

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 displays the AWS Management Console interface for the EC2 service. The left-hand navigation pane shows various AWS services, with 'EC2' selected. The main content area is titled 'Instances (1/1)' and shows a table with one instance: 'CONNECT_SSH' with ID 'i-06536b052a6b26d32', state 'Running', and type 't3.micro'. Below the table, the 'Details' tab is active for the selected instance. The details are organized into three columns: Instance summary, Public IPv4 address, and Private IPv4 addresses. The instance summary shows the instance ID, IP name, IPv6 address, hostname type, answer private resource DNS name, auto-assigned IP address, and VPC ID. The public IPv4 address is 34.219.107.152. The private IPv4 address is 172.31.27.150. The instance is running in the us-west-2 region, availability zone ec2-34-219-107-152.us-west-2.compute.amazonaws.com. The instance type is t3.micro. The VPC ID is vpc-02cc413541600ea34. The instance is associated with the IAM role 'AutoScalingGroupRole'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
CONNECT_SSH	i-06536b052a6b26d32	Running	t3.micro	3/3 checks passed	View alarms	us-west-2b	ec2-34-219-107-152.us...	34.219.107.152	-

i-06536b052a6b26d32 (CONNECT_SSH)

Instance summary

Instance ID i-06536b052a6b26d32	Public IPv4 address 34.219.107.152 open address	Private IPv4 addresses 172.31.27.150
IPv6 address -	Instance state Running	Public DNS ec2-34-219-107-152.us-west-2.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-27-150.us-west-2.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-27-150.us-west-2.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t3.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto-assigned IP address 34.219.107.152 [Public IP]	VPC ID vpc-02cc413541600ea34	
IAM role AutoScalingGroupRole	Subnet ID subnet-02cc413541600ea34	

```

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:
  fcgiwrap nginx-doc ssl-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

Security group name

launch-wizard-1

Security group ID

sg-07c024abfc546e8c1

Description

launch-wizard-1 created 2026-02-04T16:27:46.542Z

VPC ID

vpc-02cc4135d1600ea34

Owner

419445613329

Inbound rules count

2 Permission entries

Outbound rules count

1 Permission entry

Inbound rules (1/2)

Manage tags

Edit inbound rules

Search

	Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Description
<input checked="" type="checkbox"/>	-	sgr-0efe3cbe37025a5bd	IPv4	HTTP	TCP	80	0.0.0.0/0	nginx
<input type="checkbox"/>	-	sgr-03ff6610a1bcfe479	IPv4	SSH	TCP	22	0.0.0.0/0	-

Extract Nginx Logs

Save Logs to a File

```
ubuntu@ip-172-31-27-158:~$ sudo journalctl -u nginx
Feb 04 16:33:17 ip-172-31-27-158 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:33:17 ip-172-31-27-158 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-27-158:~$ sudo systemctl stop nginx
ubuntu@ip-172-31-27-158:~$ sudo journalctl -u nginx
Feb 04 16:33:17 ip-172-31-27-158 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:33:17 ip-172-31-27-158 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
Feb 04 16:41:07 ip-172-31-27-158 systemd[1]: Stopping nginx.service - A high performance web server and a reverse proxy server...
Feb 04 16:41:07 ip-172-31-27-158 systemd[1]: nginx.service: Deactivated successfully.
Feb 04 16:41:07 ip-172-31-27-158 systemd[1]: Stopped nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-27-158:~$ pwd
/
ubuntu@ip-172-31-27-158:~$ whoami
ubuntu
ubuntu@ip-172-31-27-158:~$ sudo cat /var/log/nginx/access.log
103.86.19.131 - - [04/Feb/2026:16:39:30 +0000] "GET / HTTP/1.1" 200 489 "-" "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://34.219.187.152/" "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-172-31-27-158:~$ sudo cat /var/log/nginx/access.log > nginx-logs.txt
-bash: nginx-logs.txt: Permission denied
ubuntu@ip-172-31-27-158:~$ chmod 777 nginx-logs.txt
chmod: cannot access 'nginx-logs.txt': No such file or directory
ubuntu@ip-172-31-27-158:~$
ubuntu@ip-172-31-27-158:~$ scp -i your-key.pem ubuntu@<your-instance-ip>:~/nginx-logs.txt .
-bash: your-instance-ip: No such file or directory
ubuntu@ip-172-31-27-158:~$
```

