



# Hosting a website on AWS EC2 instance using the nginx web server



**Step 1:** launch an instance.

The screenshot displays the AWS Management Console interface for EC2 instances. The left sidebar shows navigation options like EC2 Dashboard, EC2 Global View, Events, Console-to-Code, and a list of services including Instances, Images, and Elastic Block Store. The main content area shows a list of instances with one instance, 'inst1', selected. Below the list, the details for instance 'i-0017659e4bf4be969' are shown, including its state (Running), type (t2.micro), and various IP addresses.

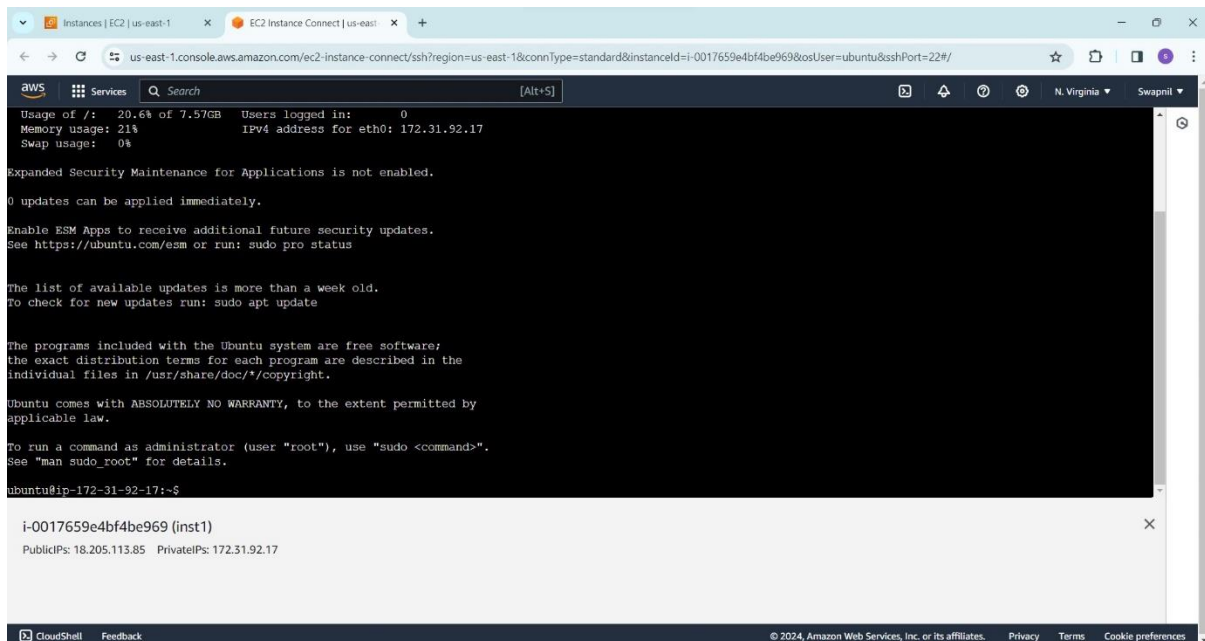
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 address
inst1	i-0017659e4bf4be969	Running	t2.micro	Initializing	View alarms	us-east-1c	ec2-18-205-113-85.compute-1.amazonaws.com

**Instance: i-0017659e4bf4be969 (inst1)**

**Instance summary**

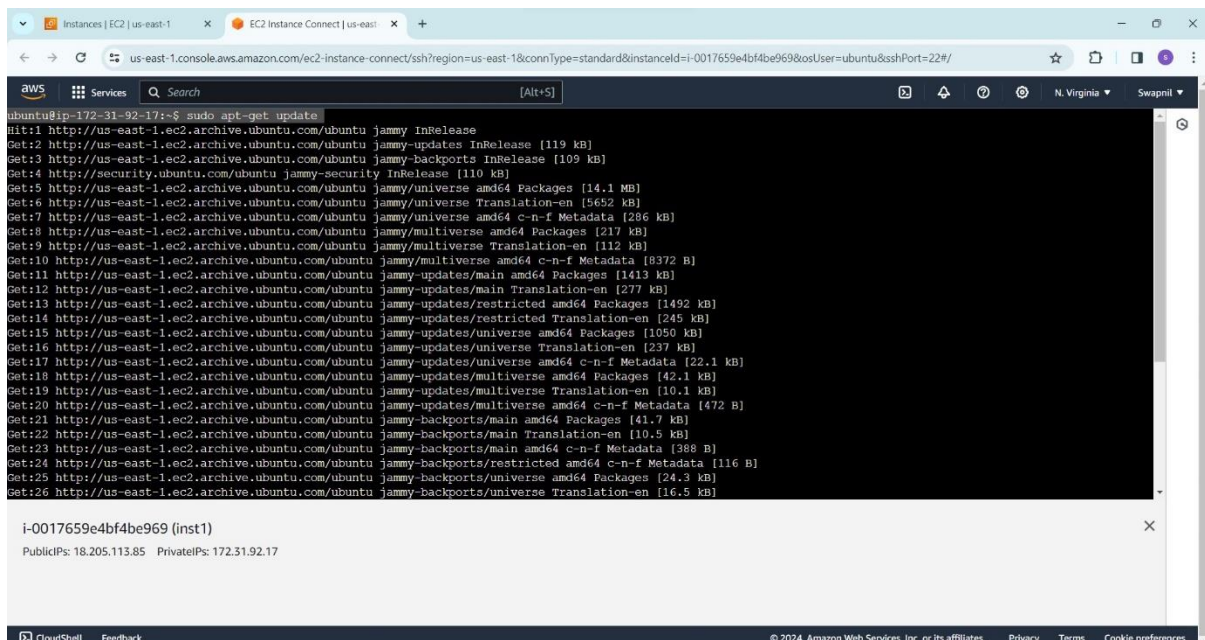
- Instance ID: i-0017659e4bf4be969 (inst1)
- Public IPv4 address: 18.205.113.85
- Private IPv4 addresses: 172.31.92.17
- Instance state: Running
- Public IPv4 DNS: ec2-18-205-113-85.compute-1.amazonaws.com
- Private IP DNS name (IPv4 only):

## Step 2: connect to instance.



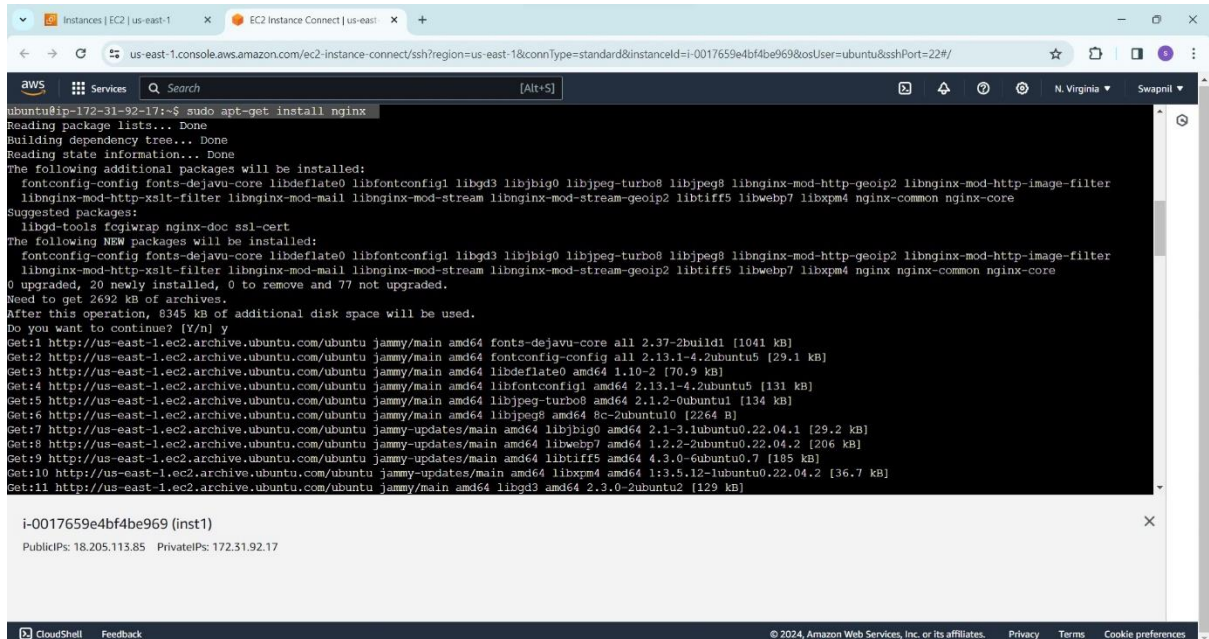
## Step 3: update the system.

### ➤ Sudo apt-get update



## Step 4: install nginx web server.

### ➤ Sudo apt-get install nginx

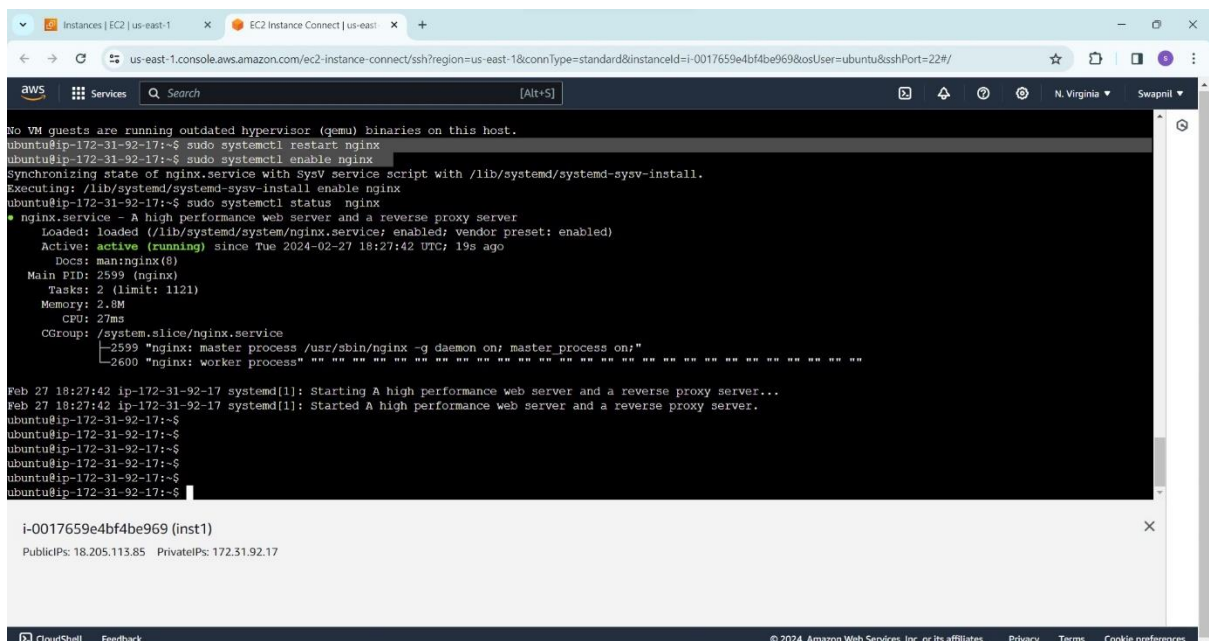


```
ubuntu@ip-172-31-92-171:~$ sudo apt-get install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core libdeflate0 libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libnginx-mod-http-geoip2 libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream libnginx-mod-stream-geoip2 libtiff5 libwebp7 libxpm4 nginx-common nginx-core
Suggested packages:
  libgd-tools fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libdeflate0 libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libnginx-mod-http-geoip2 libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream libnginx-mod-stream-geoip2 libtiff5 libwebp7 libxpm4 nginx nginx-common nginx-core
0 upgraded, 20 newly installed, 0 to remove and 77 not upgraded.
Need to get 2692 kB of archives.
After this operation, 8345 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fonts-dejavu-core all 2.37-2build1 [1041 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fontconfig-config all 2.13.1-4.2ubuntu5 [29.1 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libdeflate0 amd64 1.10-2 [70.9 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libfontconfig1 amd64 2.13.1-4.2ubuntu5 [131 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg-turbo8 amd64 2.1.2-0ubuntu1 [134 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg8 amd64 8c-2ubuntu10 [2264 B]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libjpeg8 amd64 2.1-3.1ubuntu0.22.04.1 [29.2 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libwebp7 amd64 1.2.2-2ubuntu0.22.04.2 [206 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libtiff5 amd64 4.3.0-6ubuntu0.7 [185 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libxpm4 amd64 1:3.5.12-1ubuntu0.22.04.2 [36.7 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libgd3 amd64 2.3.0-2ubuntu2 [129 kB]
i-0017659e4bf4be969 (inst1)
PublicIPs: 18.205.113.85 PrivateIPs: 172.31.92.17
```

## Step 5: restart and enable the nginx

### ➤ Sudo systemctl restart nginx

### ➤ Sudo systemctl enable nginx

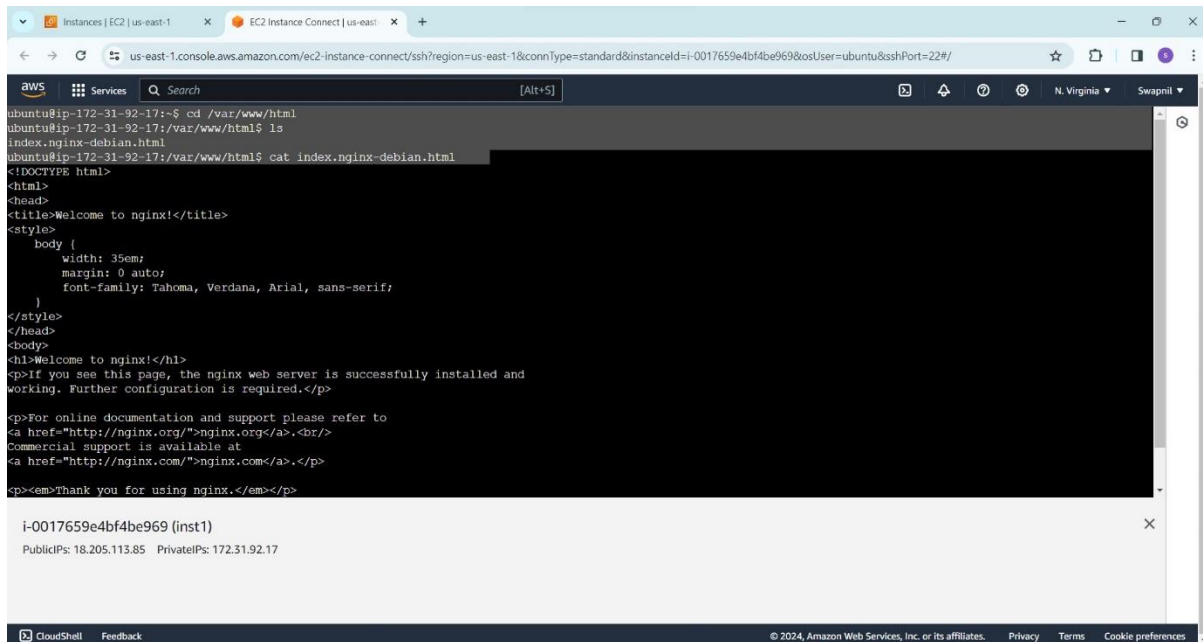


```
ubuntu@ip-172-31-92-171:~$ sudo systemctl restart nginx
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-92-171:~$ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
ubuntu@ip-172-31-92-171:~$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2024-02-27 18:27:42 UTC; 19s ago
     Docs: man:nginx(8)
    Main PID: 2599 (nginx)
      Tasks: 2 (limit: 1121)
     Memory: 2.8M
        CPU: 27ms
    CGroup: /system.slice/nginx.service
            └─2599 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
              └─2600 "nginx: worker process"

Feb 27 18:27:42 ip-172-31-92-171 systemd[1]: Starting A high performance web server and a reverse proxy server...
Feb 27 18:27:42 ip-172-31-92-171 systemd[1]: Started A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-92-171:~$
ubuntu@ip-172-31-92-171:~$
ubuntu@ip-172-31-92-171:~$
ubuntu@ip-172-31-92-171:~$
ubuntu@ip-172-31-92-171:~$
i-0017659e4bf4be969 (inst1)
PublicIPs: 18.205.113.85 PrivateIPs: 172.31.92.17
```

## Step 6: upload application code file.

- Change application code in `/var/www/html/index.nginx-debian.html` file



```
ubuntu@ip-172-31-92-17:~$ cd /var/www/html
ubuntu@ip-172-31-92-17:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-92-17:/var/www/html$ cat index.nginx-debian.html
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
body {
width: 35em;
margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif;
}
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>,<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>

i-0017659e4bf4be969 (inst1)
PublicIPs: 18.205.113.85 PrivateIPs: 172.31.92.17
```

## Step 7: check the webpage using public ip address.

