc/nginx/sites-available
ubuntu@ip-172-31-91-146:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-91-146:~$ cd /
ubuntu@ip-172-31-91-146:/$ pwd
/
ubuntu@ip-172-31-91-146:/$ cd /etc/nginx/sites-available/
ubuntu@ip-172-31-91-146:/etc/nginx/sites-available$ pwd
/etc/nginx/sites-available
ubuntu@ip-172-31-91-146:/etc/nginx/sites-available$ sudo nano default
ubuntu@ip-172-31-91-146:/etc/nginx/sites-available$
```

f) Next, Enter the following command:
sudo systemctl restart nginx

```
ubuntu@ip-172-31-91-146:/etc/nginx/sites-available$ sudo systemctl restart nginx
ubuntu@ip-172-31-91-146:/etc/nginx/sites-available$
```

5. Now run the Public IPv4 Address in a web browser without using the port number.



Hence, we have successfully deployed the project without using Port number.