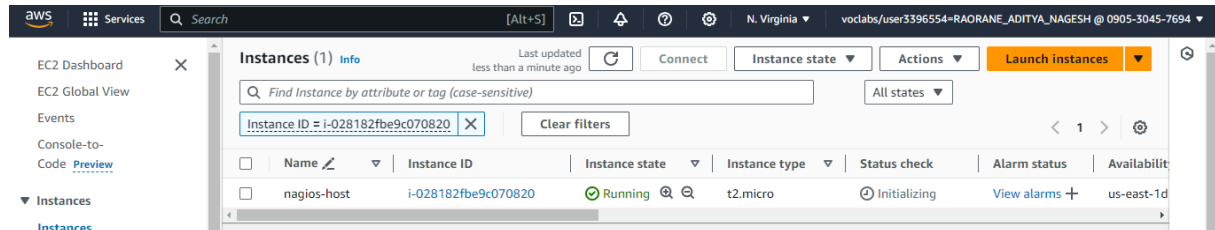
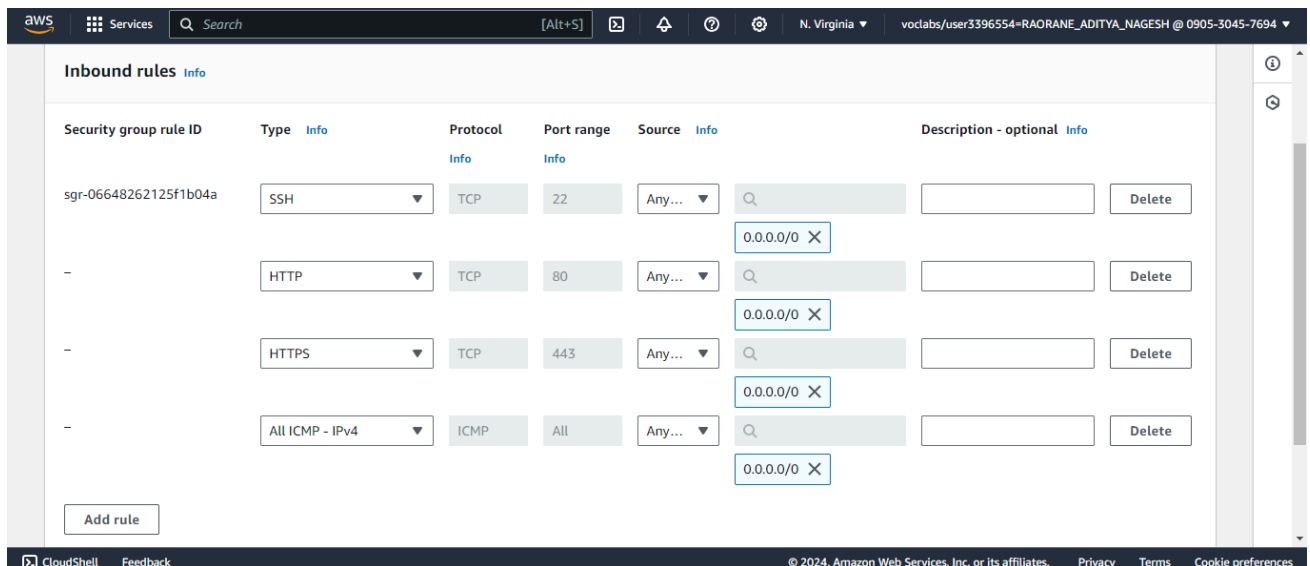


**Aim:** To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

1. Create an Amazon Linux EC2 Instance in AWS and name it - nagios-host



2. Under Security Group, make sure HTTP, HTTPS, SSH, ICMP are open from everywhere.





```

[ec2-user@ip-172-31-84-15: ~]$
Installed:
  brotli-1.0.9-4.amzn2023.0.2.x86_64
  bzip2-devel-1.0.8-6.amzn2023.0.2.x86_64
  cmake-filesystem-3.22.2-1.amzn2023.0.4.x86_64
  fontconfig-devel-2.13.94-2.amzn2023.0.2.x86_64
  freetype-devel-2.13.2-5.amzn2023.0.1.x86_64
  gd-2.3.3-5.amzn2023.0.3.x86_64
  glib2-devel-2.74.7-689.amzn2023.0.2.x86_64
  google-noto-sans-vf-fonts-20201206-2.amzn2023.0.2.noarch
  graphite2-devel-1.3.14-7.amzn2023.0.2.x86_64
  harfbuzz-devel-7.0.0-2.amzn2023.0.1.x86_64
  harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64
  harfbuzz-core-font-en-3.0-21.amzn2023.0.4.noarch
  libSM-1.2.3-8.amzn2023.0.2.x86_64
  libX11-common-1.7.2-3.amzn2023.0.4.noarch
  libX11-xcb-1.7.2-3.amzn2023.0.4.x86_64
  libXau-devel-1.0.9-6.amzn2023.0.2.x86_64
  libXpm-3.5.15-2.amzn2023.0.3.x86_64
  libXrender-0.9.10-14.amzn2023.0.2.x86_64
  libblkid-devel-2.37.4-1.amzn2023.0.4.x86_64
  libicu-67.1-7.amzn2023.0.3.x86_64
  libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64
  libmount-devel-2.37.4-1.amzn2023.0.4.x86_64
  libpng-2.1.6-37.10.amzn2023.0.6.x86_64
  libsepol-devel-3.4-3.amzn2023.0.3.x86_64
  libtiff-devel-4.4.0-4.amzn2023.0.18.x86_64
  libwebp-1.2.4-1.amzn2023.0.6.x86_64
  libxcb-devel-1.13.1-7.amzn2023.0.2.x86_64
  libxml2-devel-2.10.4-1.amzn2023.0.6.x86_64
  pcre2-utf16-10.40-1.amzn2023.0.3.x86_64
  pixman-0.40.0-3.amzn2023.0.3.x86_64
  xml-common-0.6.3-56.amzn2023.0.2.noarch
  xz-devel-5.2.5-9.amzn2023.0.2.x86_64

brotli-devel-1.0.9-4.amzn2023.0.2.x86_64
cairo-1.17.6-2.amzn2023.0.1.x86_64
fontconfig-2.13.94-2.amzn2023.0.2.x86_64
fonts-filestream-1.2.0.5-12.amzn2023.0.2.noarch
freetype-devel-2.13.2-5.amzn2023.0.1.x86_64
gd-devel-2.3.3-5.amzn2023.0.3.x86_64
google-noto-fonts-common-20201206-2.amzn2023.0.2.noarch
graphite2-1.3.14-7.amzn2023.0.2.x86_64
harfbuzz-7.0.0-2.amzn2023.0.1.x86_64
harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64
harfbuzz-core-font-en-3.0-21.amzn2023.0.4.noarch
libSM-1.2.3-8.amzn2023.0.2.x86_64
libX11-common-1.7.2-3.amzn2023.0.4.noarch
libX11-xcb-1.7.2-3.amzn2023.0.4.x86_64
libXau-devel-1.0.9-6.amzn2023.0.2.x86_64
libXpm-3.5.15-2.amzn2023.0.3.x86_64
libXrender-0.9.10-14.amzn2023.0.2.x86_64
libblkid-devel-2.37.4-1.amzn2023.0.4.x86_64
libicu-67.1-7.amzn2023.0.3.x86_64
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64
libmount-devel-2.37.4-1.amzn2023.0.4.x86_64
libpng-devel-2.1.6-37.10.amzn2023.0.6.x86_64
libsepol-devel-3.4-3.amzn2023.0.3.x86_64
libtiff-devel-4.4.0-4.amzn2023.0.18.x86_64
libwebp-devel-1.2.4-1.amzn2023.0.6.x86_64
libxcb-devel-1.13.1-7.amzn2023.0.2.x86_64
pcre2-devel-10.40-1.amzn2023.0.3.x86_64
pcre2-utf32-10.40-1.amzn2023.0.3.x86_64
sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64
xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch
zlib-devel-1.2.11-33.amzn2023.0.5.x86_64

Complete!
[ec2-user@ip-172-31-84-15: ~]$

```

5. Create a new Nagios User with its password. You'll have to enter the password twice for confirmation. (adityaraorane)

```
sudo adduser -m nagios
```

```
sudo passwd nagios
```

```
[ec2-user@ip-172-31-84-15 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-84-15 ~]$
```

## 6. Create a new user group

```
sudo groupadd nagcmd
```

## 7. Use these commands so that you don't have to use sudo for Apache and Nagios

```
sudo usermod -a -G nagcmd nagios
```

```
sudo usermod -a -G nagcmd apache
```

## 8. Create a new directory for Nagios downloads

```
mkdir ~/downloads
```

```
cd ~/downloads
```

```
[ec2-user@ip-172-31-84-15 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-84-15 ~]$ sudo usermod -aG nagcmd nagios
sudo usermod -aG nagcmd apache
[ec2-user@ip-172-31-84-15 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-84-15 downloads]$ |
```

9. Use wget to download the source zip files.

wget <https://go.nagios.org//975333/2024-09-17/6kqcx>

wget <https://nagios-plugins.org/download/nagios-plugins-2.4.11.tar.gz>

```
ec2-user@ip-172-31-84-15:~/k X + v
[ec2-user@ip-172-31-84-15 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
--2024-09-23 08:33:27-- 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]
--2024-09-23 08:33:27-- 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://pilotfiber.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1 [following]
--2024-09-23 08:33:27-- http://pilotfiber.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving pilotfiber.dl.sourceforge.net (pilotfiber.dl.sourceforge.net)... 216.158.133.250
Connecting to pilotfiber.dl.sourceforge.net (pilotfiber.dl.sourceforge.net)[216.158.133.250]: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  10.8MB/s  in 0.2s

2024-09-23 08:33:28 (10.8 MB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]

--2024-09-23 08:33:28-- 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'

nagios-plugins-2.0.3.tar.gz  100%[=====] 2.54M  8.81MB/s  in 0.3s

2024-09-23 08:33:28 (8.81 MB/s) - 'nagios-plugins-2.0.3.tar.gz' saved [2659772/2659772]

[ec2-user@ip-172-31-84-15 downloads]$ |
```

10. Use tar to unzip and change to that directory.

tar zxvf nagios-4.5.5.tar.gz

cd nagios-4.5.5

```
Command Prompt
[ec2-user@ip-172-31-80-195 downloads]$ cd nagios-4.5.5
[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ ./configure --with-command-group=nagcmd
checking for a BSD-compatible install... /usr/bin/install -c
checking build system type... x86_64-pc-linux-gnu
checking host system type... x86_64-pc-linux-gnu
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether the compiler supports GNU C... yes
checking whether gcc accepts -g... yes
checking for gcc option to enable C11 features... none needed
checking whether make sets $(MAKE)... yes
checking whether ln -s works... yes
checking for strip... /usr/bin/strip
checking for sys/wait.h that is POSIX.1 compatible... yes
checking for stdio.h... yes
checking for stdlib.h... yes
checking for string.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for strings.h... yes
checking for sys/stat.h... yes
checking for sys/types.h... yes
checking for unistd.h... yes
checking for arpa/inet.h... yes
checking for ctype.h... yes
checking for dirent.h... yes
checking for errno.h... yes
checking for fcntl.h... yes
checking for getopt.h... yes
checking for grp.h... yes
checking for libgen.h... yes
checking for limits.h... yes
checking for math.h... yes
checking for netdb.h... yes
checking for netinet/in.h... yes
checking for pwd.h... yes
checking for regex.h... yes
checking for signal.h... yes
checking for socket.h... no
checking for stdarg.h... yes
checking for string.h... (cached) yes
checking for strings.h... (cached) yes
```

```
[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ sudo yum install openssl-devel
Last metadata expiration check: 0:10:42 ago on Fri Sep 27 11:19:57 2024.
Dependencies resolved.
=====
Package                        Architecture      Version           Repository        Size
=====
Installing:
openssl-devel                  x86_64            1:3.0.8-1.amzn2023.0.14  amazonlinux      3.0 M
=====
Transaction Summary
=====
Install 1 Package

Total download size: 3.0 M
Installed size: 4.7 M
Is this ok [y/N]: y
Downloading Packages:
openssl-devel-3.0.8-1.amzn2023.0.14.x86_64.rpm                                14 MB/s | 3.0 MB    00:00
-----
Total                                                                    11 MB/s | 3.0 MB    00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Installing     : openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64 1/1
  Running scriptlet: openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64 1/1
  Verifying      : openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64 1/1

Installed:
  openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64

Complete!
```

11. Run the configuration script with the same group name you previously created.

```
./configure --with-command-group=nagcmd
```

12. Compile the source code.

```
make all
```

```

Command Prompt
*** Configuration summary for nagios 4.5.5 2024-09-17 ***:

General Options:
-----
Nagios executable: nagios
Nagios user/group: nagios,nagios
Command user/group: nagios,nagcmd
Event Broker: yes
Install ${prefix}: /usr/local/nagios
Install ${includedir}: /usr/local/nagios/include/nagios
Lock file: /run/nagios.lock
Check result directory: /usr/local/nagios/var/spool/checkresults
Init directory: /lib/systemd/system
Apache conf.d directory: /etc/httpd/conf.d
Mail program: /bin/mail
Host OS: linux-gnu
IOBroker Method: epoll

Web Interface Options:
-----
HTML URL: http://localhost/nagios/
CGI URL: http://localhost/nagios/cgi-bin/
Traceroute (used by WAP): /usr/bin/traceroute

Review the options above for accuracy. If they look okay,
type 'make all' to compile the main program and CGIs.

[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ make all
cd ./base && make
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/base'
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nagios.o ./nagios.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nebmodes.o nebmodes.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o ../common/shared.o ../common/shared.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o query-handler.o query-handler.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o workers.c
In function 'get_wproc_list',
    inlined from 'get_worker' at workers.c:277:12:
workers.c:253:17: warning: '%s' directive argument is null [-Wformat-overflow=]
   253 |         log_debug_info(DEBUGL_CHECKS, 1, "Found specialized worker(s) for '%s'", (slash && *slash != '/') ? slash : cmd_name);
       |         ^~~~~~
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o checks.o checks.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o config.o config.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o commands.o commands.c
gcc -Wall -I.. -I.. -I../lib -I../include -I../include -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o events.o events.c

```

13. Install binaries, init script and sample config files. Lastly, set permissions on the external command directory.

```
sudo make install
```

```
sudo make install-init
```

```
sudo make install-config
```

```
sudo make install-commandmode
```

```

Command Prompt

[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode
cd ./base && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/base'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/bin
/usr/bin/install -c -s -m 774 -o nagios -g nagios nagios /usr/local/nagios/bin
/usr/bin/install -c -s -m 774 -o nagios -g nagios nagiosstats /usr/local/nagios/bin
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.5.5/base'
cd ./cgi && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/cgi'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/cgi'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/sbin
for file in *.cgi; do \
    /usr/bin/install -c -s -m 775 -o nagios -g nagios $file /usr/local/nagios/sbin; \
done
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.5.5/cgi'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.5.5/cgi'
cd ./html && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/html'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/media
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/stylesheets
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/contexthelp
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/docs
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/docs/images
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/js
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/images
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/images/logos
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/includes
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/ssi
/usr/bin/install -c -m 664 -o nagios -g nagios ./robots.txt /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios ./jquery.html /usr/local/nagios/share
rm -f /usr/local/nagios/share/index.html
rm -f /usr/local/nagios/share/main.html
rm -f /usr/local/nagios/share/side.html
rm -f /usr/local/nagios/share/map.html
rm -f /usr/local/nagios/share/rss-*
rm -f /usr/local/nagios/share/graph-header.html
rm -f /usr/local/nagios/share/histogram.html
rm -f /usr/local/nagios/share/histogram-form.html
rm -f /usr/local/nagios/share/histogram-graph.html
rm -f /usr/local/nagios/share/histogram-links.html

```

#### 14. Configure the web interface.

sudo make install-webconf

```

Command Prompt

[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.conf
if [ 0 -eq 1 ]; then \
    ln -s /etc/httpd/conf.d/nagios.conf /etc/apache2/sites-enabled/nagios.conf; \
fi

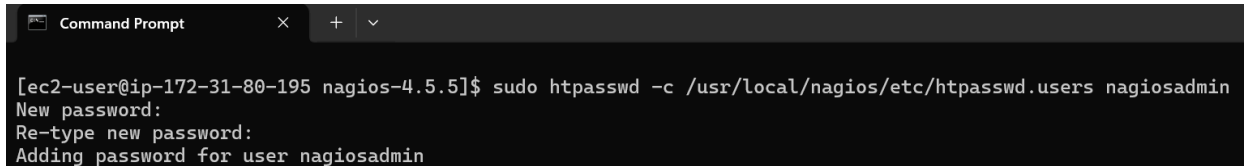
*** Nagios/Apache conf file installed ***

```



15. Create a nagiosadmin account for nagios login along with password. You'll have to specify the password twice. (adityaraorane)

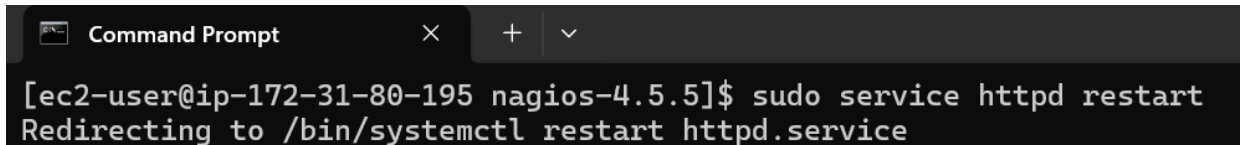
```
sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
```



```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
```

16. Restart Apache

```
sudo service httpd restart
```



```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-4.5.5]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
```

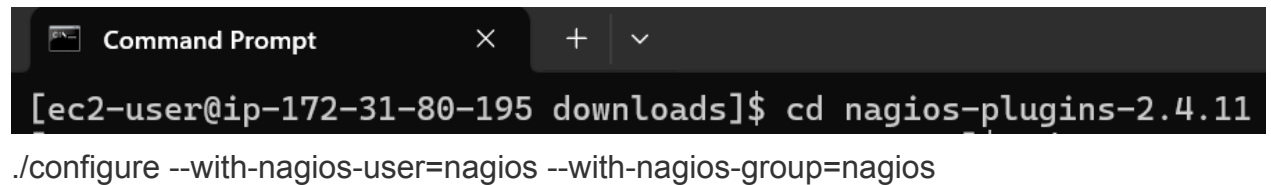
17. Go back to the downloads folder and unzip the plugins zip file.

```
cd ~/downloads
tar zxvf nagios-plugins-2.0.3.tar.gz
```

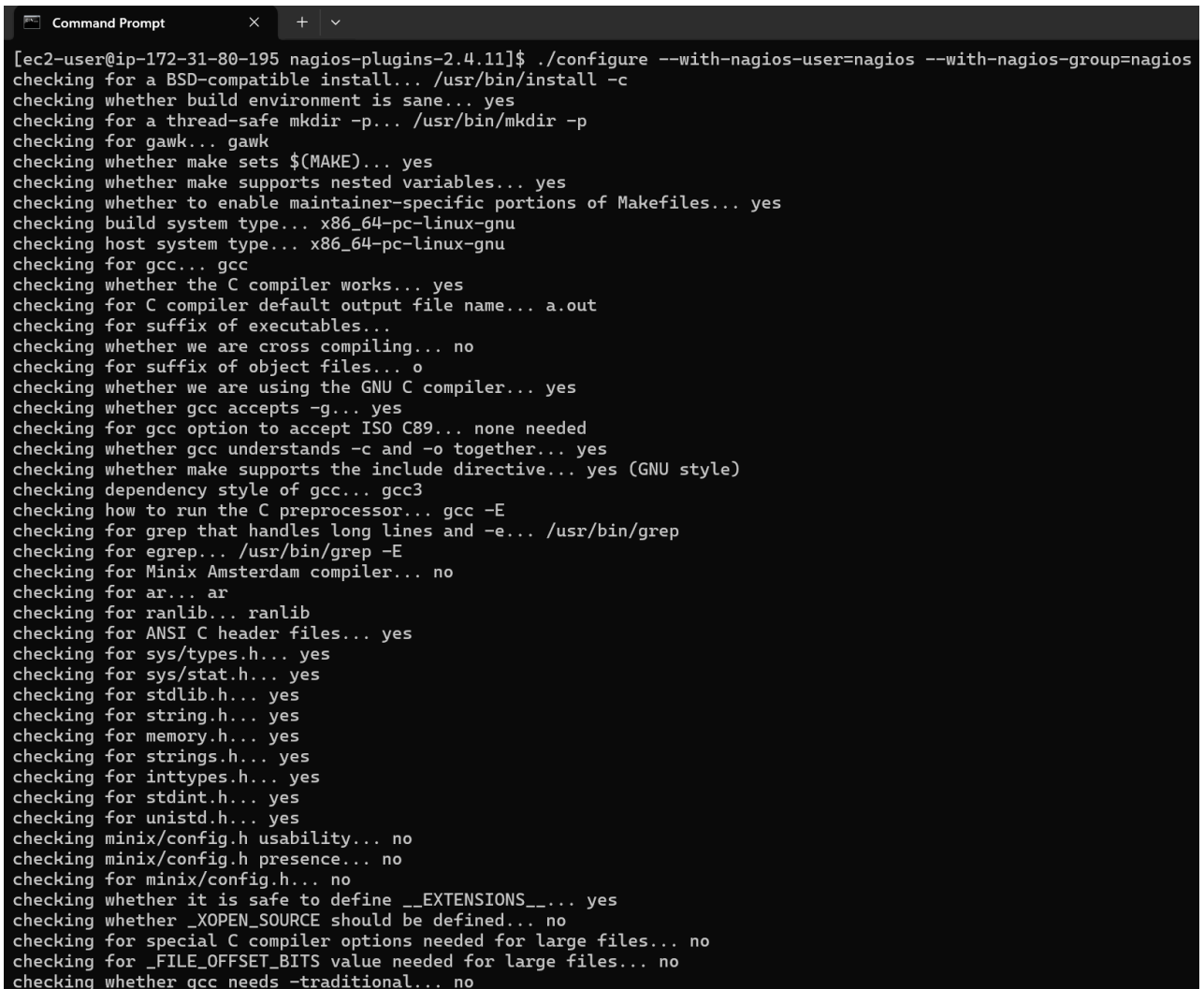
```
Command Prompt
[ec2-user@ip-172-31-80-195 downloads]$ ls
6kqcx nagios-4.5.5 nagios-plugins-2.4.11.tar.gz
[ec2-user@ip-172-31-80-195 downloads]$ tar zxvf nagios-plugins-2.4.11.tar.gz
nagios-plugins-2.4.11/
nagios-plugins-2.4.11/build-aux/
nagios-plugins-2.4.11/build-aux/compile
nagios-plugins-2.4.11/build-aux/config.guess
nagios-plugins-2.4.11/build-aux/config.rpath
nagios-plugins-2.4.11/build-aux/config.sub
nagios-plugins-2.4.11/build-aux/install-sh
nagios-plugins-2.4.11/build-aux/ltmain.sh
nagios-plugins-2.4.11/build-aux/missing
nagios-plugins-2.4.11/build-aux/mkinstalldirs
nagios-plugins-2.4.11/build-aux/depcomp
nagios-plugins-2.4.11/build-aux/snippet/
nagios-plugins-2.4.11/build-aux/snippet/_Noreturn.h
nagios-plugins-2.4.11/build-aux/snippet/arg-nonnull.h
nagios-plugins-2.4.11/build-aux/snippet/c++defs.h
nagios-plugins-2.4.11/build-aux/snippet/warn-on-use.h
nagios-plugins-2.4.11/build-aux/test-driver
nagios-plugins-2.4.11/config_test/
nagios-plugins-2.4.11/config_test/Makefile
nagios-plugins-2.4.11/config_test/run_tests
nagios-plugins-2.4.11/config_test/child_test.c
nagios-plugins-2.4.11/gl/
nagios-plugins-2.4.11/gl/m4/
nagios-plugins-2.4.11/gl/m4/00gnulib.m4
nagios-plugins-2.4.11/gl/m4/absolute-header.m4
nagios-plugins-2.4.11/gl/m4/alloca.m4
nagios-plugins-2.4.11/gl/m4/arpa_inet_h.m4
nagios-plugins-2.4.11/gl/m4/base64.m4
nagios-plugins-2.4.11/gl/m4/btowc.m4
nagios-plugins-2.4.11/gl/m4/codeset.m4
nagios-plugins-2.4.11/gl/m4/configmake.m4
nagios-plugins-2.4.11/gl/m4/dirname.m4
nagios-plugins-2.4.11/gl/m4/double-slash-root.m4
nagios-plugins-2.4.11/gl/m4/eealloc.m4
nagios-plugins-2.4.11/gl/m4/envIRON.m4
nagios-plugins-2.4.11/gl/m4/errno_h.m4
nagios-plugins-2.4.11/gl/m4/error.m4
nagios-plugins-2.4.11/gl/m4/exponentd.m4
nagios-plugins-2.4.11/gl/m4/extensions.m4
nagios-plugins-2.4.11/gl/m4/extern-inline.m4
nagios-plugins-2.4.11/gl/m4/fcntl-o.m4
nagios-plugins-2.4.11/gl/m4/float_h.m4
nagios-plugins-2.4.11/gl/m4/floorf.m4
```

## 18. Compile and install plugins

cd nagios-plugins-2.0.3



```
Command Prompt
[ec2-user@ip-172-31-80-195 downloads]$ cd nagios-plugins-2.4.11
./configure --with-nagios-user=nagios --with-nagios-group=nagios
```



```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
checking for a thread-safe mkdir -p... /usr/bin/mkdir -p
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking whether make supports nested variables... yes
checking whether to enable maintainer-specific portions of Makefiles... yes
checking build system type... x86_64-pc-linux-gnu
checking host system type... x86_64-pc-linux-gnu
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking whether gcc understands -c and -o together... yes
checking whether make supports the include directive... yes (GNU style)
checking dependency style of gcc... gcc3
checking how to run the C preprocessor... gcc -E
checking for grep that handles long lines and -e... /usr/bin/grep
checking for egrep... /usr/bin/grep -E
checking for Minix Amsterdam compiler... no
checking for ar... ar
checking for ranlib... ranlib
checking for ANSI C header files... yes
checking for sys/types.h... yes
checking for sys/stat.h... yes
checking for stdlib.h... yes
checking for string.h... yes
checking for memory.h... yes
checking for strings.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for unistd.h... yes
checking minix/config.h usability... no
checking minix/config.h presence... no
checking for minix/config.h... no
checking whether it is safe to define __EXTENSIONS__... yes
checking whether _XOPEN_SOURCE should be defined... no
checking for special C compiler options needed for large files... no
checking for _FILE_OFFSET_BITS value needed for large files... no
checking whether gcc needs -traditional... no
```

make

```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
checking for a thread-safe mkdir -p... /usr/bin/mkdir -p
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking whether make supports nested variables... yes
checking whether to enable maintainer-specific portions of Makefiles... yes
checking build system type... x86_64-pc-linux-gnu
checking host system type... x86_64-pc-linux-gnu
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking whether gcc understands -c and -o together... yes
checking whether make supports the include directive... yes (GNU style)
checking dependency style of gcc... gcc3
checking how to run the C preprocessor... gcc -E
checking for grep that handles long lines and -e... /usr/bin/grep
checking for egrep... /usr/bin/grep -E
checking for Minix Amsterdam compiler... no
checking for ar... ar
checking for ranlib... ranlib
checking for ANSI C header files... yes
checking for sys/types.h... yes
checking for sys/stat.h... yes
checking for stdlib.h... yes
checking for string.h... yes
checking for memory.h... yes
checking for strings.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for unistd.h... yes
checking minix/config.h usability... no
checking minix/config.h presence... no
checking for minix/config.h... no
checking whether it is safe to define __EXTENSIONS__... yes
checking whether _XOPEN_SOURCE should be defined... no
checking for special C compiler options needed for large files... no
checking for _FILE_OFFSET_BITS value needed for large files... no
checking whether gcc needs -traditional... no
```

sudo make install

```

[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ sudo make inst
all
Making install in gl
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make install-recursive
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make[3]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make[4]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
if test yes = no; then \
  case 'linux-gnu' in \
    darwin[56]*) \
      need_charset_alias=true ;; \
    darwin* | cygwin* | mingw* | pw32* | cegcc*) \
      need_charset_alias=false ;; \
    *) \
      need_charset_alias=true ;; \
  esac ; \
else \
  need_charset_alias=false ; \
fi ; \
if $need_charset_alias; then \
  /bin/sh ../build-aux/mkinstalldirs /usr/local/nagios/lib ; \
fi ; \
if test -f /usr/local/nagios/lib/charset.alias; then \
  sed -f ref-add.sed /usr/local/nagios/lib/charset.alias > /usr/local/nagios/lib/charset.tmp ; \
  /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
  rm -f /usr/local/nagios/lib/charset.tmp ; \
else \
  if $need_charset_alias; then \
    sed -f ref-add.sed charset.alias > /usr/local/nagios/lib/charset.tmp ; \
    /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
    rm -f /usr/local/nagios/lib/charset.tmp ; \
  fi ; \
fi
make[4]: Nothing to be done for 'install-data-am'.
make[4]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make[3]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
Making install in tap
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/tap'
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/tap'
make[2]: Nothing to be done for 'install-exec-am'.
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/tap'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/tap'
Making install in lib

```

## 19. Start Nagios

Add Nagios to the list of system services

sudo chkconfig --add nagios

sudo chkconfig nagios on

```

[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ sudo chkconfig --add nagios
sudo chkconfig nagios on
error reading information on service nagios: No such file or directory
Note: Forwarding request to 'systemctl enable nagios.service'.
Created symlink /etc/systemd/system/multi-user.target.wants/nagios.service → /usr/lib/systemd/system/nagios.service.

```

Verify the sample configuration files

sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.5.5
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2024-09-17
License: GPL

Website: https://www.nagios.org
Reading configuration data...
  Read main config file okay...
  Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
  Checked 8 services.
  Checked 1 hosts.
  Checked 1 host groups.
  Checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 24 commands.
  Checked 5 time periods.
  Checked 0 host escalations.
  Checked 0 service escalations.
Checking for circular paths...
  Checked 1 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
  Checked 5 timeperiods
Checking global event handlers...
Checking obsessive compulsive processor commands...
Checking misc settings...

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
```

sudo service nagios start

```
Command Prompt
[ec2-user@ip-172-31-80-195 nagios-plugins-2.4.11]$ cd
[ec2-user@ip-172-31-80-195 ~]$ sudo service nagios start
Redirecting to /bin/systemctl start nagios.service
```

## 20. Check the status of Nagios

sudo systemctl status nagios

```

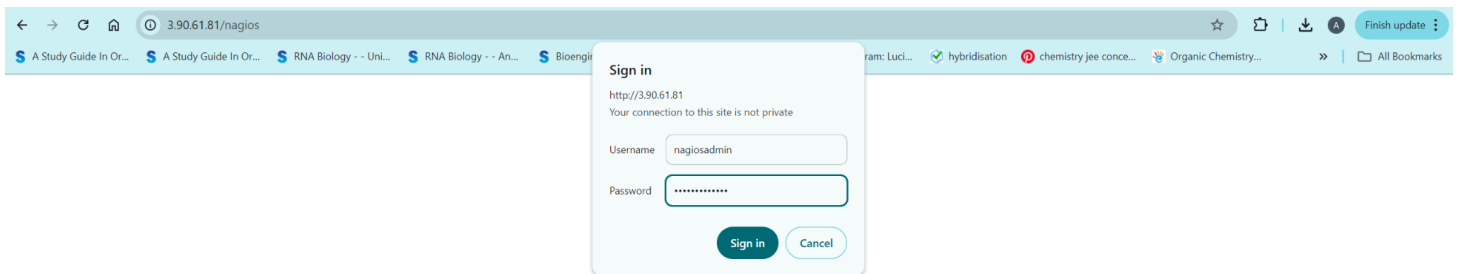
Command Prompt
[ec2-user@ip-172-31-80-195 ~]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.5.5
   Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled)
   Active: active (running) since Fri 2024-09-27 11:43:06 UTC; 1min 1s ago
     Docs: https://www.nagios.org/documentation
   Process: 65083 ExecStartPre=/usr/local/nagios/bin/nagios -v >
   Process: 65084 ExecStart=/usr/local/nagios/bin/nagios -d /usr/ >
 Main PID: 65085 (nagios)
    Tasks: 6 (limit: 1112)
   Memory: 5.7M
      CPU: 86ms
   CGroup: /system.slice/nagios.service
           └─65085 /usr/local/nagios/bin/nagios -d /usr/local/ >
             └─65086 /usr/local/nagios/bin/nagios --worker /usr/ >
               └─65087 /usr/local/nagios/bin/nagios --worker /usr/ >
                 └─65088 /usr/local/nagios/bin/nagios --worker /usr/ >
                   └─65089 /usr/local/nagios/bin/nagios --worker /usr/ >
                     └─65090 /usr/local/nagios/bin/nagios -d /usr/local/ >

Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: qh: >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: qh: >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: qh: >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: qh: >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: wpr >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: wpr >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: wpr >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: wpr >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: wpr >
Sep 27 11:43:06 ip-172-31-80-195.ec2.internal nagios[65085]: Suc >
lines 1-28/28 (END)

```

21. Go back to EC2 Console and copy the Public IP address of this instance. Open up your browser and look for **http://<your\_public\_ip\_address>/nagios** .

<http://3.90.61.81/nagios>



Enter username as **nagiosadmin** and password as **adityaraorane** (which you set in Step 15).

24. After entering the correct credentials, you will see this page.

The screenshot shows the Nagios Core 4.5.5 web interface. The browser address bar indicates the URL is 3.90.61.81/nagios/. The interface is divided into a left sidebar and a main content area. The sidebar contains navigation links for General, Current Status, Reports, and System. The main content area displays the Nagios Core logo, version 4.5.5, and a status message 'Daemon running with PID 65085'. It also features sections for 'Get Started', 'Quick Links', 'Latest News', and 'Don't Miss...'. At the bottom, there is copyright information and logos for Nagios and SourceForge.

**Conclusion:** We have successfully installed and configured Nagios Core, Nagios Plugins, and NRPE on a Linux machine. This enables us to effectively manage system performance and proactively address potential issues.