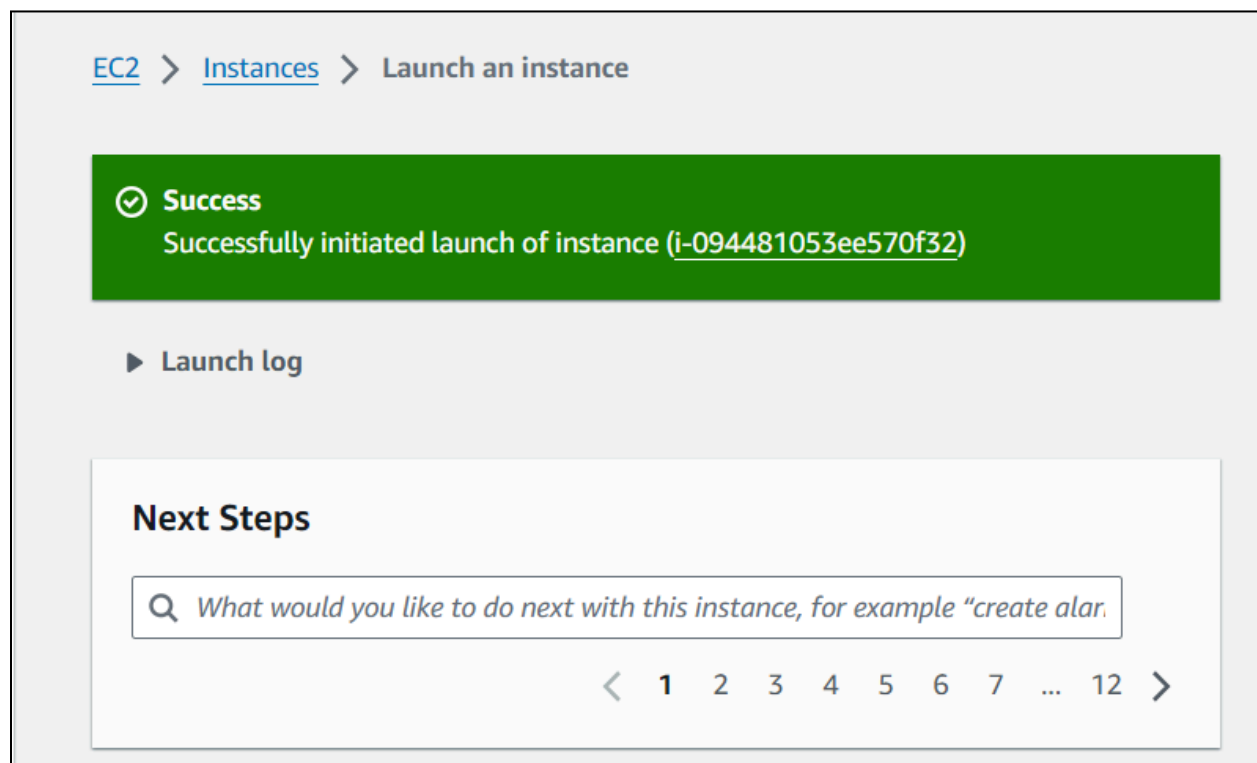
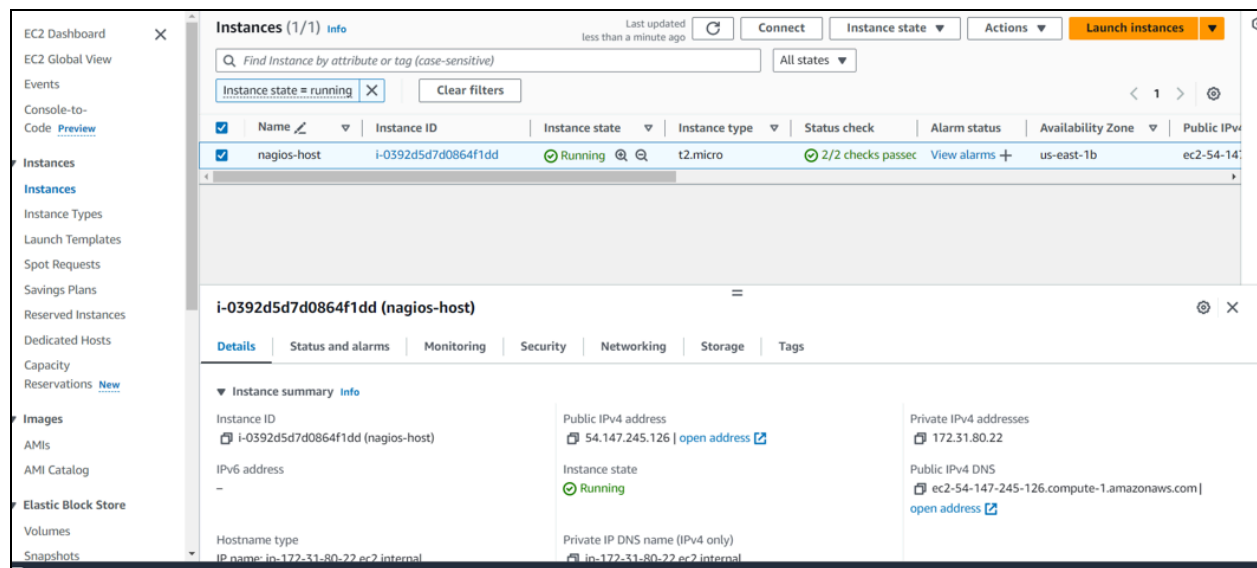


Experiment.9

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 Amazon Linux EC2 Instance in AWS and name it - nagios-host



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

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info						
Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info	
sgr-0dd3db4ec3e713a9f	HTTPS	TCP	443	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-096c285fa9ec0a889	All ICMP - IPv4	ICMP	All	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-03f2302a42808e10a	SSH	TCP	22	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-092a303d8441e3ce4	All ICMP - IPv6	IPv6 ICMP	All	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-0aad7f8e3c2bda6d1	HTTP	TCP	80	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-0feb657cefb8d08cc	All traffic	All	All	Custom	<input type="text" value="Q"/> <input type="text" value="0.0.0.0/0 X"/>	<input type="text" value=""/> <input type="button" value="Delete"/>

**All ports are open to all IPv4 addresses in your security group**

All ports are currently open to all IPv4 addresses, indicated by **All** and **0.0.0.0/0** in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 18.206.107.24/29. [Learn more](#).

Instance ID

i-094481053ee570f32 (nagios-host)

Connection Type

**Connect using EC2 Instance Connect**

Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.

**Connect using EC2 Instance Connect Endpoint**

Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

☒ Public IPv4 address

44.203.145.24

☐ IPv6 address

—

Username

Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.



Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Step.3 SSH into Your EC2 instance or simply use EC2 Instance Connect from the browser.



The screenshot shows a terminal window for an Amazon Linux 2023 instance. At the top, there is a blue banner with a keyboard shortcut tip: "Keyboard shortcut: To tab out of the terminal window and select the next button element, press the left and right Shift keys together." Below the banner, the AWS logo is displayed on the left, and the text "Amazon Linux 2023" is on the right. Under the logo, the URL "https://aws.amazon.com/linux/amazon-linux-2023" is shown. At the bottom of the terminal, it says "Last login: Tue Oct 1 08:38:37 2024 from 18.206.107.27" and the prompt "[ec2-user@ip-172-31-87-21 ~]\$".

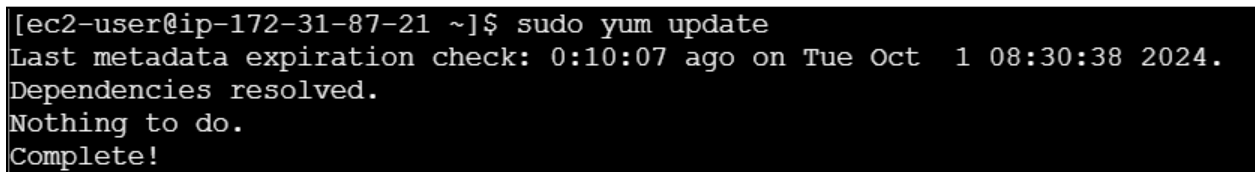
Step.4 Update the package indices and install the following packages using yum

sudo yum update

sudo yum install httpd php

sudo yum install gcc glibc glibc-common

sudo yum install gd gd-devel



The screenshot shows a terminal window with the command "sudo yum update" entered. The output of the command is displayed: "Last metadata expiration check: 0:10:07 ago on Tue Oct 1 08:30:38 2024. Dependencies resolved. Nothing to do. Complete!".

```
[ec2-user@ip-172-31-87-21 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:10:31 ago on Tue Oct 1 08:30:38 2024.
Dependencies resolved.
```

Package	Architecture	Version	Repository
Installing:			
httpd	x86_64	2.4.62-1.amzn2023	amazonlinux
php8.3	x86_64	8.3.10-1.amzn2023.0.1	amazonlinux
Installing dependencies:			
apr	x86_64	1.7.2-2.amzn2023.0.2	amazonlinux
apr-util	x86_64	1.6.3-1.amzn2023.0.1	amazonlinux
generic-logos-httpd	noarch	18.0.0-12.amzn2023.0.3	amazonlinux
httpd-core	x86_64	2.4.62-1.amzn2023	amazonlinux
httpd-filesystem	noarch	2.4.62-1.amzn2023	amazonlinux

i-094481053ee570f32 (naqios-host)

PublicIPs: 44.203.145.24 PrivateIPs: 172.31.87.21

[illegible]

i-094481053ee570f32 (nagios-host)

PublicIPs: 44.203.145.24 PrivateIPs: 172.31.87.21

```
Installed:
apr-1.7.2-2.amzn2023.0.2.x86_64          apr-util-1.6.3-1.amzn2023.0.1.x86_64          apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch  httpd-2.4.62-1.amzn2023.x86_64          httpd-core-2.4.62-1.amzn2023.x86_64
httpd-filesystem-2.4.62-1.amzn2023.noarch          httpd-tools-2.4.62-1.amzn2023.x86_64          libbrotli-1.0.9-4.amzn2023.0.2.x86_64
libsodium-1.0.19-4.amzn2023.x86_64              libxslt-1.1.34-5.amzn2023.0.2.x86_64          mailcap-2.1.49-3.amzn2023.0.3.noarch
mod_http2-2.0.27-1.amzn2023.0.3.x86_64          mod_lua-2.4.62-1.amzn2023.x86_64          nginx-filesystem-1:1.24.0-1.amzn2023.0.4.noarch
php8.3-8.3.10-1.amzn2023.0.1.x86_64            php8.3-cli-8.3.10-1.amzn2023.0.1.x86_64      php8.3-common-8.3.10-1.amzn2023.0.1.x86_64
php8.3-fpm-8.3.10-1.amzn2023.0.1.x86_64        php8.3-mbstring-8.3.10-1.amzn2023.0.1.x86_64  php8.3-opcache-8.3.10-1.amzn2023.0.1.x86_64
php8.3-pdo-8.3.10-1.amzn2023.0.1.x86_64        php8.3-process-8.3.10-1.amzn2023.0.1.x86_64  php8.3-sodium-8.3.10-1.amzn2023.0.1.x86_64
php8.3-xml-8.3.10-1.amzn2023.0.1.x86_64

Complete!
[ec2-user@ip-172-31-87-21 ~]$
```

```
Verifying      : libxcb-devel-1.13.1-7.amzn2023.0.2.x86_64
Verifying      : libxml2-devel-2.10.4-1.amzn2023.0.6.x86_64
Verifying      : pcre2-devel-10.40-1.amzn2023.0.3.x86_64
Verifying      : pcre2-utf16-10.40-1.amzn2023.0.3.x86_64
Verifying      : pcre2-utf32-10.40-1.amzn2023.0.3.x86_64
Verifying      : pixman-0.40.0-3.amzn2023.0.3.x86_64
Verifying      : sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64
Verifying      : xml-common-0.6.3-56.amzn2023.0.2.noarch
Verifying      : xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch
Verifying      : xz-devel-5.2.5-9.amzn2023.0.2.x86_64
Verifying      : zlib-devel-1.2.11-33.amzn2023.0.5.x86_64

Installed:
brotli-1.0.9-4.amzn2023.0.2.x86_64          brotli-devel-1.0.9-4.amzn2023.0.2.x86_64
bzip2-devel-1.0.8-6.amzn2023.0.2.x86_64      cairo-1.17.6-2.amzn2023.0.1.x86_64
```

```
libicu-devel-67.1-7.amzn2023.0.3.x86_64          libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64
libjpeg-turbo-devel-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          libpng-devel-2:1.6.37-10.amzn2023.0.6.x86_64
libselenium-devel-3.4-5.amzn2023.0.2.x86_64      libsepol-devel-3.4-3.amzn2023.0.3.x86_64
libtiff-4.4.0-4.amzn2023.0.18.x86_64            libtiff-devel-4.4.0-4.amzn2023.0.18.x86_64
libwebp-1.2.4-1.amzn2023.0.6.x86_64             libwebp-devel-1.2.4-1.amzn2023.0.6.x86_64
libxcb-1.13.1-7.amzn2023.0.2.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-devel-10.40-1.amzn2023.0.3.x86_64
pcre2-utf16-10.40-1.amzn2023.0.3.x86_64         pcre2-utf32-10.40-1.amzn2023.0.3.x86_64
pixman-0.40.0-3.amzn2023.0.3.x86_64             sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch          xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch
xz-devel-5.2.5-9.amzn2023.0.2.x86_64           zlib-devel-1.2.11-33.amzn2023.0.5.x86_64

Complete!
[ec2-user@ip-172-31-87-21 ~]$
```

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

```
sudo adduser -m nagios
```

```
sudo passwd nagios
```

```
[ec2-user@ip-172-31-87-21 ~]$ sudo useradd nagios
sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-87-21 ~]$
```

Step.6 Create a new user group

```
sudo groupadd nagcmd
```

```
[ec2-user@ip-172-31-87-21 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-87-21 ~]$ sudo usermod -aG nagcmd nagios
sudo usermod -aG nagcmd apache
[ec2-user@ip-172-31-87-21 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-87-21 downloads]$ wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
wget https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
--2024-10-01 08:50:36-- https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
Resolving assets.nagios.com (assets.nagios.com)... 45.79.49.120, 2600:3c00::f03c:92ff:fe7:45ce
Connecting to assets.nagios.com (assets.nagios.com)|45.79.49.120|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11333414 (11M) [application/x-gzip]
Saving to: 'nagios-4.4.6.tar.gz'

nagios-4.4.6.tar.gz      0%[                               ] 0 --.-KB/s
nagios-4.4.6.tar.gz      6%[====>                        ] 751.62K 3.56MB/s
nagios-4.4.6.tar.gz     31%[=====>                     ] 3.45M 8.18MB/s
nagios-4.4.6.tar.gz     56%[=====>                     ] 6.09M 9.73MB/s
nagios-4.4.6.tar.gz     79%[=====>                     ] 8.63M 10.4MB/s
nagios-4.4.6.tar.gz    100%[=====>                     ] 10.81M 10.9MB/s

2024-10-01 08:50:37 (10.9 MB/s) - 'nagios-4.4.6.tar.gz' saved [11333414/11333414]

--2024-10-01 08:50:37-- https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
```

Step.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
```

```
2024-10-01 08:50:37 (10.9 MB/s) - 'nagios-4.4.6.tar.gz' saved [11333414/11333414]

--2024-10-01 08:50:37-- https://nagios-plugins.org/download/nagios-plugins-2.3.3.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|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2782610 (2.7M) [application/x-gzip]
Saving to: 'nagios-plugins-2.3.3.tar.gz'

nagios-plugins-2.3.3.tar.gz      0%[
nagios-plugins-2.3.3.tar.gz      12%[=====>
nagios-plugins-2.3.3.tar.gz      100%[=====]

2024-10-01 08:50:38 (7.06 MB/s) - 'nagios-plugins-2.3.3.tar.gz' saved [2782610/2782610]

[ec2-user@ip-172-31-87-21 downloads]$
```

Step.8 Use wget to download the source zip files.

wget <http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz>

```
2024-10-01 08:50:38 (7.06 MB/s) - 'nagios-plugins-2.3.3.tar.gz' saved [2782610/2782610]

[ec2-user@ip-172-31-87-21 downloads]$ tar zxvf nagios-4.4.6.tar.gz
cd nagios-4.4.6
nagios-4.4.6/
nagios-4.4.6/.gitignore
nagios-4.4.6/.travis.yml
nagios-4.4.6/CONTRIBUTING.md
nagios-4.4.6/Changelog
nagios-4.4.6/INSTALLING
nagios-4.4.6/LLEGAL
nagios-4.4.6/LICENSE
nagios-4.4.6/Makefile.in
nagios-4.4.6/README.md
nagios-4.4.6/THANKS
nagios-4.4.6/UPGRADING
nagios-4.4.6/aclocal.m4
nagios-4.4.6/autoconf-macros/
nagios-4.4.6/autoconf-macros/.gitignore
nagios-4.4.6/autoconf-macros/CHANGELOG.md
nagios-4.4.6/autoconf-macros/LICENSE
nagios-4.4.6/autoconf-macros/LICENSE.md
nagios-4.4.6/autoconf-macros/README.md
nagios-4.4.6/autoconf-macros/add_group_user
nagios-4.4.6/autoconf-macros/ax_nagios_get_distrib
```

```
nagios-4.4.6/tap/tests/todo/Makefile.in
nagios-4.4.6/tap/tests/todo/test.c
nagios-4.4.6/tap/tests/todo/test.pl
nagios-4.4.6/tap/tests/todo/test.t
nagios-4.4.6/test/
nagios-4.4.6/test/test-downtime.pl
nagios-4.4.6/update-version
nagios-4.4.6/worker/
nagios-4.4.6/worker/Makefile.in
nagios-4.4.6/worker/ping/
nagios-4.4.6/worker/ping/.gitignore
nagios-4.4.6/worker/ping/Makefile.in
nagios-4.4.6/worker/ping/worker-ping.c
nagios-4.4.6/xdata/
nagios-4.4.6/xdata/.gitignore
nagios-4.4.6/xdata/Makefile.in
nagios-4.4.6/xdata/xcddefault.c
nagios-4.4.6/xdata/xcddefault.h
nagios-4.4.6/xdata/xodtemplate.c
nagios-4.4.6/xdata/xodtemplate.h
nagios-4.4.6/xdata/xpddefault.c
nagios-4.4.6/xdata/xpddefault.h
nagios-4.4.6/xdata/xrddefault.c
nagios-4.4.6/xdata/xrddefault.h
nagios-4.4.6/xdata/xsddefault.c
nagios-4.4.6/xdata/xsddefault.h
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$
```

Step.9 Run the configuration script with the same group name you previously created.

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

```
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ ./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 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 make sets $(MAKE)... yes
checking whether ln -s works... yes
checking for strip... /usr/bin/strip
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 ANSI C header files... yes
checking whether time.h and sys/time.h may both be included... yes
checking for sys/wait.h that is POSIX.1 compatible... yes
checking for sys/types.h... yes
checking for sys/stat.h... yes
checking for stdlib.h... yes
checking for string.h... yes
```



```

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-172-31-87-21 nagios-4.4.6]$ █

```

Step 10 Compile the source code.

make all

```

[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ make all
cd ./base && make
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/base'
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nagios.o nagios.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nebmodes.o nebmodes.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o ../common/shared.o ../common/shared.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o query-handler.o query-handler.c
gcc -Wall -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.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o checks.o checks.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o config.o config.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o commands.o commands.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o events.o events.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o flapping.o flapping.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o logging.o logging.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o macros-base.o ../common/macros.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o netutils.o netutils.c
netutils.c: In function 'my_tcp_connect':
netutils.c:50:47: warning: '%d' directive output may be truncated writing between 1 and 11 bytes into a region of size 6 [-Wformat-truncation=]
 50 |         snprintf(port_str, sizeof(port_str), "%d", port);
      |         ^~~~~~

```

```
*** Support Notes ****
If you have questions about configuring or running Nagios,
please make sure that you:
    - Look at the sample config files
    - Read the documentation on the Nagios Library at:
      https://library.nagios.com
before you post a question to one of the mailing lists.
Also make sure to include pertinent information that could
help others help you. This might include:
    - What version of Nagios you are using
    - What version of the plugins you are using
    - Relevant snippets from your config files
    - Relevant error messages from the Nagios log file
For more information on obtaining support for Nagios, visit:
    https://support.nagios.com
*****
Enjoy.
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$
```

Step.11 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

```
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ 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-4.4.6/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-4.4.6/base'
cd ./cgi && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/cgi'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/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-4.4.6/cgi'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/cgi'
cd ./html && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/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 755 -d -o root -g root /lib/systemd/system
/usr/bin/install -c -m 755 -o root -g root startup/default-service /lib/systemd/system
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc/objects
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/nagios.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 660 -o nagios -g nagios sample-config/resource.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/template-object.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/contact.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/timeperiod.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/localtimeperiod.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/windowsperiod.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/printers.cfg /usr/local/nagios/etc
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/switches.cfg /usr/local/nagios/etc

*** Config files installed ***

Remember, these are *SAMPLE* config files. You'll need to read
the documentation for more information on how to actually define
services, hosts, etc. to fit your particular needs.

/usr/bin/install -c -m 775 -o nagios -g nagcmd -d /usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw

*** External command directory configured ***

[ec2-user@ip-172-31-87-21 nagios-4.4.6]$

```

Step.12 Edit the config file and change the email address.

`sudo nano /usr/local/nagios/etc/objects/contacts.cfg`

```

define contact {
    contact_name    nagiosadmin          ; Short name of user
    use             generic-contact      ; Inherit default values from generic-contact template (defined above)
    alias           Nagios Admin         ; Full name of user
    email           sawantshreya647@gmail.com ; <<***** CHANGE THIS TO YOUR EMAIL ADDRESS *****>>
}

```

Step.13 Configure the web interface.

`sudo make install-webconf`

```

[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ 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 ***

[ec2-user@ip-172-31-87-21 nagios-4.4.6]$

```

Step.14 Create a nagiosadmin account for nagios login along with password. You'll have to specify the password twice.

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

```
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$
```

Step.15 Restart Apache

`sudo service httpd restart`

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

`cd ~/downloads`

`tar xzvf nagios-plugins-2.0.3.tar.gz`

```
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ sudo systemctl restart httpd
[ec2-user@ip-172-31-87-21 nagios-4.4.6]$ cd ~/downloads
tar xzvf nagios-plugins-2.3.3.tar.gz
cd nagios-plugins-2.3.3
nagios-plugins-2.3.3/
nagios-plugins-2.3.3/perlmods/
nagios-plugins-2.3.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.3.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.3.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.in
nagios-plugins-2.3.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.am
nagios-plugins-2.3.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.3.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.3.3/perlmods/Class-Accessor-0.34.tar.gz
nagios-plugins-2.3.3/perlmods/Try-Tiny-0.18.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Implementation-0.07.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile
nagios-plugins-2.3.3/perlmods/Perl-OSType-1.003.tar.gz
nagios-plugins-2.3.3/perlmods/install_order
nagios-plugins-2.3.3/perlmods/Nagios-Plugin-0.36.tar.gz
nagios-plugins-2.3.3/perlmods/Math-Calc-Units-1.07.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Build-0.4007.tar.gz
nagios-plugins-2.3.3/ABOUT-NLS
nagios-plugins-2.3.3/configure.ac
nagios-plugins-2.3.3/Makefile.in
nagios-plugins-2.3.3/config.h.in
nagios-plugins-2.3.3/ChangeLog
nagios-plugins-2.3.3/AUTHORS
nagios-plugins-2.3.3/lib/
nagios-plugins-2.3.3/lib/parsedata.h
```

```

nagios-plugins-2.3.3/plugins-scripts/Makefile.in
nagios-plugins-2.3.3/plugins-scripts/check_ifoperstatus.pl
nagios-plugins-2.3.3/plugins-scripts/Makefile.am
nagios-plugins-2.3.3/plugins-scripts/check_breeze.pl
nagios-plugins-2.3.3/plugins-scripts/check_log.sh
nagios-plugins-2.3.3/plugins-scripts/check_ssl_validity.pl
nagios-plugins-2.3.3/plugins-scripts/check_flexlm.pl
nagios-plugins-2.3.3/plugins-scripts/check_rpc.pl
nagios-plugins-2.3.3/plugins-scripts/check_oracle.sh
nagios-plugins-2.3.3/plugins-scripts/utils.pm.in
nagios-plugins-2.3.3/plugins-scripts/check_disk_smb.pl
nagios-plugins-2.3.3/plugins-scripts/t/
nagios-plugins-2.3.3/plugins-scripts/t/check_ifoperstatus.t
nagios-plugins-2.3.3/plugins-scripts/t/check_rpc.t
nagios-plugins-2.3.3/plugins-scripts/t/check_file_age.t
nagios-plugins-2.3.3/plugins-scripts/t/check_disk_smb.t
nagios-plugins-2.3.3/plugins-scripts/t/check_ifstatus.t
nagios-plugins-2.3.3/plugins-scripts/t/utils.t
nagios-plugins-2.3.3/plugins-scripts/check_mailq.pl
nagios-plugins-2.3.3/plugins-scripts/check_wave.pl
nagios-plugins-2.3.3/plugins-scripts/check_ircd.pl
nagios-plugins-2.3.3/plugins-scripts/utils.sh.in
nagios-plugins-2.3.3/plugins-scripts/check_ifstatus.pl
nagios-plugins-2.3.3/plugins-scripts/check_sensors.sh
nagios-plugins-2.3.3/pkg/
nagios-plugins-2.3.3/pkg/fedora/
nagios-plugins-2.3.3/pkg/fedora/requires
nagios-plugins-2.3.3/pkg/solaris/
nagios-plugins-2.3.3/pkg/solaris/preinstall
nagios-plugins-2.3.3/pkg/solaris/solpkg
nagios-plugins-2.3.3/pkg/solaris/pkginfo.in
nagios-plugins-2.3.3/pkg/solaris/pkginfo
nagios-plugins-2.3.3/pkg/redhat/
nagios-plugins-2.3.3/pkg/redhat/requires
[ec2-user@ip-172-31-87-21 nagios-plugins-2.3.3]$ █

```

```

make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.3.3/plugins-root'
/usr/bin/install -c -o nagios -g nagios check_dhcp /usr/local/nagios/libexec/check_dhcp
chown root /usr/local/nagios/libexec/check_dhcp
chmod ug=rx,u+s /usr/local/nagios/libexec/check_dhcp
/usr/bin/install -c -o nagios -g nagios check_icmp /usr/local/nagios/libexec/check_icmp
chown root /usr/local/nagios/libexec/check_icmp
chmod ug=rx,u+s /usr/local/nagios/libexec/check_icmp
make[2]: Nothing to be done for 'install-data-am'.
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.3.3/plugins-root'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.3.3/plugins-root'
Making install in po
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.3.3/po'
/usr/bin/mkdir -p /usr/local/nagios/share
installing fr.gmo as /usr/local/nagios/share/locale/fr/LC_MESSAGES/nagios-plugins.mo
installing de.gmo as /usr/local/nagios/share/locale/de/LC_MESSAGES/nagios-plugins.mo
if test "nagios-plugins" = "gettext-tools"; then \
  /usr/bin/mkdir -p /usr/local/nagios/share/gettext/po; \
  for file in Makefile.in.in remove-potcdate.sin Makevars.template; do \
    /usr/bin/install -c -o nagios -g nagios -m 644 ./${file} \
      /usr/local/nagios/share/gettext/po/${file}; \
  done; \
  for file in Makevars; do \
    rm -f /usr/local/nagios/share/gettext/po/${file}; \
  done; \
else \
  : ; \
fi
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.3.3/po'
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.3.3'
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.3.3'
make[2]: Nothing to be done for 'install-exec-am'.
make[2]: Nothing to be done for 'install-data-am'.
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.3.3'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.3.3'
[ec2-user@ip-172-31-87-21 nagios-plugins-2.3.3]$ █

```

```
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
[ec2-user@ip-172-31-87-21 nagios-plugins-2.3.3]$
```

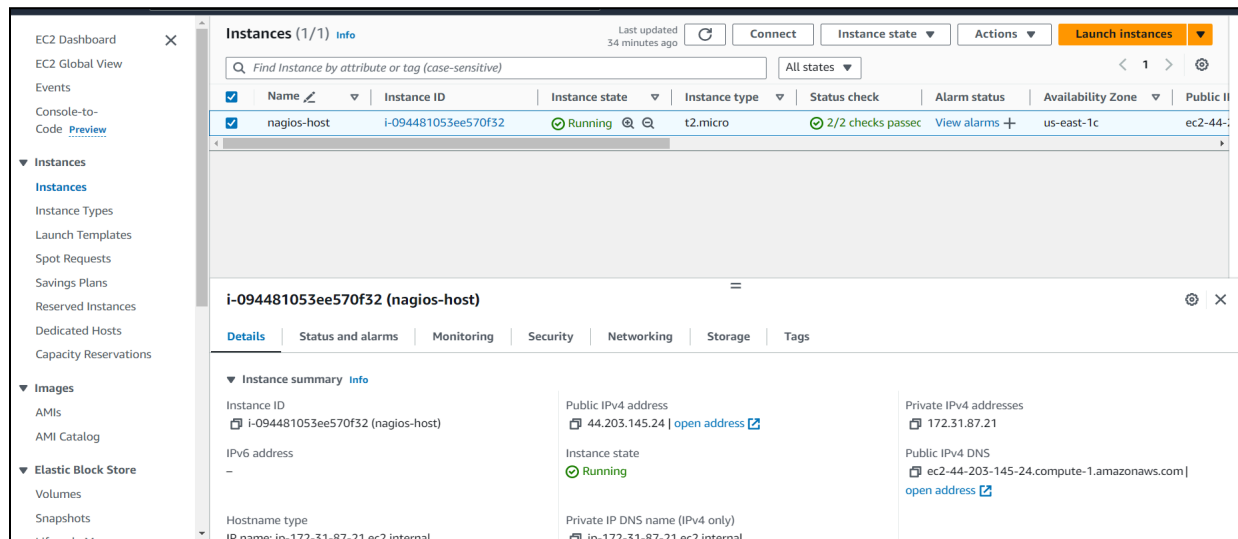
```
Checking misc settings...

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-87-21 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 Tue 2024-10-01 09:04:30 UTC; 41s ago
     Docs: https://www.nagios.org/documentation
   Process: 69042 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Process: 69043 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Main PID: 69044 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 2.1M
        CPU: 21ms
   CGroup: /system.slice/nagios.service
           └─69044 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             └─69045 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               └─69046 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                 └─69047 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─69048 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                     └─69049 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: qh: Socket '/usr/local/nagios/var/rw/nagios.qh' successfully initialized
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: qh: core query handler registered
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: qh: echo service query handler registered
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: qh: help for the query handler registered
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: wproc: Successfully registered manager as @wproc with query handler
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: wproc: Registry request: name=Core Worker 69047;pid=69047
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: wproc: Registry request: name=Core Worker 69048;pid=69048
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: wproc: Registry request: name=Core Worker 69046;pid=69046
Oct 01 09:04:30 ip-172-31-87-21.ec2.internal nagios[69044]: wproc: Registry request: name=Core Worker 69045;pid=69045
lines 1-27
```

Step.16 Go back to EC2 Console and copy the Public IP address of this instance



Step.17 Open up your browser and look for `http://<your_public_ip_address>/nagios`

