

Part 1: Launch Cloud Instance & SSH Access

- Launch a cloud instance (AWS EC2 or Utho)
- Connect via SSH
- Install Nginx
- Configure security groups for web access (port 80 by default for nginx)
- Extract and save logs to a file
- Verify your webpage is accessible from the internet

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links for EC2, Dashboard, AWS Global View, Events, Instances (selected), Images, Elastic Block Store, Network & Security, Load Balancing, and IAM roles. The main content area displays a table of instances. One instance is selected and highlighted in blue: "CONNECT_SSH" (i-06536b052a6b26d32). The instance details are shown in a modal window below:

i-06536b052a6b26d32 (CONNECT_SSH)	
Details	
Instance ID	i-06536b052a6b26d32
IPv6 address	-
Hostname type	IP name: ip-172-31-27-150.us-west-2.compute.internal
Answer private resource DNS name	IPv4 (A)
Auto-assigned IP address	34.219.107.152 [Public IP]
IAM role	-

Below the modal, the instance summary table shows the following details:

Public IPv4 address	Private IP DNS name (IPv4 only)	Private IPv4 addresses
34.219.107.152 [open address]	ip-172-31-27-150.us-west-2.compute.internal	172.31.27.150
Running	t3.micro	Public DNS
VPC ID	VPC ID	ec2-34-219-107-152.us-west-2.compute.amazonaws.com [open address]
Subnet ID	Elastic IP addresses	AWS Compute Optimizer finding
-	-	Opt-in to AWS Compute Optimizer for recommendations. Learn more

```
The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-27-150:~$ 
ubuntu@ip-172-31-27-150:~$ 
ubuntu@ip-172-31-27-150:~$ 
ubuntu@ip-172-31-27-150:~$ 
ubuntu@ip-172-31-27-150:~$ cd /
ubuntu@ip-172-31-27-150:/$ ls
bin bin usr-is-merged boot dev etc home lib lib usr-is-merged lib64 lost+found media mnt opt proc root run sbin sbin usr-is-merged snap srv sys tmp usr var

ubuntu@ip-172-31-27-150:/$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
nginx-common
Suggested packages:
  https://certbot.eff.org/cert
The following NEW packages will be installed:
  nginx nginx-common
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 564 kB of archives.
After this operation, 1596 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.5 [43.4 kB]
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.5 [520 kB]
Fetched 564 kB in 0s (23.1 MB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 71752 files and directories currently installed.)
Preparing to unpack .../nginx-common_1.24.0-2ubuntu7.5_all.deb ...
Unpacking nginx-common (1.24.0-2ubuntu7.5)...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.24.0-2ubuntu7.5_amd64.deb ...
Unpacking nginx (1.24.0-2ubuntu7.5) ...
Setting up nginx-common (1.24.0-2ubuntu7.5) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.
Setting up nginx (1.24.0-2ubuntu7.5) ...
* Upgrading binary nginx
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for ufw (0.36.2-6) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-27-150:/$ 
```

```
ubuntu@ip-172-31-27-150:/$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
     Active: active (running) since Wed 2026-02-04 16:33:17 UTC; 2min 55s ago
       Docs: man:nginx(8)
   Process: 1396 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Process: 1398 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
 Main PID: 1428 (nginx)
    Tasks: 3 (limit: 1008)
      Memory: 2.4M (peak: 5.1M)
        CPU: 24ms
       CGroup: /system.slice/nginx.service
           ├─1428 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
           ├─1430 "nginx: worker process"
           └─1431 "nginx: worker process"

Feb 04 16:33:17 ip-172-31-27-150 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:33:17 ip-172-31-27-150 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-27-150:/$ sudo systemctl start nginx
ubuntu@ip-172-31-27-150:/$ 
```

Security Group Configuration

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.

sg-07c024abfc546e8c1 - launch-wizard-1

Actions ▾

Details		Description	VPC ID
Security group name <input checked="" type="checkbox"/> launch-wizard-1	Security group ID <input checked="" type="checkbox"/> sg-07c024abfc546e8c1	SG launch-wizard-1 created 2026-02-04T16:27:46.542Z	vpc-02cc413541600ea34 ⓘ
Owner <input checked="" type="checkbox"/> 419445613329	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules | Outbound rules | Sharing | VPC associations | Related resources - new | Tags

Inbound rules (1/2)

Manage tags | Edit inbound rules | < | 1 | > | ⌂

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Description
sgr-0fe3cbe57025a5bd	-	IPv4	HTTP	TCP	80	0.0.0.0/0	nginx
sgr-03ff6610a1bcfe479	-	IPv4	SSH	TCP	22	0.0.0.0/0	-

Extract Nginx Logs Save Logs to a File

```
ubuntu@ip-172-31-27-180:~$ sudo journalctl -u nginx
Feb 04 16:33:17 ip-172-31-27-180 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:33:17 ip-172-31-27-180 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-27-180:~$ sudo journalctl -u nginx
ubuntu@ip-172-31-27-180:~$ sudo journalctl -u nginx
Feb 04 16:33:17 ip-172-31-27-180 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:33:17 ip-172-31-27-180 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
Feb 04 16:41:07 ip-172-31-27-180 systemd[1]: Stopping nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:41:07 ip-172-31-27-180 systemd[1]: nginx.service: Deactivated successfully.
Feb 04 16:41:07 ip-172-31-27-180 systemd[1]: Stopped nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-27-180:~$ pwd
/
ubuntu@ip-172-31-27-180:~$ whoami
ubuntu
ubuntu@ip-172-31-27-180:~$ sudo cat /var/log/nginx/access.log
103.86.19.131 - - [04/Feb/2026:16:39:38 +0000] "GET / HTTP/1.1" 200 499 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36"
103.86.19.131 - - [04/Feb/2026:16:39:31 +0000] "GET /favicon.ico HTTP/1.1" 404 196 "http://34.219.107.152/*" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36"
ubuntu@ip-172-31-27-180:~$ sudo cat /var/log/nginx/access.log > nginx-logs.txt
-bash: nginx-logs.txt: Permission denied
ubuntu@ip-172-31-27-180:~$ chmod 777 nginx-logs.txt
chmod: cannot access 'nginx-logs.txt': No such file or directory
ubuntu@ip-172-31-27-180:~$ scp -i your-key.pem ubuntu@<your-instance-ip>:/nginx-logs.txt .
-bash: your-instance-ip: No such file or directory
ubuntu@ip-172-31-27-180:~$
```

