Experiment 9

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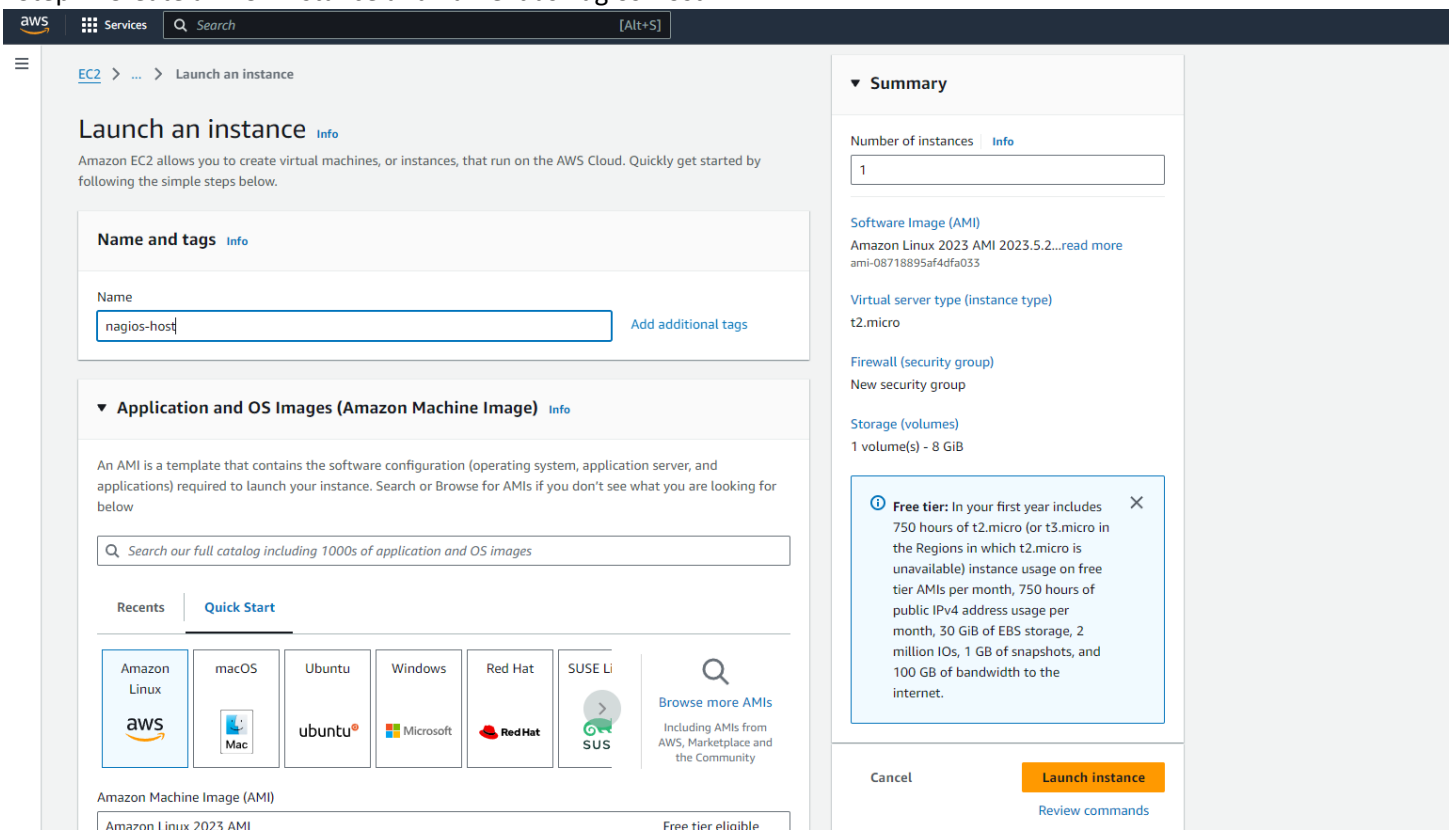
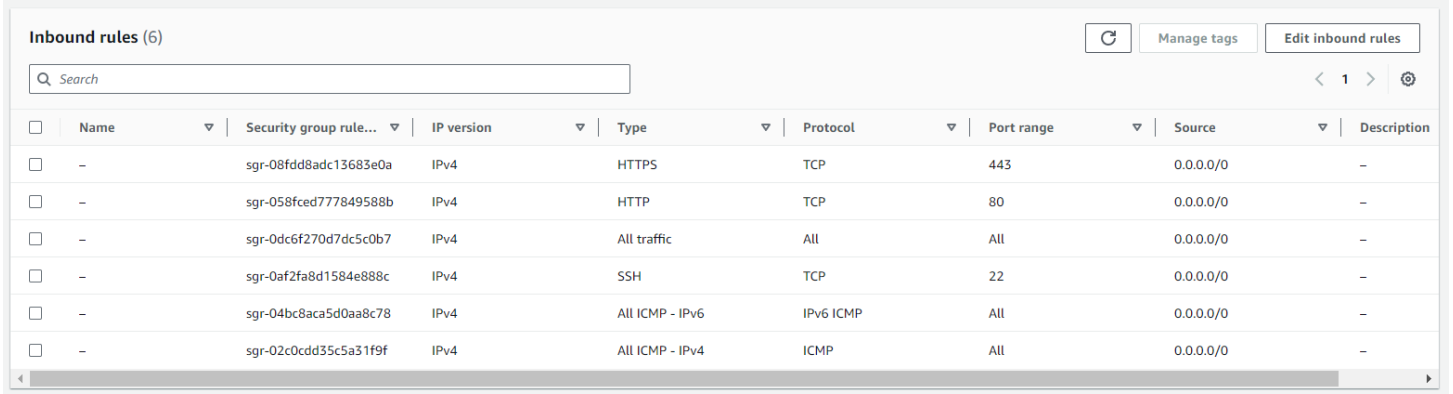
D15A 43

Aim: To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

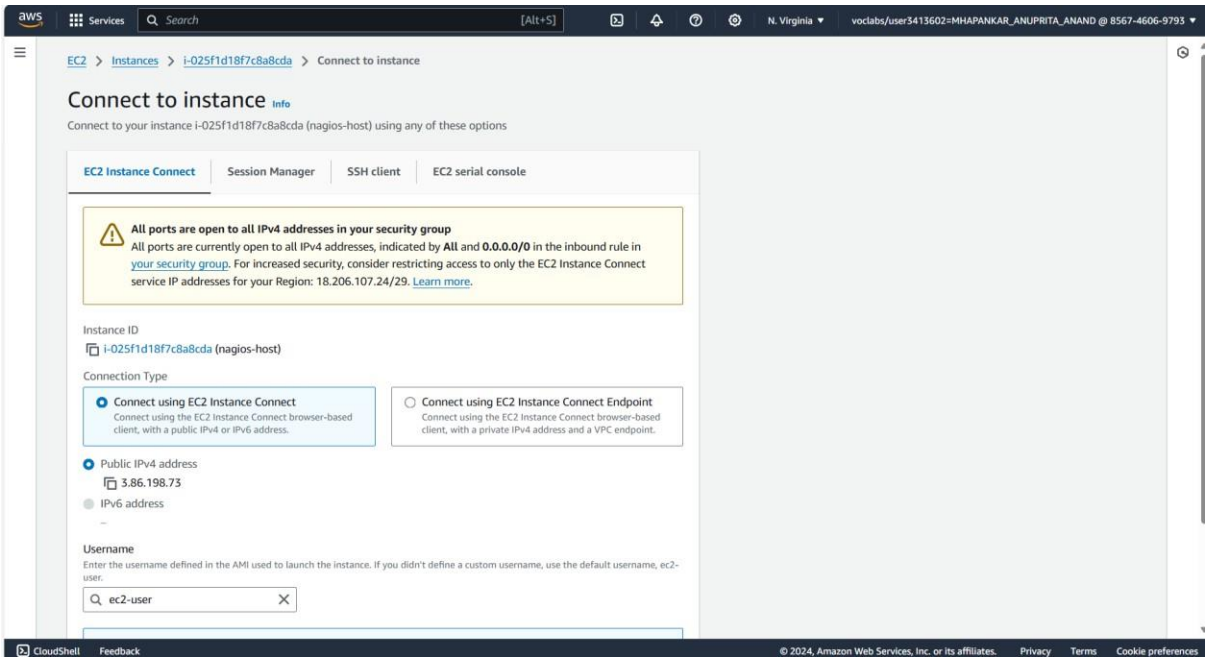
Step 1: Create an EC2 Instance and name it as nagios-host



Step 2: Under the security groups, click on edit inbound rules and set as shown in the figure below



Step 3: Then select the instance nagios-host and then connect the instance.



Step 3: Now, run the following commands -

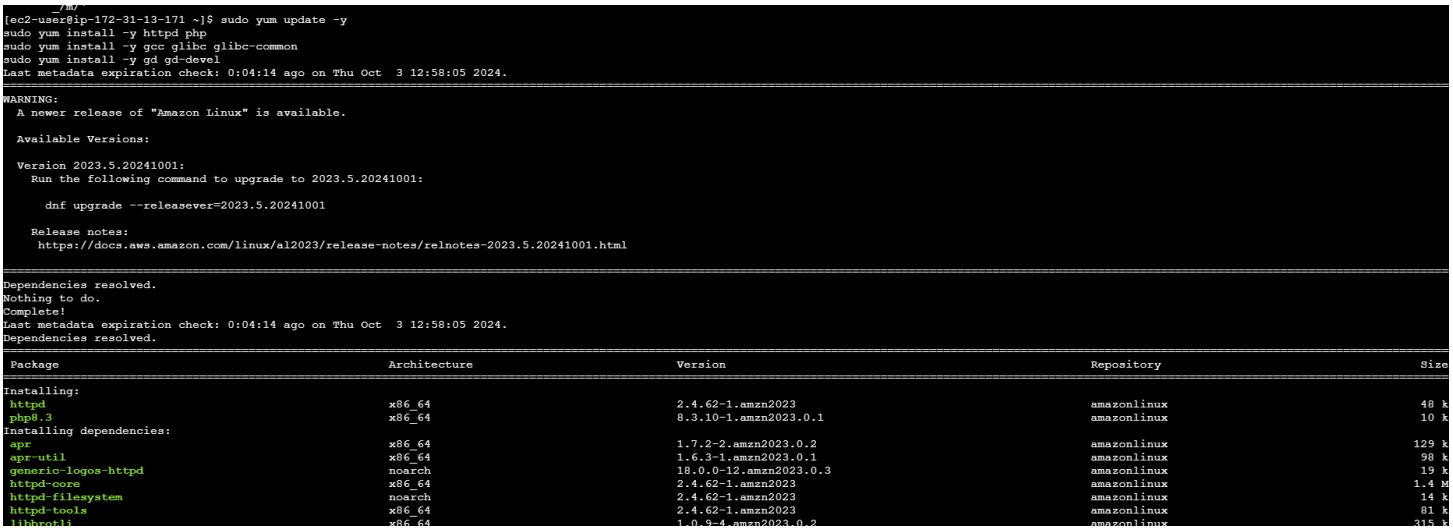
sudo su

sudo yum update

sudo yum install httpd php

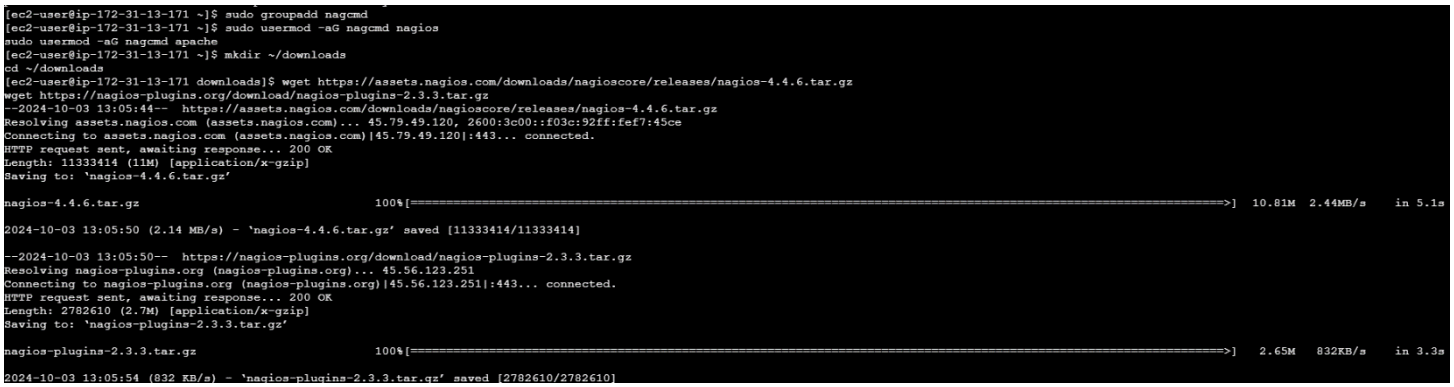
sudo yum install gcc glibc glibc-common

sudo yum install gd gd-devel

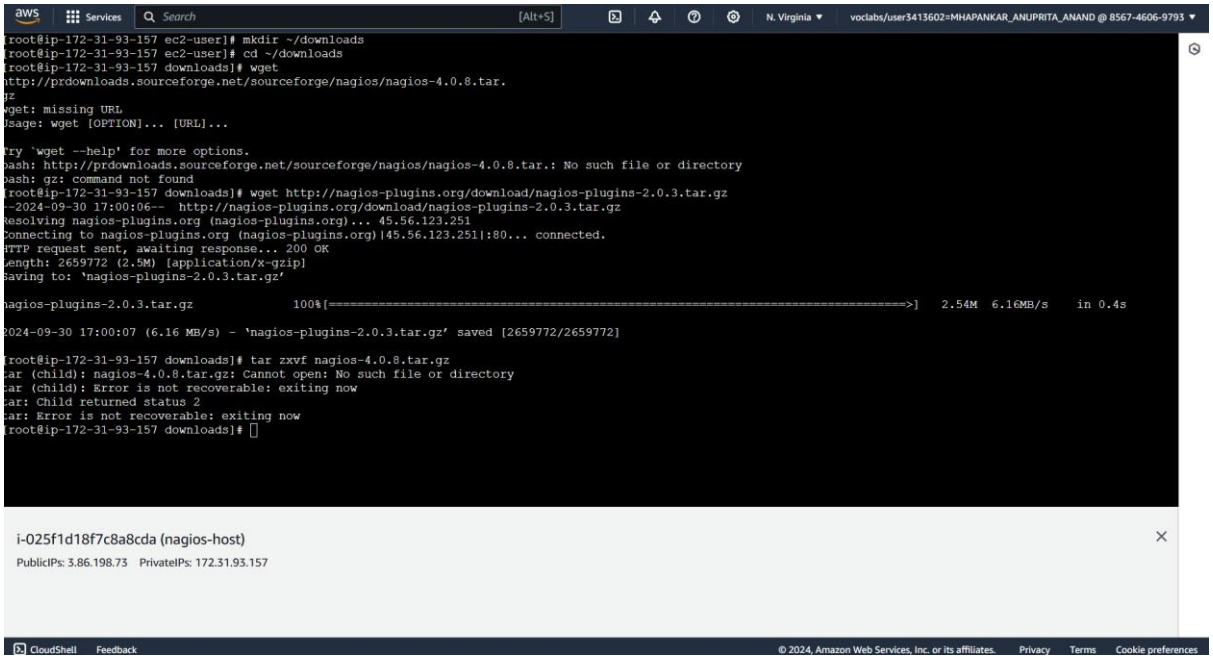


```
[ec2-user@ip-172-31-13-171 ~]$ sudo yum update -y
sudo yum install -y httpd php
sudo yum install -y gcc glibc glibc-common
sudo yum install -y gd gd-devel
Last metadata expiration check: 0:04:14 ago on Thu Oct  3 12:58:05 2024.
==========================================================================================
WARNING:
  A newer release of "Amazon Linux" is available.

  Available Versions:

  Version 2023.5.20241001:
    Run the following command to upgrade to 2023.5.20241001:

      dnf upgrade --releasever=2023.5.20241001

    Release notes:
     https://docs.aws.amazon.com/linux/al2023/release-notes/relnotes-2023.5.20241001.html
==========================================================================================
Dependencies resolved.
Nothing to do.
Complete!
Last metadata expiration check: 0:04:14 ago on Thu Oct  3 12:58:05 2024.
Dependencies resolved.
==========================================================================================
 Package                    Architecture                Version                     Repository                  Size
==========================================================================================
Installing:
 httpd                      x86_64                      2.4.62-1.amzn2023           amazonlinux                 48 k
 php8.3                     x86_64                      8.3.10-1.amzn2023.0.1       amazonlinux                 10 k
Installing dependencies:
 apr                        x86_64                      1.7.2-2.amzn2023.0.2        amazonlinux                129 k
 apr-util                   x86_64                      1.6.3-1.amzn2023.0.1        amazonlinux                 98 k
 generic-logos-httpd        noarch                      18.0.0-12.amzn2023.0.3      amazonlinux                 19 k
 httpd-core                 x86_64                      2.4.62-1.amzn2023           amazonlinux                1.4 M
 httpd-filesystem           noarch                      2.4.62-1.amzn2023           amazonlinux                 14 k
 httpd-tools                x86_64                      2.4.62-1.amzn2023           amazonlinux                 81 k
 libbrotli                  x86_64                      1.0.9-4.amzn2023.0.2        amazonlinux                315 k
```

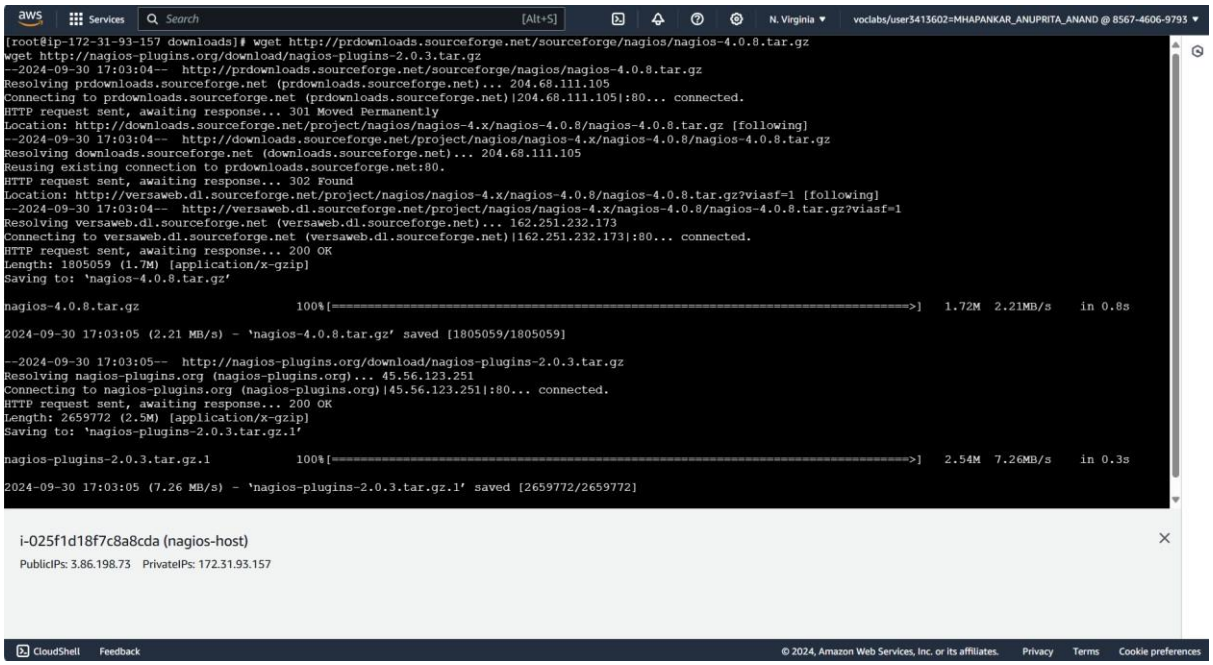
Step 4: Create a new nagios user with its password.
sudo adduser -m nagios
sudo passwd nagios
sudo groupadd nagcmd
sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache



Step 5: Now, run the following commands -
mkdir ~/downloads
cd ~/downloads
wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
tar zxvf nagios-4.0.8.tar.gz



To resolve the error run the following commands -
wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
tar zxvf nagios-4.0.8.tar.gz
tar zxvf nagios-plugins-2.0.3.tar.gz
cd nagios-4.0.8


aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3413602=MHAPANKAR_ANUPRITA_ANAND @ 8567-4606-9793
[root@ip-172-31-93-157 downloads]# wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
--2024-09-30 17:03:04-- http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
Resolving prdownloads.sourceforge.net (prdownloads.sourceforge.net)... 204.68.111.105
Connecting to prdownloads.sourceforge.net (prdownloads.sourceforge.net)|204.68.111.105|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: http://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]
--2024-09-30 17:03:04-- http://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz
Resolving downloads.sourceforge.net (downloads.sourceforge.net)... 204.68.111.105
Reusing existing connection to prdownloads.sourceforge.net:80.
HTTP request sent, awaiting response... 302 Found
Location: http://versaweb.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1 [following]
--2024-09-30 17:03:04-- http://versaweb.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)... 162.251.232.173
Connecting to versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)|162.251.232.173|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1805059 (1.7M) [application/x-gzip]
Saving to: 'nagios-4.0.8.tar.gz'
nagios-4.0.8.tar.gz 100%[=>] 1.72M 2.21MB/s in 0.8s
2024-09-30 17:03:05 (2.21 MB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]
--2024-09-30 17:03:05-- http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
Resolving nagios-plugins.org (nagios-plugins.org)... 45.56.123.251
Connecting to nagios-plugins.org (nagios-plugins.org)|45.56.123.251|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2659772 (2.5M) [application/x-gzip]
Saving to: 'nagios-plugins-2.0.3.tar.gz.1'
nagios-plugins-2.0.3.tar.gz.1 100%[=>] 2.54M 7.26MB/s in 0.3s
2024-09-30 17:03:05 (7.26 MB/s) - 'nagios-plugins-2.0.3.tar.gz.1' saved [2659772/2659772]
i-025f1d18f7c8a8cda (nagios-host)
PublicIPs: 3.86.198.73 PrivateIPs: 172.31.93.157
CloudShell
Feedback
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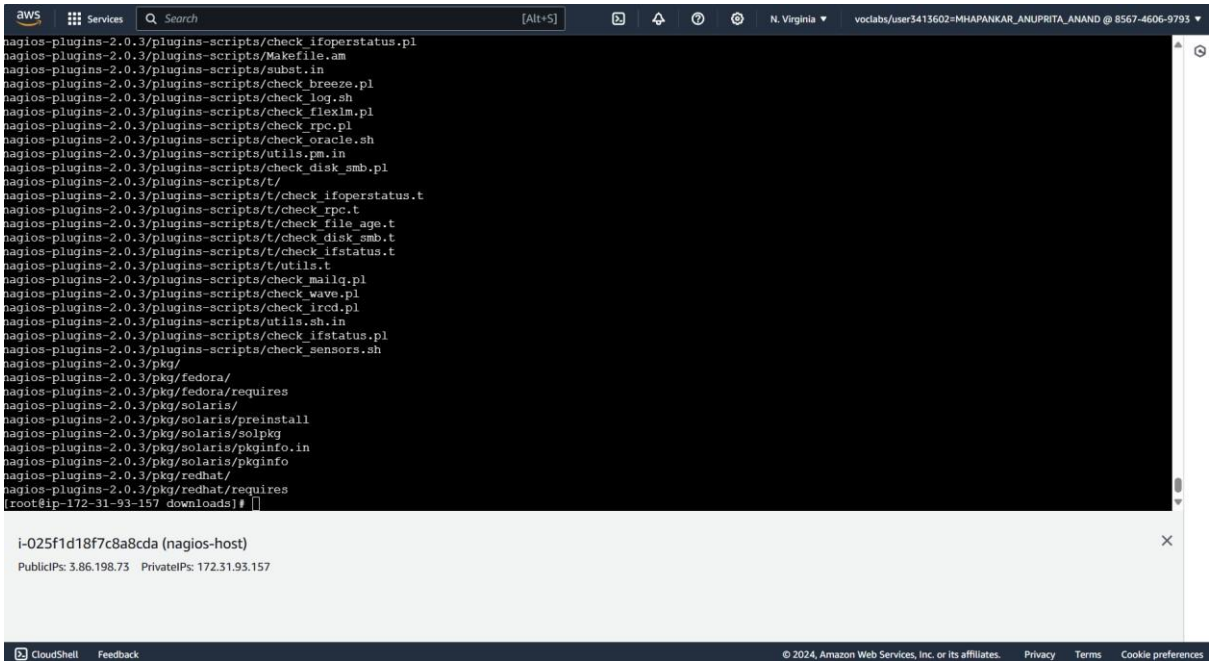
aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3413602=MHAPANKAR_ANUPRITA_ANAND @ 8567-4606-9793
nagios-plugins-2.0.3/plugins-scripts/check_ifoperstatus.pl
nagios-plugins-2.0.3/plugins-scripts/Makefile.am
nagios-plugins-2.0.3/plugins-scripts/subst.in
nagios-plugins-2.0.3/plugins-scripts/check_breeze.pl
nagios-plugins-2.0.3/plugins-scripts/check_log.sh
nagios-plugins-2.0.3/plugins-scripts/check_flexlm.pl
nagios-plugins-2.0.3/plugins-scripts/check_rpc.pl
nagios-plugins-2.0.3/plugins-scripts/check_oracle.sh
nagios-plugins-2.0.3/plugins-scripts/utils.pm.in
nagios-plugins-2.0.3/plugins-scripts/check_disk_smb.pl
nagios-plugins-2.0.3/plugins-scripts/t/
nagios-plugins-2.0.3/plugins-scripts/t/check_ifoperstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/check_rpc.t
nagios-plugins-2.0.3/plugins-scripts/t/check_file_age.t
nagios-plugins-2.0.3/plugins-scripts/t/check_disk_smb.t
nagios-plugins-2.0.3/plugins-scripts/t/check_ifstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/utils.t
nagios-plugins-2.0.3/plugins-scripts/check_mailq.pl
nagios-plugins-2.0.3/plugins-scripts/check_wave.pl
nagios-plugins-2.0.3/plugins-scripts/check_ircd.pl
nagios-plugins-2.0.3/plugins-scripts/utils.sh.in
nagios-plugins-2.0.3/plugins-scripts/check_ifstatus.pl
nagios-plugins-2.0.3/plugins-scripts/check_sensors.sh
nagios-plugins-2.0.3/pkg/
nagios-plugins-2.0.3/pkg/fedora/
nagios-plugins-2.0.3/pkg/fedora/requires
nagios-plugins-2.0.3/pkg/solaris/
nagios-plugins-2.0.3/pkg/solaris/preinstall
nagios-plugins-2.0.3/pkg/solaris/solpkg
nagios-plugins-2.0.3/pkg/solaris/pkginfo.in
nagios-plugins-2.0.3/pkg/solaris/pkginfo
nagios-plugins-2.0.3/pkg/redhat/
nagios-plugins-2.0.3/pkg/redhat/requires
[root@ip-172-31-93-157 downloads]#
i-025f1d18f7c8a8cda (nagios-host)
PublicIPs: 3.86.198.73 PrivateIPs: 172.31.93.157
CloudShell
Feedback
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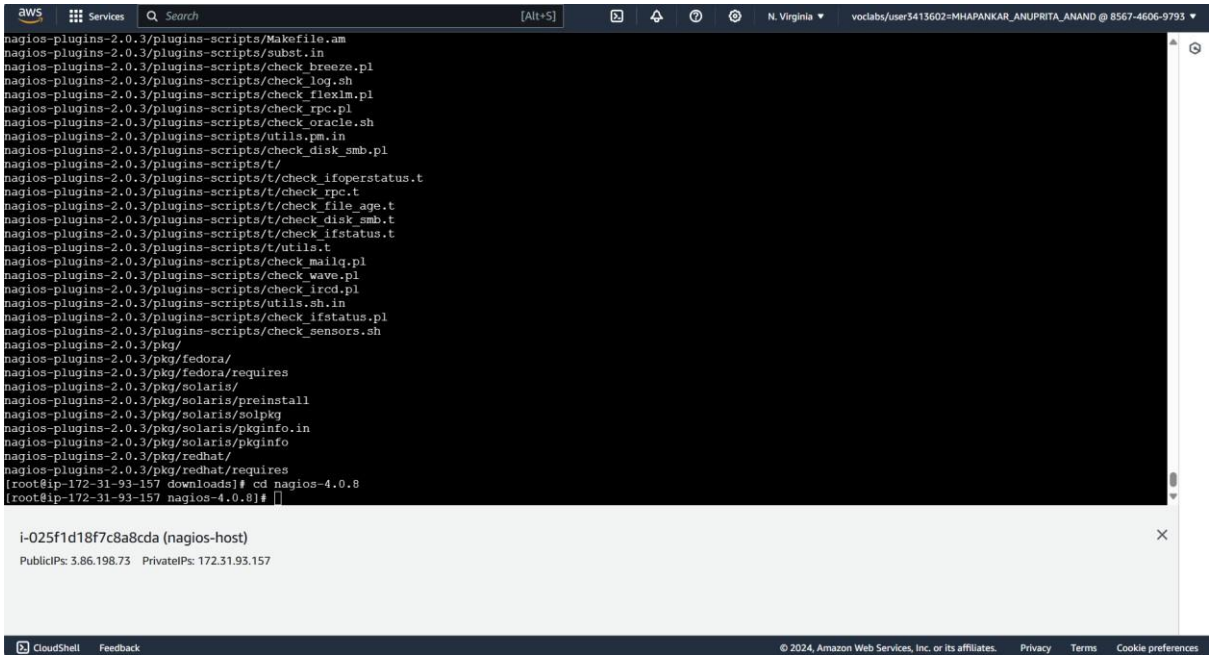
aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3413602=MHAPANKAR_ANUPRITA_ANAND @ 8567-4606-9793
nagios-plugins-2.0.3/plugins-scripts/Makefile.am
nagios-plugins-2.0.3/plugins-scripts/subst.in
nagios-plugins-2.0.3/plugins-scripts/check_breeze.pl
nagios-plugins-2.0.3/plugins-scripts/check_log.sh
nagios-plugins-2.0.3/plugins-scripts/check_flexlm.pl
nagios-plugins-2.0.3/plugins-scripts/check_rpc.pl
nagios-plugins-2.0.3/plugins-scripts/check_oracle.sh
nagios-plugins-2.0.3/plugins-scripts/utils.pm.in
nagios-plugins-2.0.3/plugins-scripts/check_disk_smb.pl
nagios-plugins-2.0.3/plugins-scripts/t/
nagios-plugins-2.0.3/plugins-scripts/t/check_ifoperstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/check_rpc.t
nagios-plugins-2.0.3/plugins-scripts/t/check_file_age.t
nagios-plugins-2.0.3/plugins-scripts/t/check_disk_smb.t
nagios-plugins-2.0.3/plugins-scripts/t/check_ifstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/utils.t
nagios-plugins-2.0.3/plugins-scripts/check_mailq.pl
nagios-plugins-2.0.3/plugins-scripts/check_wave.pl
nagios-plugins-2.0.3/plugins-scripts/check_ircd.pl
nagios-plugins-2.0.3/plugins-scripts/utils.sh.in
nagios-plugins-2.0.3/plugins-scripts/check_ifstatus.pl
nagios-plugins-2.0.3/plugins-scripts/check_sensors.sh
nagios-plugins-2.0.3/pkg/
nagios-plugins-2.0.3/pkg/fedora/
nagios-plugins-2.0.3/pkg/fedora/requires
nagios-plugins-2.0.3/pkg/solaris/
nagios-plugins-2.0.3/pkg/solaris/preinstall
nagios-plugins-2.0.3/pkg/solaris/solpkg
nagios-plugins-2.0.3/pkg/solaris/pkginfo.in
nagios-plugins-2.0.3/pkg/solaris/pkginfo
nagios-plugins-2.0.3/pkg/redhat/
nagios-plugins-2.0.3/pkg/redhat/requires
[root@ip-172-31-93-157 downloads]# cd nagios-4.0.8
[root@ip-172-31-93-157 nagios-4.0.8]#
i-025f1d18f7c8a8cda (nagios-host)
PublicIPs: 3.86.198.73 PrivateIPs: 172.31.93.157
CloudShell
Feedback
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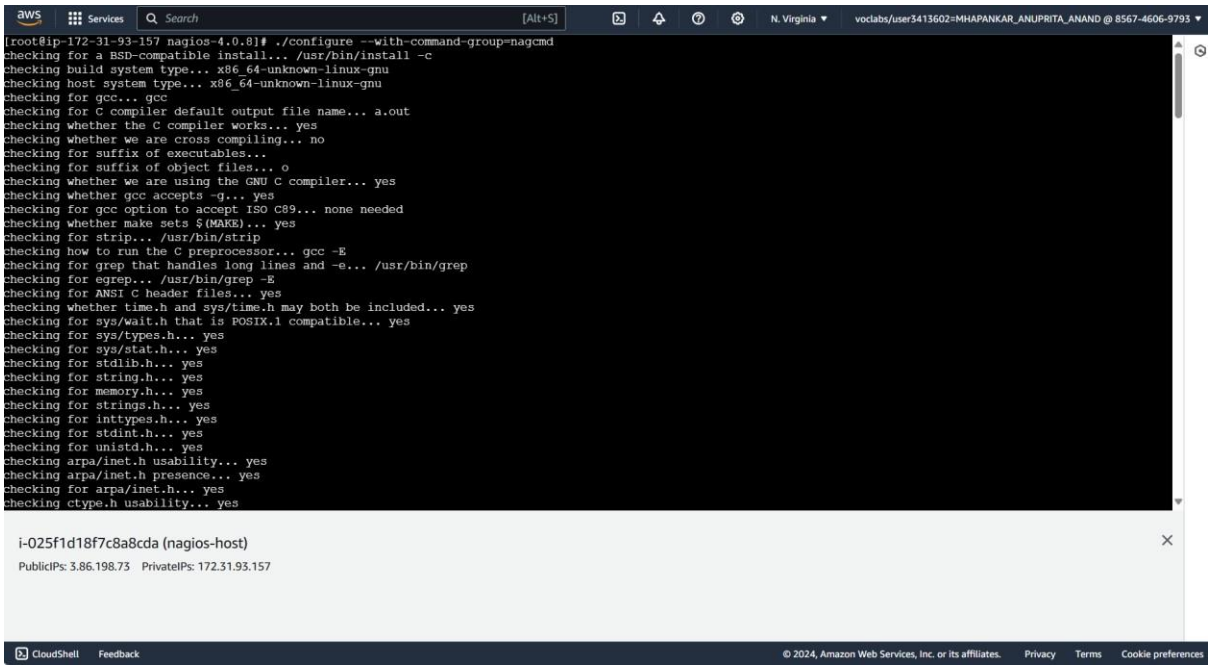
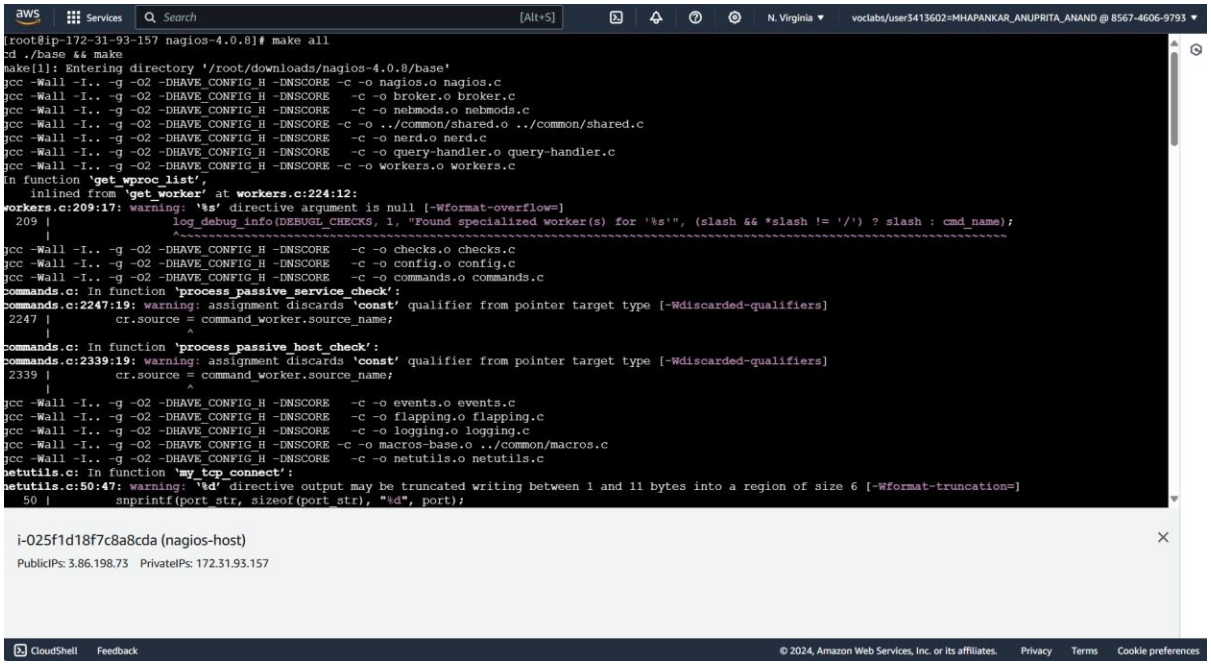
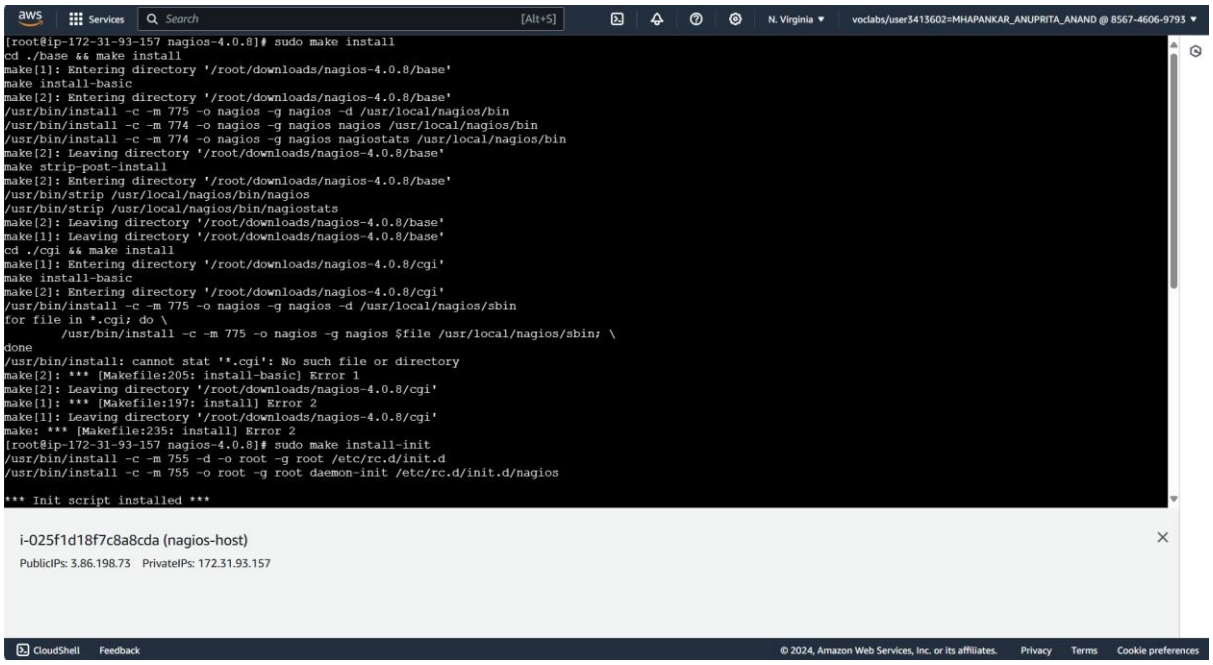
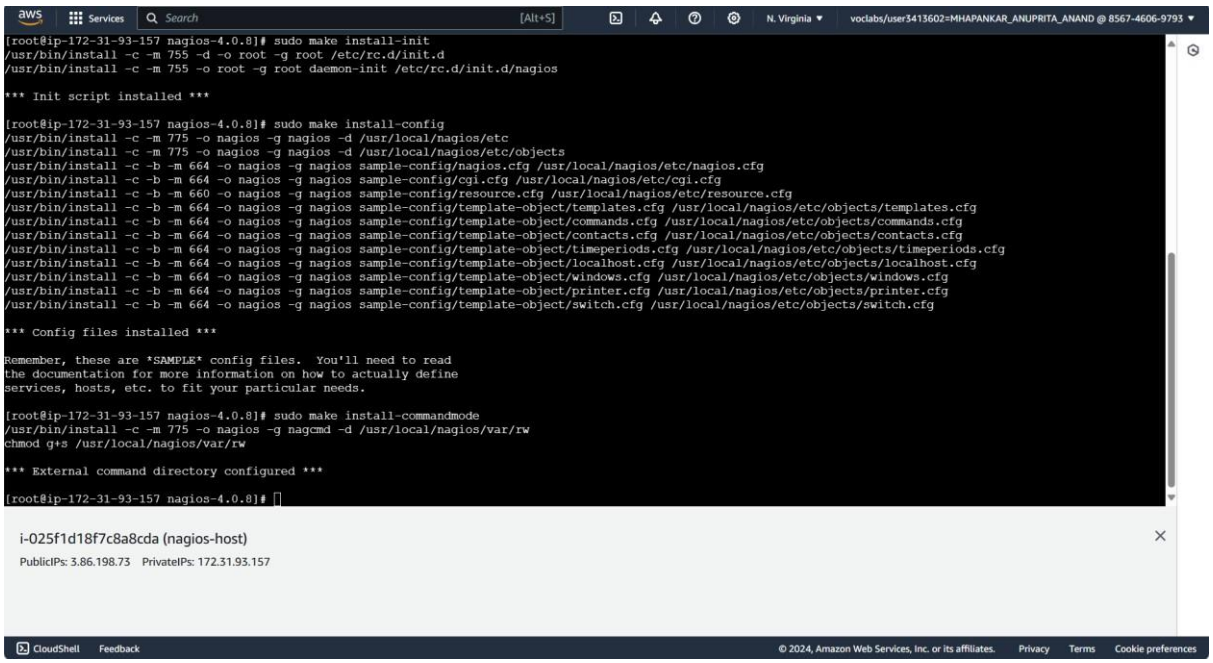
Step 6: Now to run the configuration script run the following command.
./configure --with-command-group=nagcmd



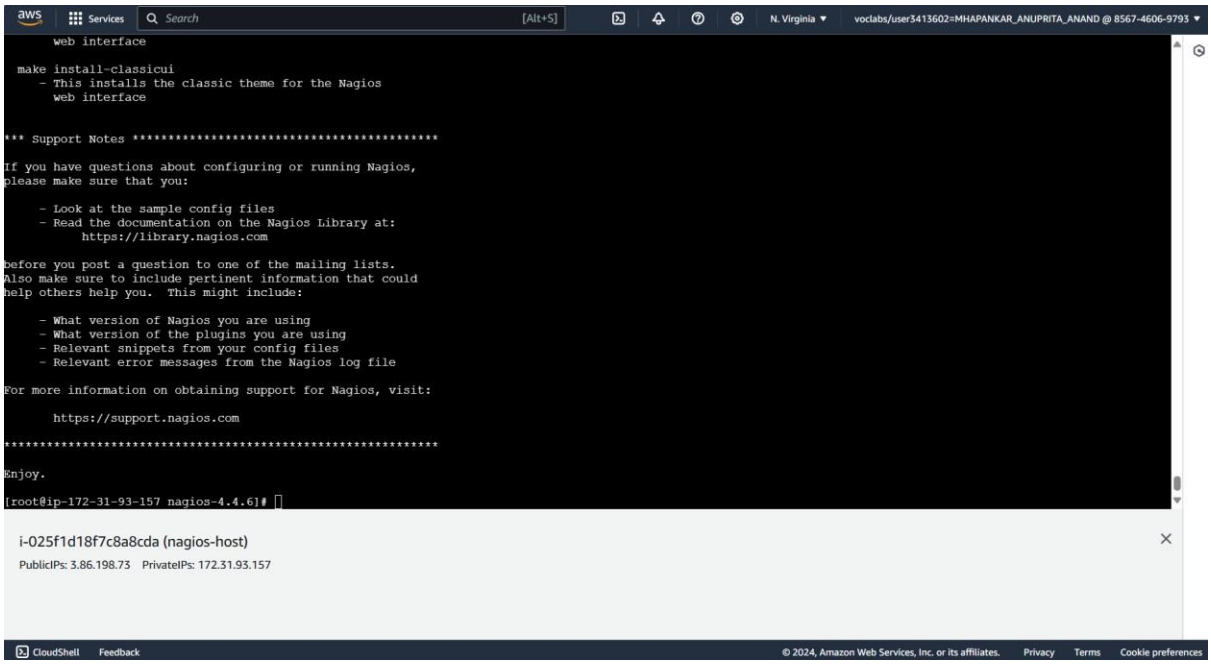
Step 7: Now, to compile the source code run the following command -
make all



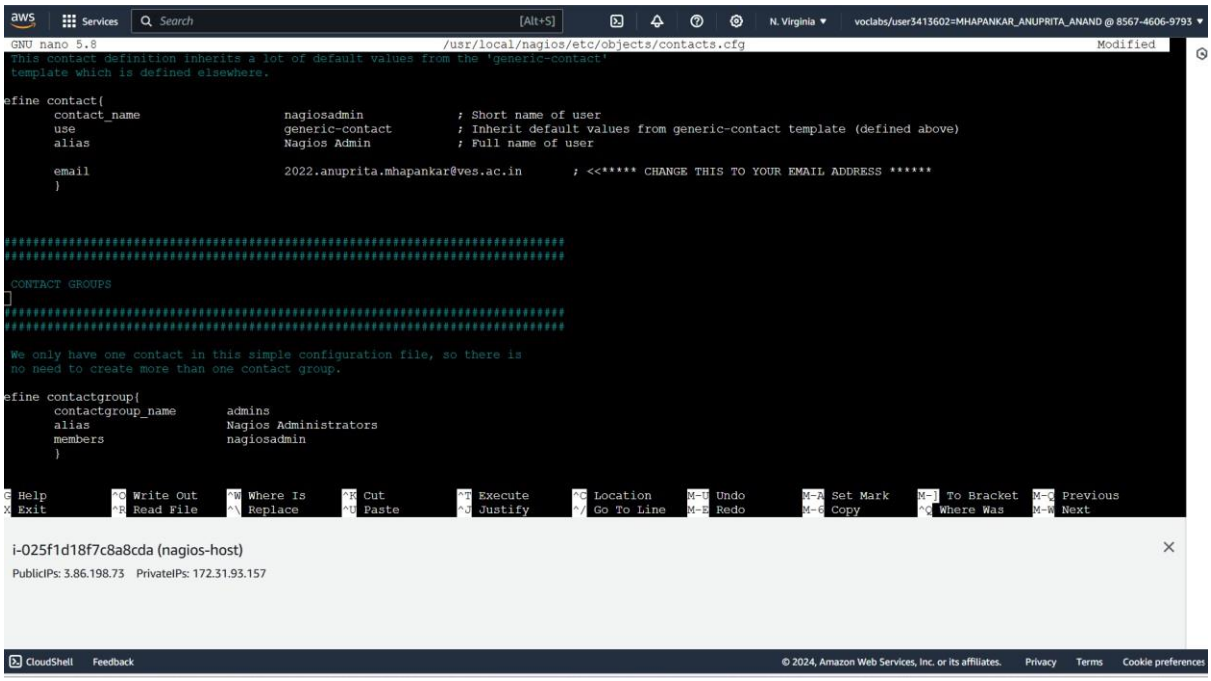




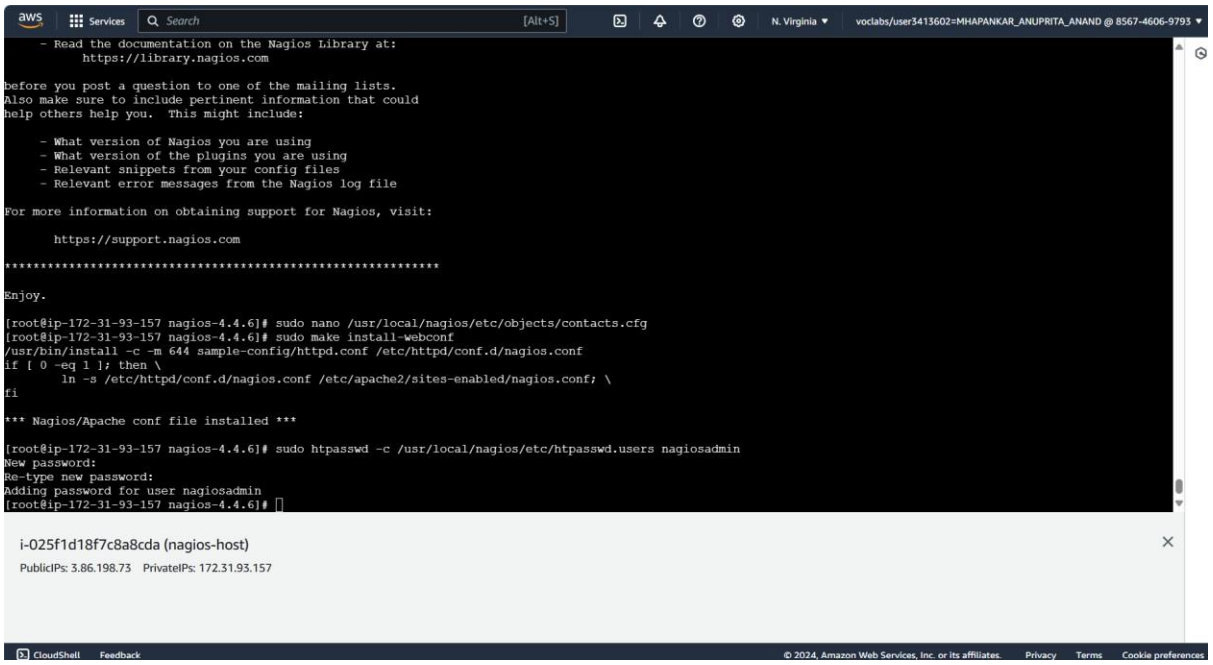
To resolve the errors run the following commands -
sudo yum install -y gcc glibc glibc-common gd gd-devel make net-snmp openssl-devel
rm -rf nagios-4.0.8
cd ~/downloads/nagios-4.4.6
./configure --with-command-group=nagcmd
make all
sudo make install

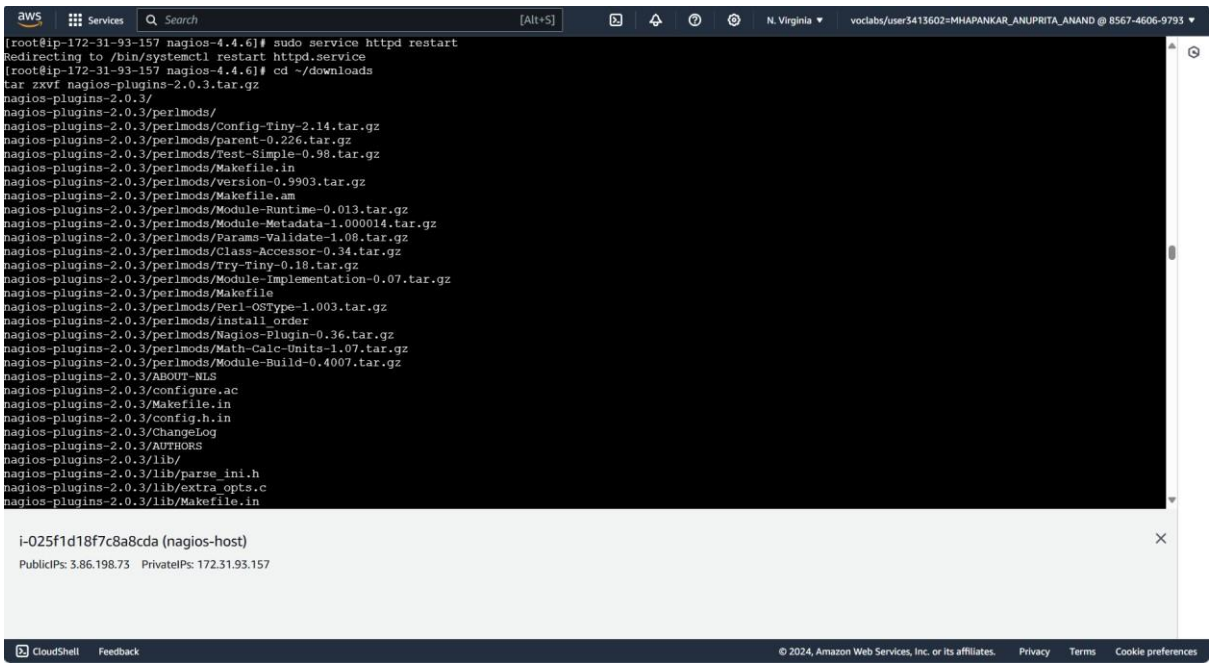


Step 8: Edit the config file and change the email address.
sudo nano /usr/local/nagios/etc/objects/contacts.cfg

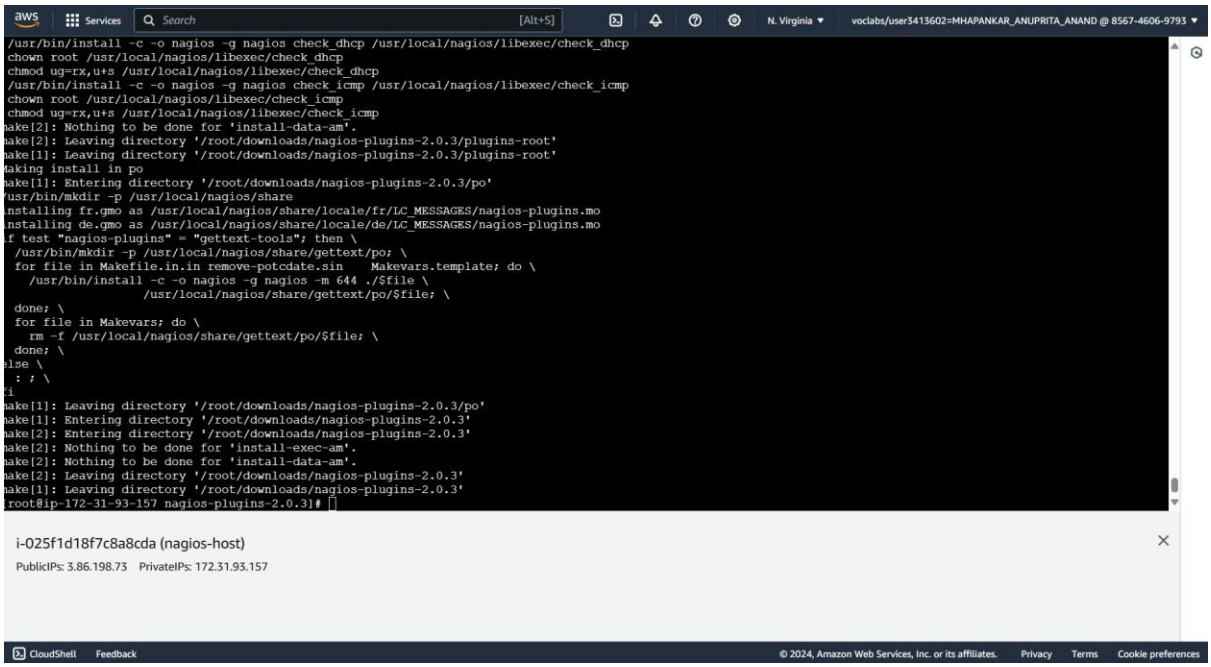


Step 9: Now run the following commands –
sudo make install-webconf
sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
sudo service httpd restart
cd ~/downloads
tar zxvf nagios-plugins-2.0.3.tar.gz





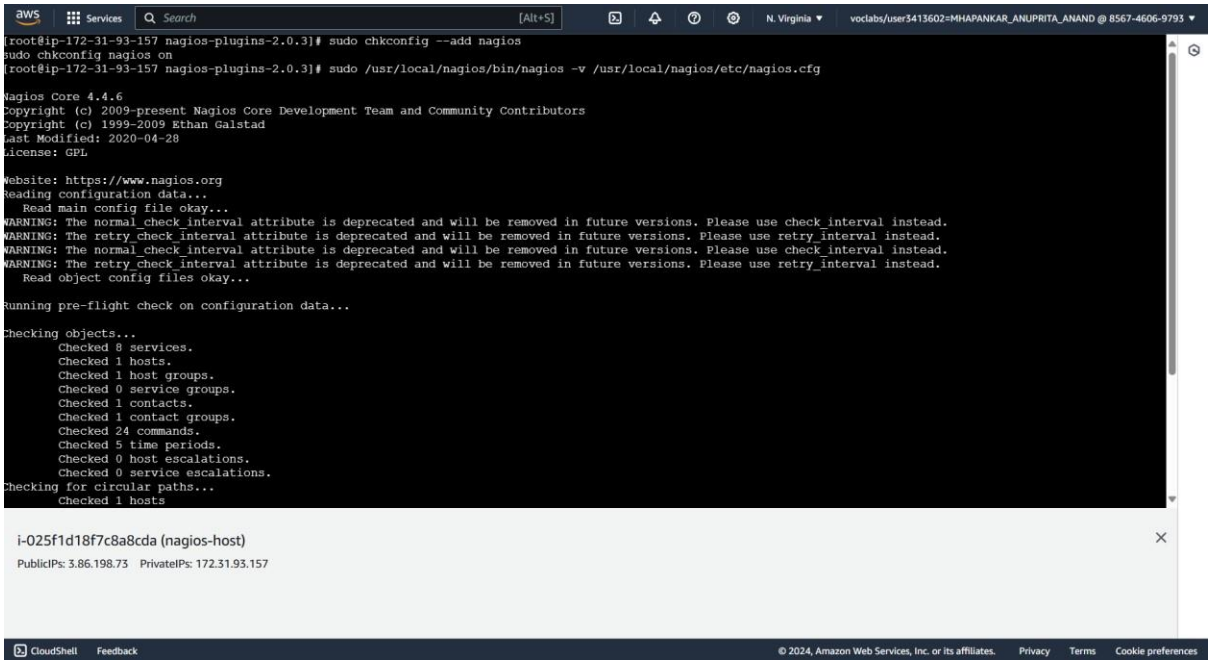
Step 10: Compile and install plugins
cd nagios-plugins-2.0.3
./configure --with-nagios-user=nagios --with-nagios-group=nagios
make
sudo make install



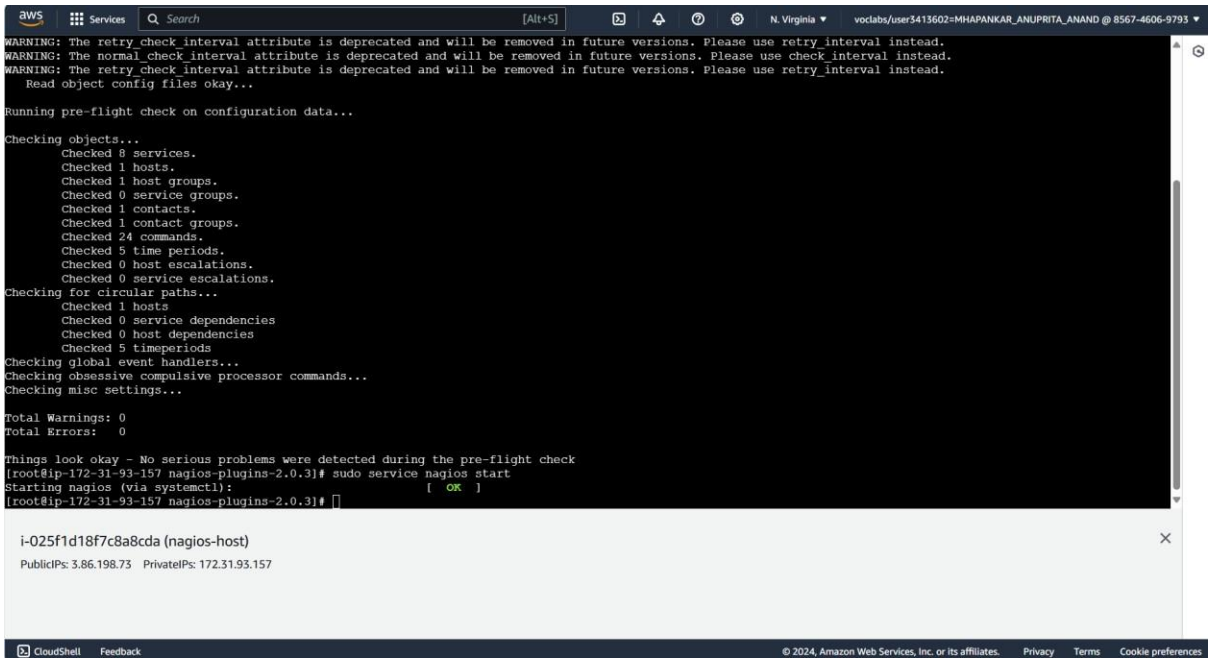
Step 11: To start nagios run the following commands –
sudo chkconfig --add nagios

sudo chkconfig nagios on

Verify using the following command -
sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg



If there are no errors run the following command –
sudo service nagios start

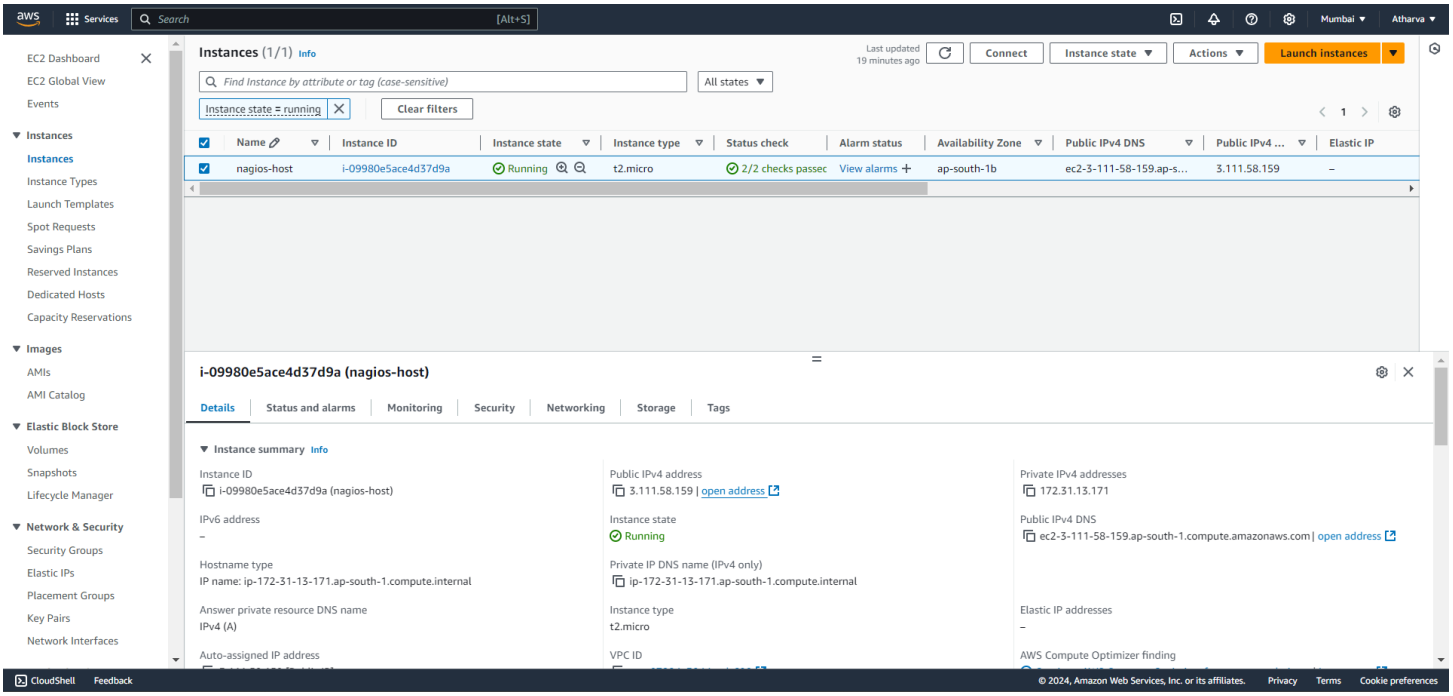
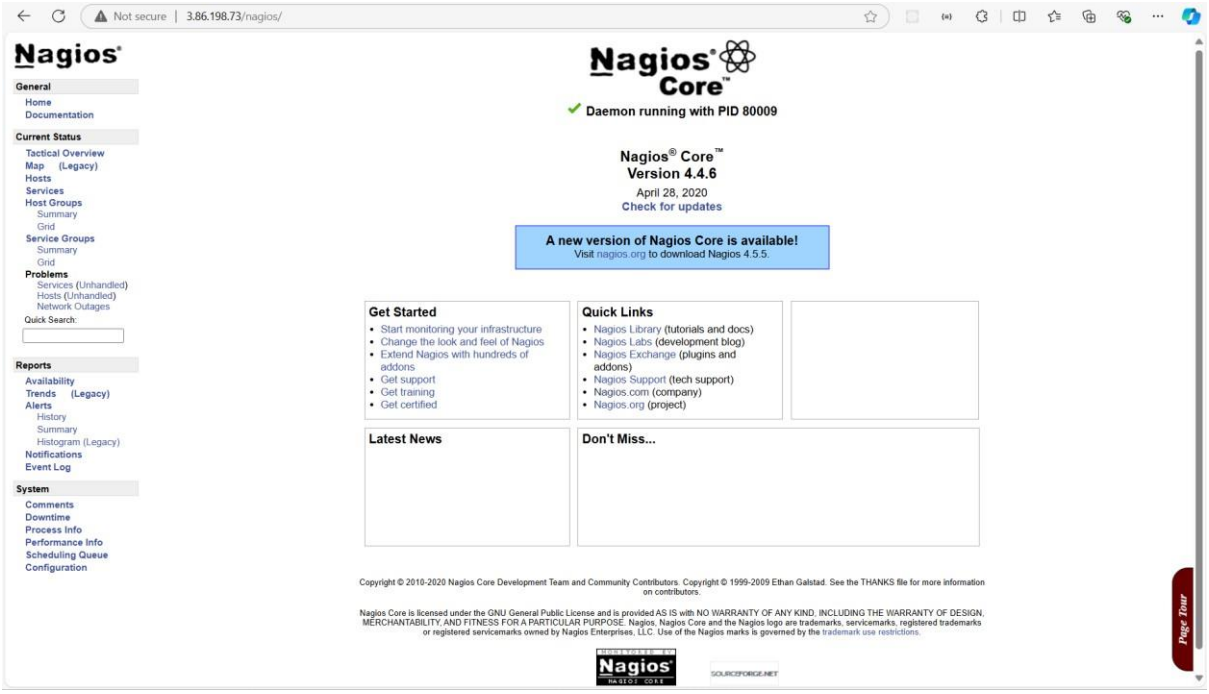


Check status using the following command -
sudo systemctl status nagios

```
[ec2-user@ip-172-31-13-171 nagios-plugins-2.3.3]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.4.6
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
     Active: active (running) since Thu 2024-10-03 13:18:35 UTC; 13s ago
       Docs: https://www.nagios.org/documentation
    Process: 67878 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
    Process: 67879 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Main PID: 67880 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 2.0M
        CPU: 18ms
     CGroup: /system.slice/nagios.service
             ├─67880 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─67881 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─67882 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─67883 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─67884 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─67885 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: qh: Socket '/usr/local/nagios/var/rw/nagios.qh' successfully initialized
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: qh: core query handler registered
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: qh: echo service query handler registered
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: qh: help for the query handler registered
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: wproc: Successfully registered manager as @wproc with query handler
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: wproc: Registry request: name=Core Worker 67884;pid=67884
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: wproc: Registry request: name=Core Worker 67883;pid=67883
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: wproc: Registry request: name=Core Worker 67882;pid=67882
Oct 03 13:18:35 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: wproc: Registry request: name=Core Worker 67881;pid=67881
Oct 03 13:18:36 ip-172-31-13-171.ap-south-1.compute.internal nagios[67880]: Successfully launched command file worker with pid 67885
[ec2-user@ip-172-31-13-171 nagios-plugins-2.3.3]$
```

Step 12: Go to EC2 instance and copy the public IP address of the instance



Step 13: Now visit http://<your_public_ip_address>/nagios Enter correct credentials and then you will see this page.