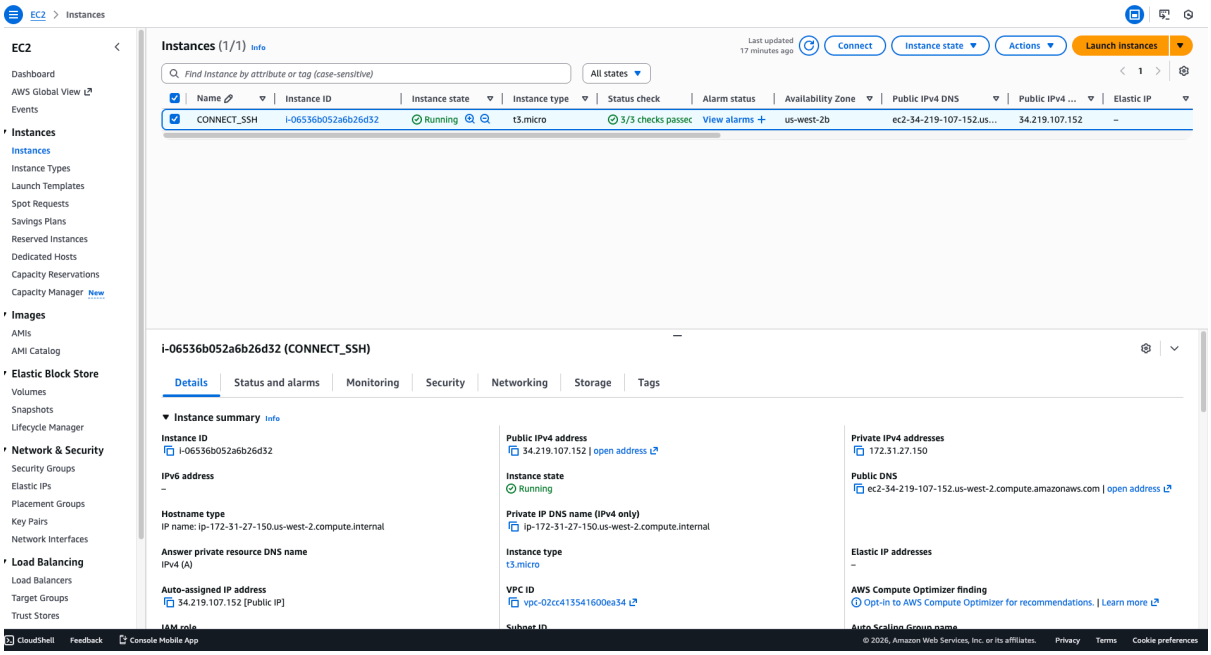
Part 1: Launch Cloud Instance & SSH Access

- 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 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:/$
```

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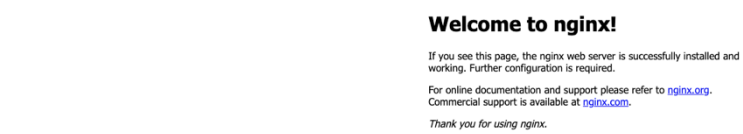
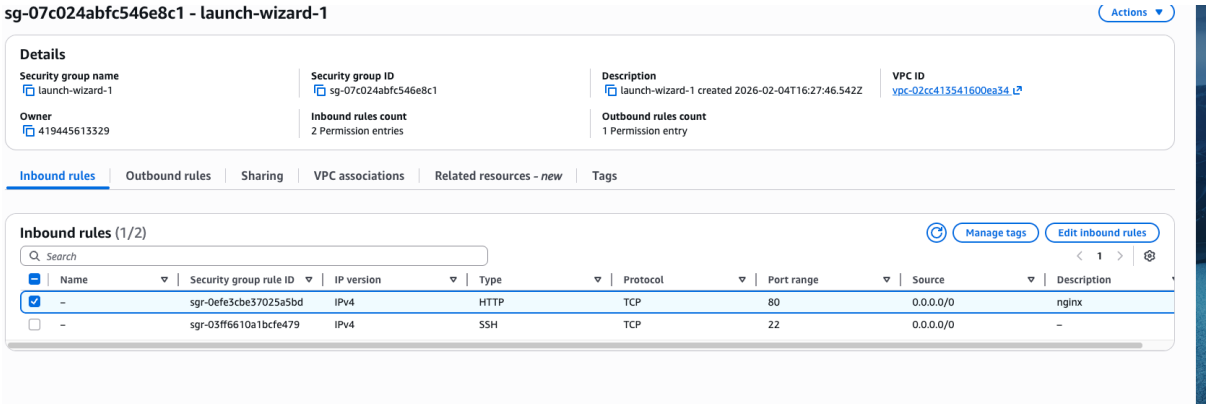
ubuntu@ip-172-31-27-150:/$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
     Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
     Active: active (running) since Wed 2026-02-04 16:33:17 UTC; 2min 55s ago
       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





Extract Nginx Logs
Save Logs to a File