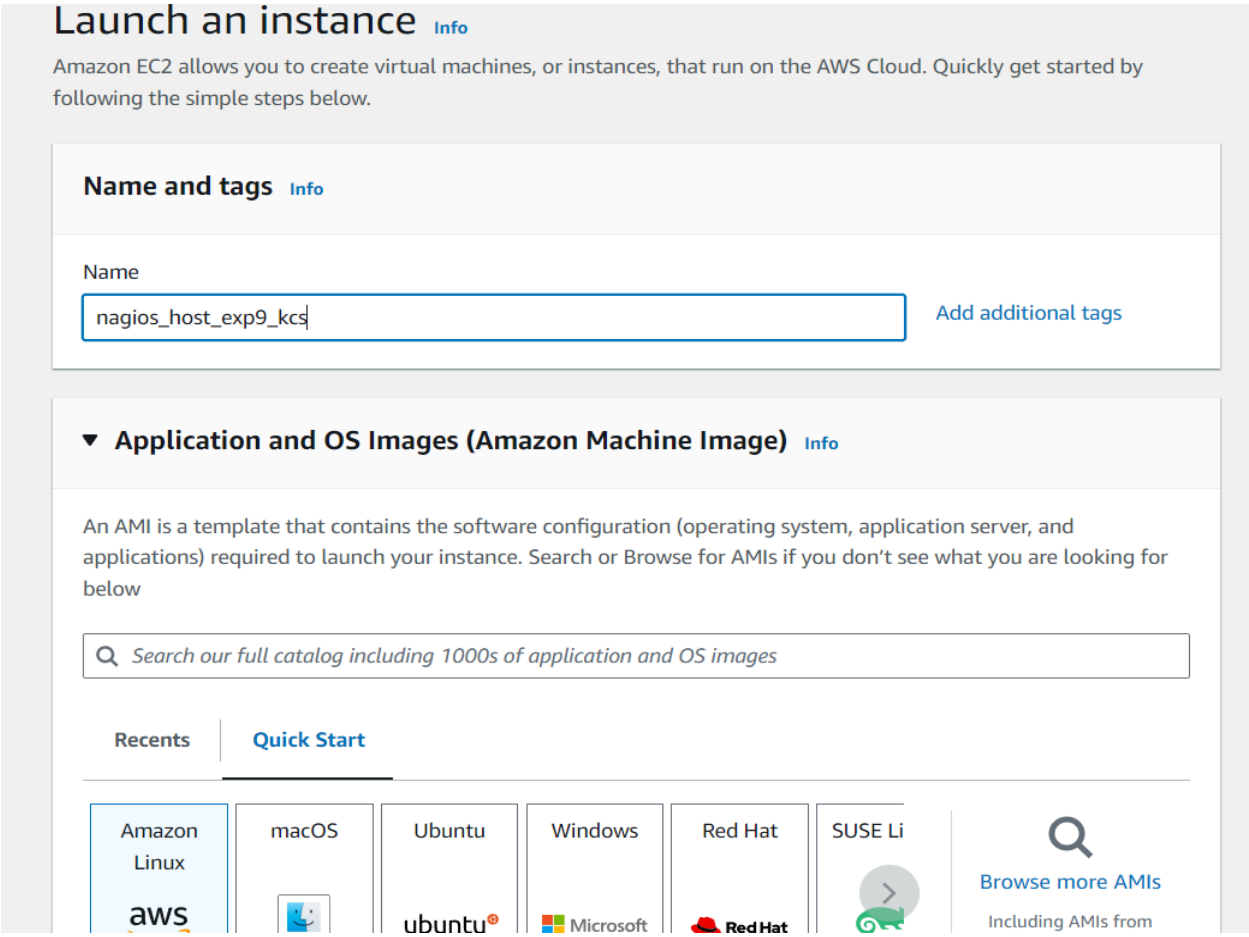
Name : Kshitij Hundre
Div: D15C
Roll No:18

Adv-Devops Exp 9

Steps to perform the experiment:

Step1) Create an EC2 instance.keep the settings as default.



Create a new key pair login and save the downloaded file in a folder of your local desktop.

Also create a new security group. In my case its name will **'launch-wizard-10'.**
Later we will edit rules of this security group.

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

nagios_exp9 | Create new key pair

Network settings Info

Edit

Network | Info

vpc-0a482134962ed0c59

Subnet | Info

No preference (Default subnet in any availability zone)

Auto-assign public IP | Info

Enable

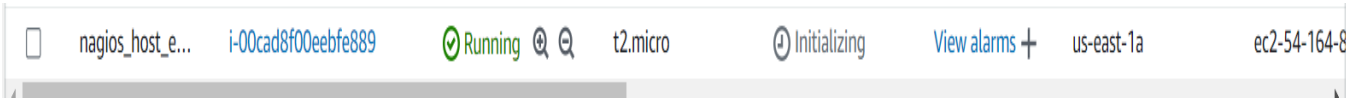
Additional charges apply when outside of free tier allowance

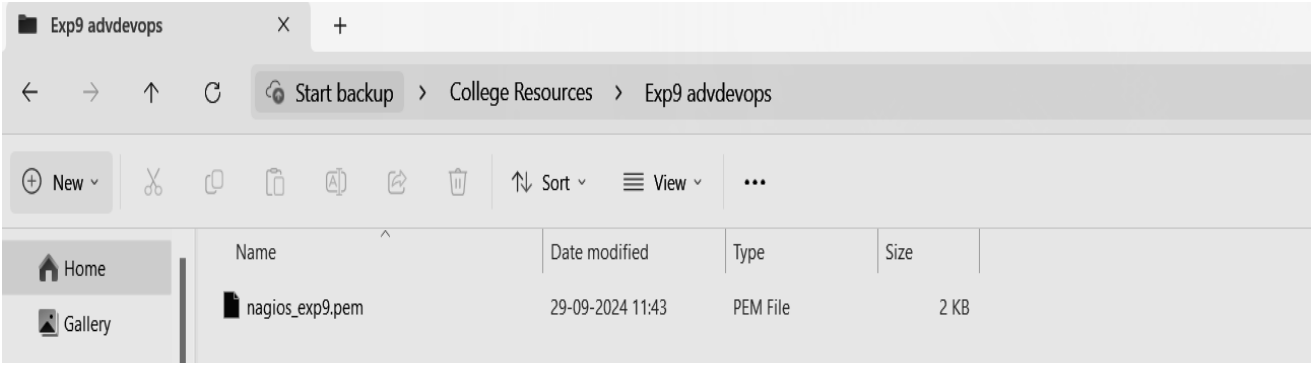
Firewall (security groups) | Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

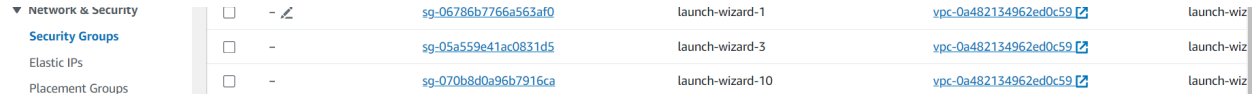
(•) Create security group ( ) Select existing security group

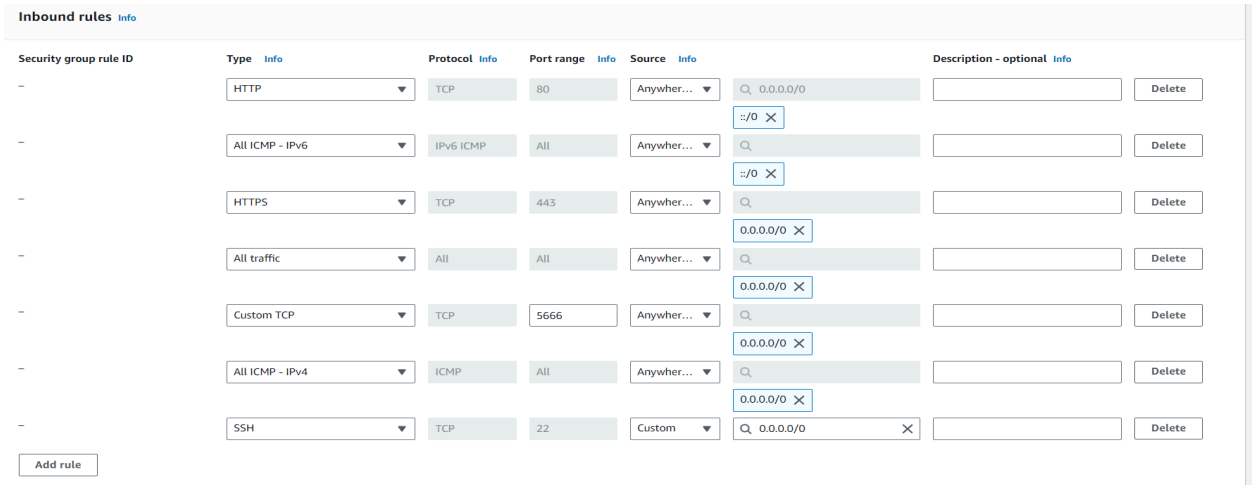
We'll create a new security group called '**launch-wizard-10**' with the following rules:

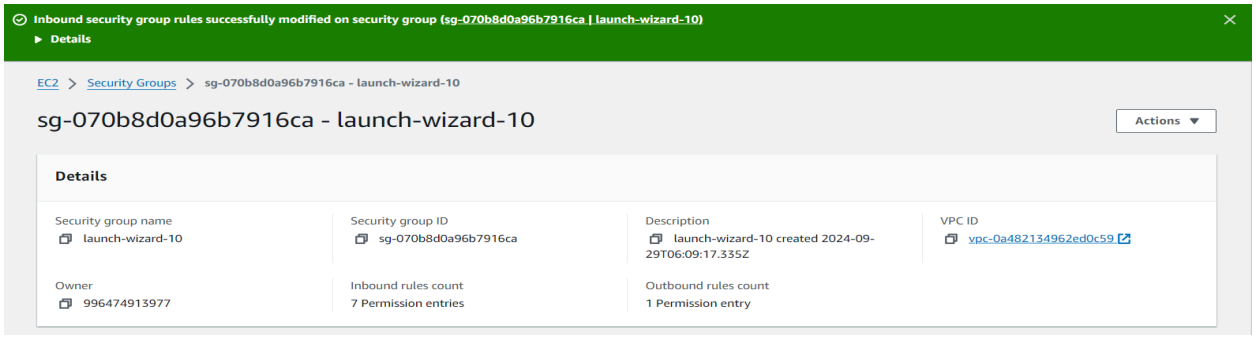




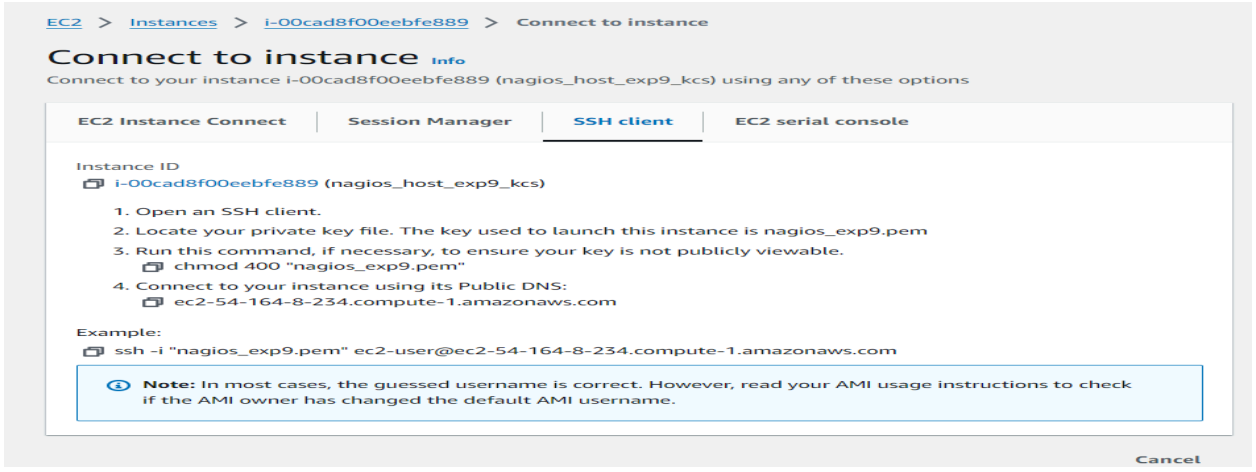
Now to edit security groups,select your security group and click on edit inbound rules.Add these security rules.







now navigate to instances, click on the instance which was created earlier and click on connect. now copy the ssh command and just replace the .pem file with its actual location in your computer.



ssh -i "nagios_exp9.pem" ec2-user@ec2-54-164-8-234.compute-1.amazonaws.com…paste this command in terminal..just replace your.pem file path.

```
PS C:\Users\91773\Desktop\College Resources\Exp9 advdevops> ssh -i "C:\Users\91773\Desktop\College Resources\Exp9 advdevops\nagios_exp9.pem" ec2-user@ec2-54-164-8-234.compute-1.amazonaws.com
The authenticity of host 'ec2-54-164-8-234.compute-1.amazonaws.com (54.164.8.234)' can't be established.
ED25519 key fingerprint is SHA256:scPnbaAMCV+FHEbUBCnwZdAjd6MQStqfeD/Rh06wDSY.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-164-8-234.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
```

sudo yum update

```
[ec2-user@ip-172-31-86-195 ~]$ sudo yum update
Last metadata expiration check: 0:32:14 ago on Sun Sep 29 06:16:51 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-86-195 ~]$
```

sudo yum install httpd php
Select y when asked i prompt.

```
[ec2-user@ip-172-31-86-195 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:33:12 ago on Sun Sep 29 06:16:51 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
 libsodium                       x86_64             1.0.19-4.amzn2023                    amazonlinux              176 k
 libxslt                         x86_64             1.1.34-5.amzn2023.0.2                amazonlinux              241 k
 mailcap                         noarch             2.1.49-3.amzn2023.0.3                amazonlinux               33 k
 nginx-filesystem                noarch             1:1.24.0-1.amzn2023.0.4              amazonlinux              9.8 k
 php8.3-cli                      x86_64             8.3.10-1.amzn2023.0.1                amazonlinux              3.7 M
 php8.3-common                   x86_64             8.3.10-1.amzn2023.0.1                amazonlinux              737 k
 php8.3-process                  x86_64             8.3.10-1.amzn2023.0.1                amazonlinux               45 k
 php8.3-xml                      x86_64             8.3.10-1.amzn2023.0.1                amazonlinux              154 k
Installing weak dependencies:
 apr-util-openssl                x86_64             1.6.3-1.amzn2023.0.1                 amazonlinux               17 k
```

sudo yum install gcc glibc glibc-common

```
[ec2-user@ip-172-31-86-195 ~]$ sudo yum install gcc glibc glibc-common
Last metadata expiration check: 0:35:10 ago on Sun Sep 29 06:16:51 2024.
Package glibc-2.34-52.amzn2023.0.11.x86_64 is already installed.
Package glibc-common-2.34-52.amzn2023.0.11.x86_64 is already installed.
Dependencies resolved.
================================================================================================================================
 Package                      Architecture       Version                                 Repository                 Size
================================================================================================================================
Installing:
 gcc                          x86_64             11.4.1-2.amzn2023.0.2                   amazonlinux                32 M
Installing dependencies:
 annobin-docs                 noarch             10.93-1.amzn2023.0.1                    amazonlinux                92 k
 annobin-plugin-gcc           x86_64             10.93-1.amzn2023.0.1                    amazonlinux               887 k
 cpp                          x86_64             11.4.1-2.amzn2023.0.2                   amazonlinux                10 M
 gc                           x86_64             8.0.4-5.amzn2023.0.2                    amazonlinux               105 k
 glibc-devel                  x86_64             2.34-52.amzn2023.0.11                   amazonlinux                27 k
 glibc-headers-x86            noarch             2.34-52.amzn2023.0.11                   amazonlinux               427 k
 guile22                      x86_64             2.2.7-2.amzn2023.0.3                    amazonlinux               6.4 M
 kernel-headers               x86_64             6.1.109-118.189.amzn2023                amazonlinux               1.4 M
 libmpc                       x86_64             1.2.1-2.amzn2023.0.2                    amazonlinux                62 k
 libtool-ltdl                 x86_64             2.4.7-1.amzn2023.0.3                    amazonlinux                38 k
 libxcrypt-devel              x86_64             4.4.33-7.amzn2023                       amazonlinux                32 k
 make                         x86_64             1:4.3-5.amzn2023.0.2                    amazonlinux               534 k
```

sudo yum install gd gd-devel

```
[ec2-user@ip-172-31-86-195 ~]$ sudo yum install gd gd-devel
Last metadata expiration check: 0:36:28 ago on Sun Sep 29 06:16:51 2024.
Dependencies resolved.
================================================================================================================================
 Package                      Architecture       Version                                 Repository                 Size
================================================================================================================================
Installing:
 gd                           x86_64             2.3.3-5.amzn2023.0.3                    amazonlinux               139 k
 gd-devel                     x86_64             2.3.3-5.amzn2023.0.3                    amazonlinux                38 k
Installing dependencies:
 brotli                       x86_64             1.0.9-4.amzn2023.0.2                    amazonlinux               314 k
 brotli-devel                 x86_64             1.0.9-4.amzn2023.0.2                    amazonlinux                31 k
 bzip2-devel                  x86_64             1.0.8-6.amzn2023.0.2                    amazonlinux               214 k
 cairo                        x86_64             1.17.6-2.amzn2023.0.1                   amazonlinux               684 k
 cmake-filesystem             x86_64             3.22.2-1.amzn2023.0.4                   amazonlinux                16 k
 fontconfig                   x86_64             2.13.94-2.amzn2023.0.2                  amazonlinux               273 k
 fontconfig-devel             x86_64             2.13.94-2.amzn2023.0.2                  amazonlinux               128 k
 fonts-filesystem             noarch             1:2.0.5-12.amzn2023.0.2                 amazonlinux               9.5 k
 freetype                     x86_64             2.13.2-5.amzn2023.0.1                   amazonlinux               423 k
 freetype-devel               x86_64             2.13.2-5.amzn2023.0.1                   amazonlinux               912 k
 glib2-devel                  x86_64             2.74.7-689.amzn2023.0.2                 amazonlinux               486 k
 google-noto-fonts-common     noarch             20201206-2.amzn2023.0.2                 amazonlinux                15 k
 google-noto-sans-vf-fonts    noarch             20201206-2.amzn2023.0.2                 amazonlinux               492 k
 graphite2                    x86_64             1.3.14-7.amzn2023.0.2                   amazonlinux                97 k
 graphite2-devel              x86_64             1.3.14-7.amzn2023.0.2                   amazonlinux                21 k
```

sudo adduser -m nagios
sudo passwd nagios

```
[ec2-user@ip-172-31-86-195 ~]$ sudo adduser -m nagios
sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
```

sudo groupadd nagcmd

```
[ec2-user@ip-172-31-86-195 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-86-195 ~]$
```

sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache

```
[ec2-user@ip-172-31-86-195 ~]$ sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-86-195 ~]$
```

mkdir ~/downloads
cd ~/downloads

```
[ec2-user@ip-172-31-86-195 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-86-195 downloads]$
```

wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz

```
[ec2-user@ip-172-31-86-195 downloads]$ wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz
--2024-09-29 07:22:16--  https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz
Resolving assets.nagios.com (assets.nagios.com)... 45.79.49.120, 2600:3c00::f03c:92ff:fef7:45ce
Connecting to assets.nagios.com (assets.nagios.com)|45.79.49.120|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2065473 (2.0M) [application/x-gzip]
Saving to: ‘nagios-4.5.5.tar.gz’

nagios-4.5.5.tar.gz           100%[=================================================>]   1.97M  6.21MB/s    in 0.3s

2024-09-29 07:22:17 (6.21 MB/s) - ‘nagios-4.5.5.tar.gz’ saved [2065473/2065473]

[ec2-user@ip-172-31-86-195 downloads]$
```

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

```
[ec2-user@ip-172-31-86-195 downloads]$ wget https://nagios-plugins.org/download/nagios-plugins-2.4.11.tar.gz
--2024-09-29 07:23:16--  https://nagios-plugins.org/download/nagios-plugins-2.4.11.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: 2753049 (2.6M) [application/x-gzip]
Saving to: ‘nagios-plugins-2.4.11.tar.gz’

nagios-plugins-2.4.11.tar.gz  100%[=================================================>]   2.62M  6.58MB/s    in 0.4s

2024-09-29 07:23:16 (6.58 MB/s) - ‘nagios-plugins-2.4.11.tar.gz’ saved [2753049/2753049]
```

tar zxvf nagios-4.5.5.tar.gz

```
[ec2-user@ip-172-31-86-195 downloads]$ tar zxvf nagios-4.5.5.tar.gz
nagios-4.5.5/
nagios-4.5.5/.github/
nagios-4.5.5/.github/workflows/
nagios-4.5.5/.github/workflows/test.yml
nagios-4.5.5/.gitignore
nagios-4.5.5/CONTRIBUTING.md
nagios-4.5.5/Changelog
nagios-4.5.5/INSTALLING
nagios-4.5.5/LEGAL
nagios-4.5.5/LICENSE
nagios-4.5.5/Makefile.in
nagios-4.5.5/README.md
nagios-4.5.5/THANKS
nagios-4.5.5/UPGRADING
```

Now we have to first navigate to the nagios-4.5.5 folder in downloads.

- **commands to enter:**

  ls (verify whether nagios-4.5.5 exists).Then go inside nagios 4.5.5 using cd.

```
[ec2-user@ip-172-31-86-195 downloads]$ ls
nagios-4.5.5  nagios-4.5.5.tar.gz  nagios-plugins-2.4.11.tar.gz
[ec2-user@ip-172-31-86-195 downloads]$ cd nagios-4.5.5
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$
```

we now have to install openssl dev library

The OpenSSL development library, or openssl-devel contains include files that help develop applications that use cryptographic algorithms and protocols

commands to enter:

sudo yum install openssl-devel

```
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$ sudo yum install openssl-devel
Last metadata expiration check: 1:13:15 ago on Sun Sep 29 06:16:51 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                                   31 MB/s | 3.0 MB     00:00
--------------------------------------------------------------------------------------------------------------------------------
Total                                                                            22 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!
```

Then finally we can run the commands like usual.

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

```
[ec2-user@ip-172-31-86-195 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
```

make all

```
[ec2-user@ip-172-31-86-195 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 nebmods.o nebmods.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
```

```
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.
```

sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode

```
[ec2-user@ip-172-31-86-195 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 nagiostats /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'
```

Now the next command will take us to nano editor:
sudo nano /usr/local/nagios/etc/objects/contacts.cfg

```
  GNU nano 5.8                                  /usr/local/nagios/etc/objects/contacts.cfg
##############################################################################
# CONTACTS.CFG - SAMPLE CONTACT/CONTACTGROUP DEFINITIONS
#
#
# NOTES: This config file provides you with some example contact and contact
#        group definitions that you can reference in host and service
#        definitions.
#
#        You don't need to keep these definitions in a separate file from your
#        other object definitions.  This has been done just to make things
#        easier to understand.
#
##############################################################################



##############################################################################
#
# CONTACTS
#
##############################################################################

# Just one contact defined by default - the Nagios admin (that's you)
# This contact definition inherits a lot of default values from the
# 'generic-contact' template which is defined elsewhere.

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                   nagios@localhost ; <****** CHANGE THIS TO YOUR EMAIL ADDRESS ******
}



##############################################################################

^G Help          ^O Write Out     ^W Where Is      ^K Cut           ^T Execute       ^C Location      M-U Undo         M-A Set Mark     M-] To Bracket
^X Exit          ^R Read File     ^\ Replace       ^U Paste         ^J Justify       ^/ Go To Line    M-E Redo         M-6 Copy         ^Q Where Was
```

Change your email

```
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                   2022.kshitij.hundre@ves.ac.in ; <****** CHANGE THIS TO YOUR EMAIL ADDRESS ******
}



##############################################################################

^G Help          ^O Write Out     ^W Where Is      ^K Cut           ^T Execute       ^C Location      M-U Undo         M-A Set Mark     M-] To Bracket
^X Exit          ^R Read File     ^\ Replace       ^U Paste         ^J Justify       ^/ Go To Line    M-E Redo         M-6 Copy         ^Q Where Was
```

Press crtl + O and enter
Press crtl + X

```
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$ sudo nano /usr/local/nagios/etc/objects/contacts.cfg
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$
```

sudo make install-webconf

```
[ec2-user@ip-172-31-86-195 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 ***
```

Adding password for nagios admin

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

```
[ec2-user@ip-172-31-86-195 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
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$
```

sudo service httpd restart

```
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$
```

cd ~/downloads
tar zxvf nagios-plugins-2.4.11.tar.gz

```
[ec2-user@ip-172-31-86-195 nagios-4.5.5]$ cd ~/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
```

cd nagios-plugins-2.4.11
./configure --with-nagios-user=nagios --with-nagios-group=nagios

```
[ec2-user@ip-172-31-86-195 downloads]$ cd 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
```

sudo chkconfig --add nagios
sudo chkconfig nagios on

make
sudo make install

```
[ec2-user@ip-172-31-86-195 nagios-plugins-2.4.11]$ make
sudo make install
make  all-recursive
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
Making all in gl
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/gl'
rm -f alloca.h-t alloca.h && \
{ echo '/* DO NOT EDIT! GENERATED AUTOMATICALLY! */'; \
  cat ./alloca.in.h; \
} > alloca.h-t && \
mv -f alloca.h-t alloca.h
rm -f c++defs.h-t c++defs.h && \
sed -n -e '/_GL_CXXDEFS/,$p' \
```

sudo chkconfig --add nagios
sudo chkconfig nagios on

```
[ec2-user@ip-172-31-86-195 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.
```

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

```
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-172-31-86-195 nagios-plugins-2.4.11]$
```

sudo service nagios start

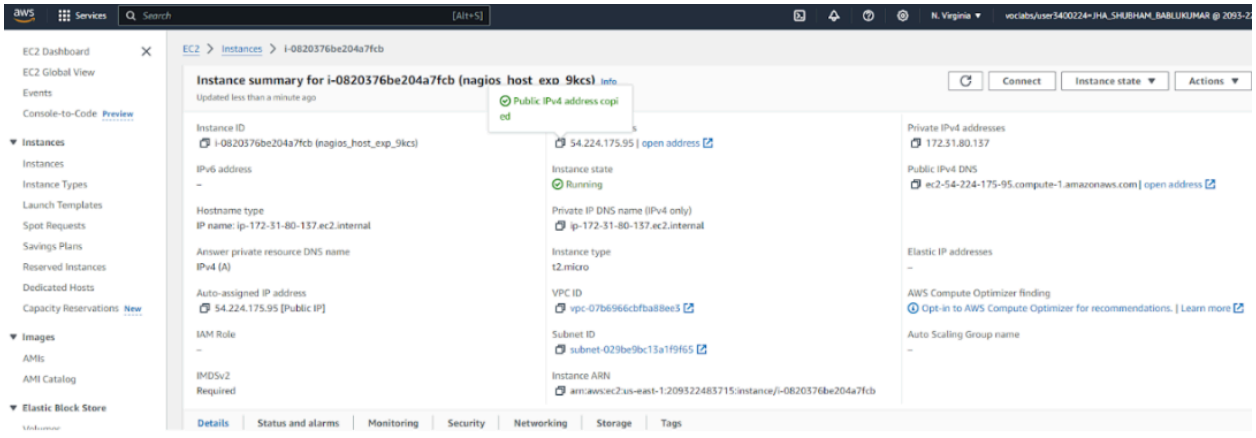
```
[ec2-user@ip-172-31-86-195 nagios-plugins-2.4.11]$ sudo service nagios start
Redirecting to /bin/systemctl start nagios.service
[ec2-user@ip-172-31-86-195 nagios-plugins-2.4.11]$
```

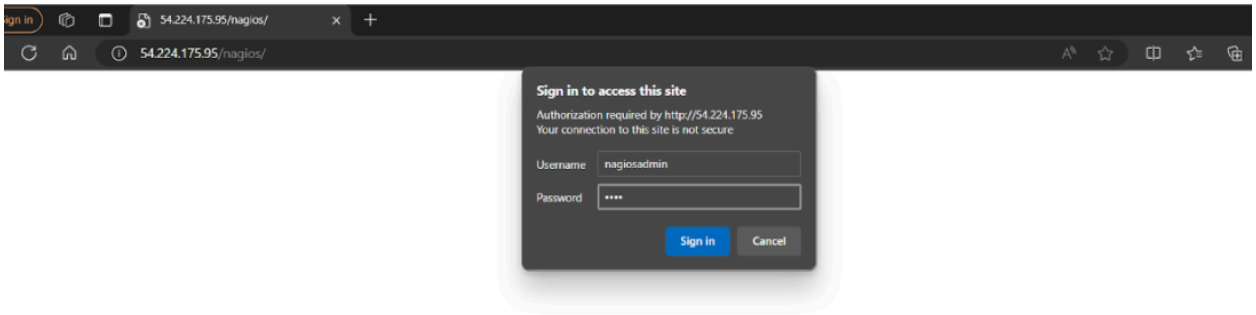
sudo systemctl status nagios

```
[ec2-user@ip-172-31-86-195 nagios-plugins-2.4.11]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.5.5
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
     Active: active (running) since Sun 2024-09-29 08:00:47 UTC; 1min 5s ago
       Docs: https://www.nagios.org/documentation
    Process: 66625 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0
    Process: 66626 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SU
   Main PID: 66627 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 5.8M
        CPU: 90ms
     CGroup: /system.slice/nagios.service
             ├─66627 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─66628 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─66629 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─66630 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─66631 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─66632 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: qh: Socket '/usr/local/nagios/var/rw/nagios.qh' successful
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: qh: core query handler registered
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: qh: echo service query handler registered
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: qh: help for the query handler registered
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: wproc: Successfully registered manager as @wproc with quer
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: wproc: Registry request: name=Core Worker 66630;pid=66630
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: wproc: Registry request: name=Core Worker 66631;pid=66631
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: wproc: Registry request: name=Core Worker 66628;pid=66628
Sep 29 08:00:47 ip-172-31-86-195.ec2.internal nagios[66627]: wproc: Registry request: name=Core Worker 66629;pid=66629
Sep 29 08:00:48 ip-172-31-86-195.ec2.internal nagios[66627]: Successfully launched command file worker with pid 66632
lines 1-28/28 (END)
```

Now, go to EC2 instance and click on instance id. Then, click on the copy icon just before the public ip address on public IP.





Conclusion:

In this experiment, we successfully installed and configured Nagios Core, Nagios Plugins, and NRPE on a Linux machine for continuous monitoring. Nagios proves to be an essential tool in DevOps culture by detecting network and server issues in real-time, ensuring infrastructure health. Its scalability, security, and ability to send automated alerts enhance monitoring efficiency. By integrating NRPE, we extended monitoring to remote hosts, allowing proactive troubleshooting. Overall, Nagios is highly customizable with its plugin support and architecture, making it invaluable for maintaining service availability and operational stability.