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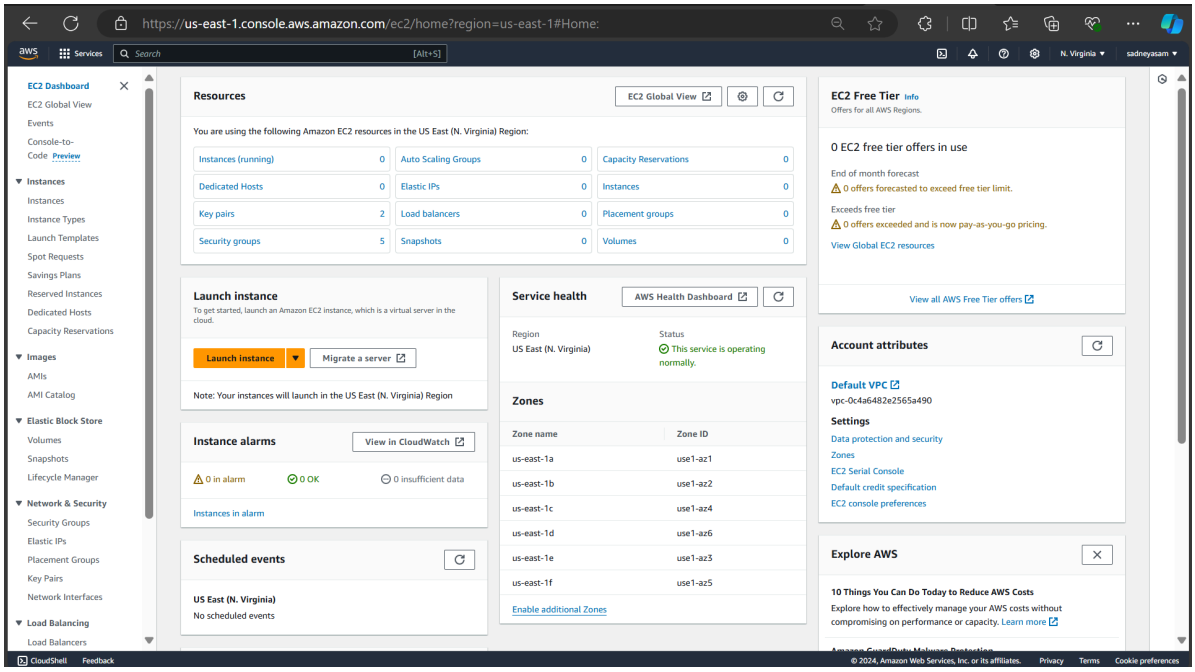
Experiment No:9

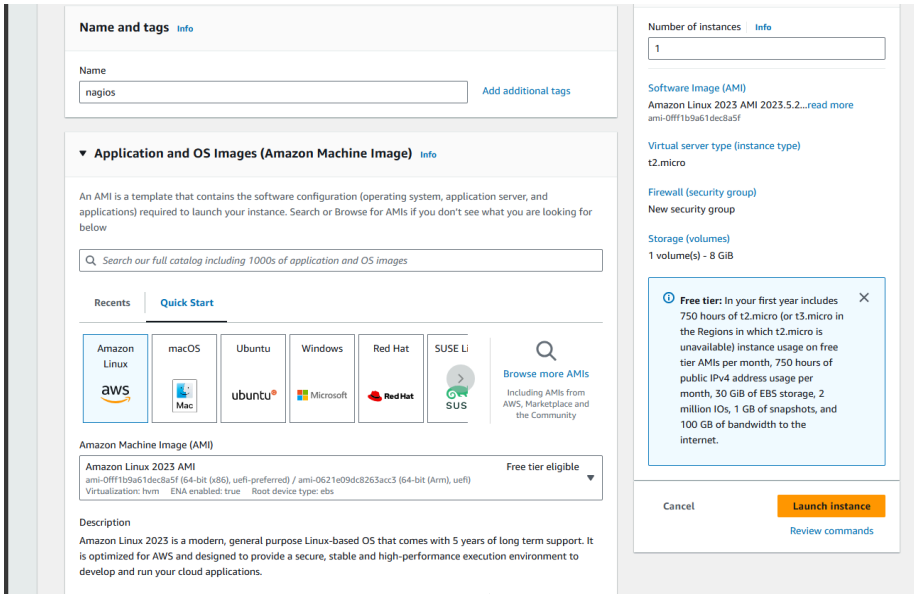
Aim: To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

Steps:

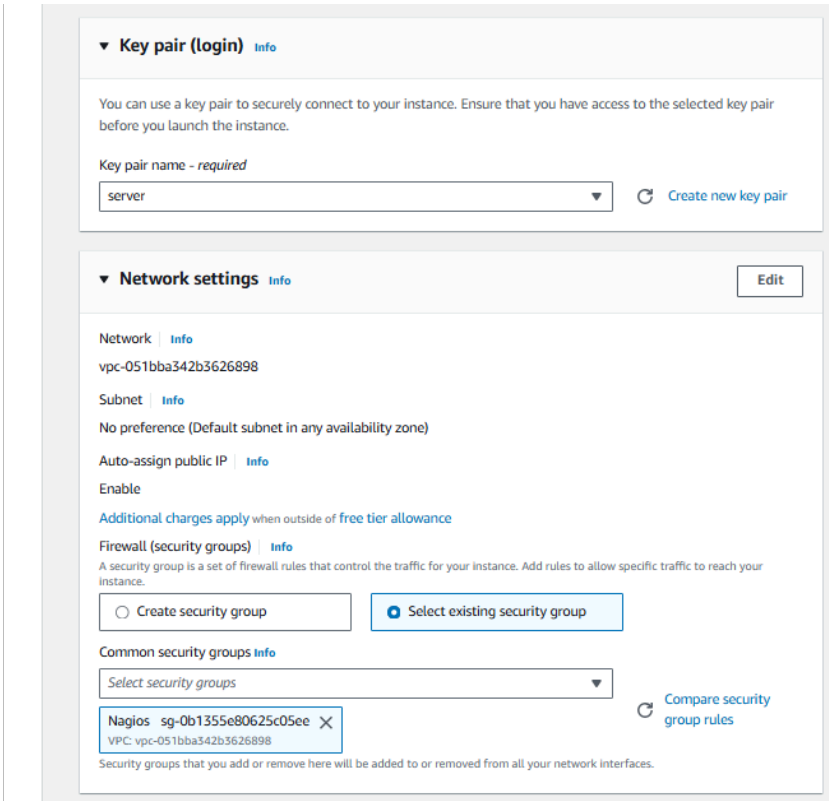
Go to AWS ACADEMY.
On Dashboard, go to EC-2 instance.



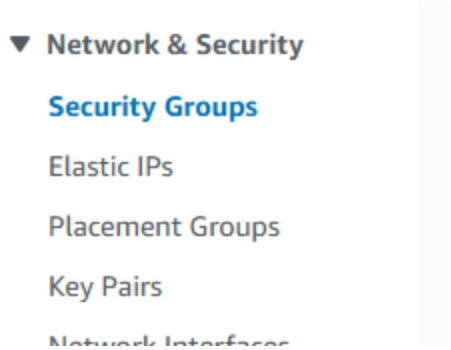
1. **Creation Of EC2 instance:**Create an Amazon Linux EC2 Instance of type t2.micro in AWS and name it - nagios-host



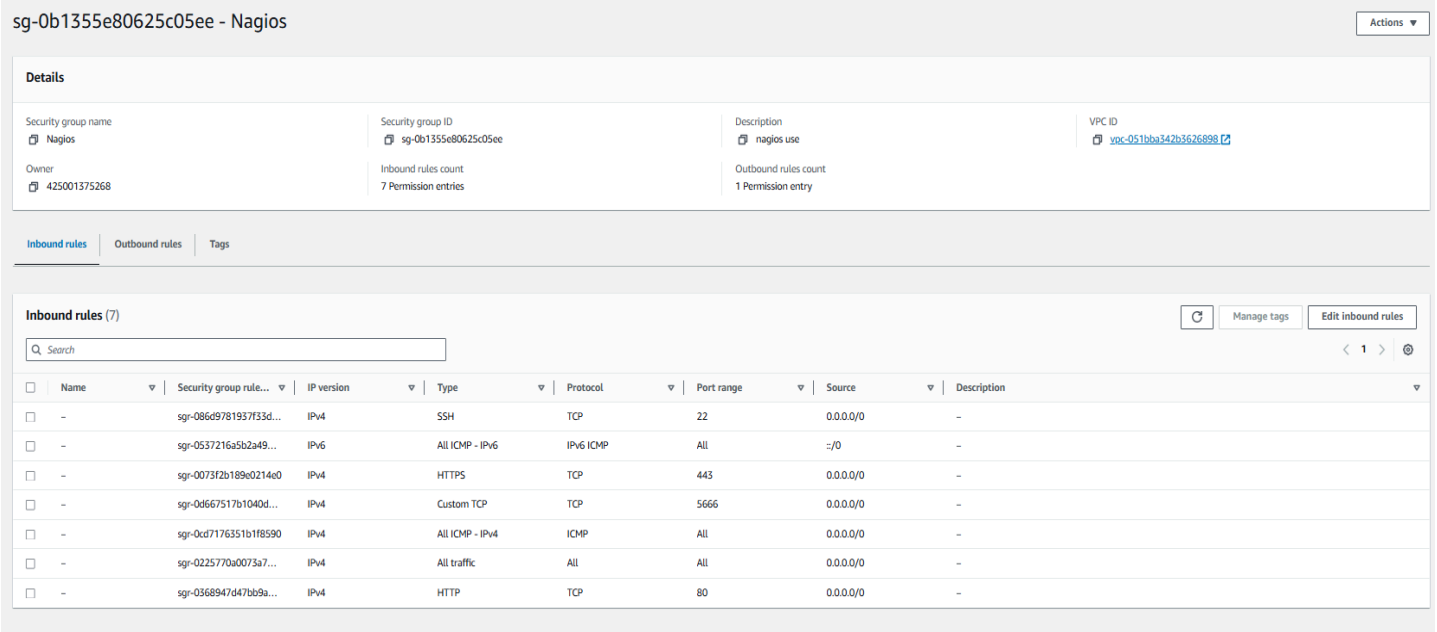
2. Select the existing Key pair or create a new pair.



3. Go back to the EC2 Dashboard there on the left pane, select the security group.



Under Security Group, create a new security group,Give a description to it.Then edit the inbound rules of the specified Security Group for this.add HTTP at port 80, HTTPS at port 443, SSH at port 22, ICMP are open from everywhere.



4.**Making the connection:** Make the connection by SSH into Your EC2 instance.the command is given by **ssh -i "key_name.pem" ec2-user@ec2-public_IP_address.compute-1.awazonaws.com**

```
PS C:\Users\Sadneya\Downloads> ssh -i "server.pem" ec2-user@ec2-18-232-155-134.compute-1.amazonaws.com
The authenticity of host 'ec2-18-232-155-134.compute-1.amazonaws.com (18.232.155.134)' can't be established.
ED25519 key fingerprint is SHA256:6UVLjB6FbGB7A92sIEobs4886tozb5yML0ekn5Xzfrw.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-18-232-155-134.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
```

5. **Installing the packages:** Install the following packages:
   1. sudo yum update

```
[ec2-user@ip-172-31-39-90 ~]$ sudo yum update
sudo yum install httpd php
sudo yum install gcc glibc glibc-common
sudo yum install gd gd-devel
Last metadata expiration check: 0:02:27 ago on Fri Oct  4 03:35:02 2024.
Dependencies resolved.
Nothing to do.
Complete!
```

   2. sudo yum install httpd php
   3. sudo yum install gcc glibc glibc-common
   4. sudo yum install gd gd-devel

```
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
  cmake-filesystem-3.22.2-1.amzn2023.0.4.x86_64         fontconfig-2.13.94-2.amzn2023.0.2.x86_64
  fontconfig-devel-2.13.94-2.amzn2023.0.2.x86_64        fonts-filesystem-1:2.0.5-12.amzn2023.0.2.noarch
  freetype-2.13.2-5.amzn2023.0.1.x86_64                 freetype-devel-2.13.2-5.amzn2023.0.1.x86_64
  gd-2.3.3-5.amzn2023.0.3.x86_64                        gd-devel-2.3.3-5.amzn2023.0.3.x86_64
  glib2-devel-2.74.7-689.amzn2023.0.2.x86_64            google-noto-fonts-common-20201206-2.amzn2023.0.2.noarch
  google-noto-sans-vf-fonts-20201206-2.amzn2023.0.2.noarch graphite2-1.3.14-7.amzn2023.0.2.x86_64
  graphite2-devel-1.3.14-7.amzn2023.0.2.x86_64          harfbuzz-7.0.0-2.amzn2023.0.1.x86_64
  harfbuzz-devel-7.0.0-2.amzn2023.0.1.x86_64            harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64
  jbigkit-libs-2.1-21.amzn2023.0.2.x86_64               langpacks-core-font-en-3.0-21.amzn2023.0.4.noarch
  libICE-1.0.10-6.amzn2023.0.2.x86_64                   libSM-1.2.3-8.amzn2023.0.2.x86_64
  libX11-1.7.2-3.amzn2023.0.4.x86_64                    libX11-common-1.7.2-3.amzn2023.0.4.noarch
  libX11-devel-1.7.2-3.amzn2023.0.4.x86_64              libX11-xcb-1.7.2-3.amzn2023.0.4.x86_64
  libXau-1.0.9-6.amzn2023.0.2.x86_64                    libXau-devel-1.0.9-6.amzn2023.0.2.x86_64
  libXext-1.3.4-6.amzn2023.0.2.x86_64                   libXpm-3.5.15-2.amzn2023.0.3.x86_64
  libXpm-devel-3.5.15-2.amzn2023.0.3.x86_64             libXrender-0.9.10-14.amzn2023.0.2.x86_64
  libXt-1.2.0-4.amzn2023.0.2.x86_64                     libblkid-devel-2.37.4-1.amzn2023.0.4.x86_64
  libffi-devel-3.4.4-1.amzn2023.0.1.x86_64              libicu-67.1-7.amzn2023.0.3.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
  libselinux-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!
```

6.**Create a new user:**Create a new User with its password by following command. Then again retype the password for confirmation.Here,I am creating a user named “nagios”.

sudo adduser -m nagios
sudo passwd nagios

```
[ec2-user@ip-172-31-39-90 ~]$ sudo adduser -m nagios
sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
```

7.**Create a new User group:** Create a new User group by following command.here I am creating a User group named “nagcmd”.
sudo groupadd nagcmd

```
[ec2-user@ip-172-31-39-90 ~]$ sudo groupadd nagcmd
```

8. 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

```
[ec2-user@ip-172-31-39-90 ~]$ sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
```

9. Create a new directory for Nagios downloads

mkdir ~/downloads
cd ~/downloads

```
[ec2-user@ip-172-31-39-90 ~]$ mkdir ~/downloads
cd ~/downloads
```

10. Use wget to download the nagios which is a source zip file by following command.
wget https://go.nagios.org/l/975333/2024-09-17/6kqcx

```
[ec2-user@ip-172-31-39-90 downloads]$ wget https://go.nagios.org/l/975333/2024-09-17/6kqcx
--2024-10-04 03:45:50--  https://go.nagios.org/l/975333/2024-09-17/6kqcx
Resolving go.nagios.org (go.nagios.org)... 3.92.120.28, 34.237.219.119, 52.54.96.194, ...
Connecting to go.nagios.org (go.nagios.org)|3.92.120.28|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz?utm_source=Nagios.org&utm_content=Dow
utm_campaign=Core+4.5.5+Download+&pi_content=1e9662c93afb2ed6bd2e3f3cc38771a7f01125e969f2a75b0e2254439d4a81d8 [following]
--2024-10-04 03:45:51--  http://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz?utm_source=Nagios.org&
=Download+Form&utm_campaign=Core+4.5.5+Download+&pi_content=1e9662c93afb2ed6bd2e3f3cc38771a7f01125e969f2a75b0e2254439d4a81
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|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz?utm_source=Nagios.org&utm_content=Do
&utm_campaign=Core+4.5.5+Download+&pi_content=1e9662c93afb2ed6bd2e3f3cc38771a7f01125e969f2a75b0e2254439d4a81d8 [following]
--2024-10-04 03:45:51--  https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz?utm_source=Nagios.org
t=Download+Form&utm_campaign=Core+4.5.5+Download+&pi_content=1e9662c93afb2ed6bd2e3f3cc38771a7f01125e969f2a75b0e2254439d4a8
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: ‘6kqcx’

6kqcx                          100%[=====================================================>]   1.97M  7.32MB/s    i

2024-10-04 03:45:51 (7.32 MB/s) - ‘6kqcx’ saved [2065473/2065473]

[ec2-user@ip-172-31-39-90 downloads]$
```

11.Then install nagios plugin by following command.

Wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz

```
[ec2-user@ip-172-31-39-90 downloads]$ wget http://nagios-plugins.org/download/nagios-plugins-2.4.11.tar.gz
--2024-10-04 03:47:43--  http://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|:80... 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

2024-10-04 03:47:44 (6.85 MB/s) - ‘nagios-plugins-2.4.11.tar.gz’ saved [2753049/2753049]
```

12. Use tar to unzip the file and then go inside that directory.
tar zxvf 6kqcx

```
[ec2-user@ip-172-31-39-90 downloads]$ tar zxvf 6kqcx
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
nagios-4.5.5/aclocal.m4
nagios-4.5.5/autoconf-macros/
nagios-4.5.5/autoconf-macros/.gitignore
nagios-4.5.5/autoconf-macros/CHANGELOG.md
nagios-4.5.5/autoconf-macros/LICENSE
```

cd nagios-4.5.5

```
[ec2-user@ip-172-31-39-90 downloads]$ cd nagios-4.5.5
```

13. Run the configuration script with the same group name you previously created.
./configure --with-command-group=nagcmd

```
[ec2-user@ip-172-31-39-90 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
```

This given error as can’t find ssl headers

```
checking for Kerberos include files... configure: WARNING: could not find include files
checking for pkg-config... pkg-config
checking for SSL headers... configure: error: Cannot find ssl headers
```

14. For this install the following packages to solve the above error.

Sudo yum install openssl-devel

```
[ec2-user@ip-172-31-39-90 nagios-4.5.5]$ sudo yum install openssl-devel
Last metadata expiration check: 0:16:59 ago on Fri Oct  4 03:35:02 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                                   19 MB/s | 3.0 MB     00:00
------------------------------------------------------------------------------------------------------------------------------------------------
Total                                                                            15 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!
```

15.The again Run the configuration script with the same group name you previously created. Now the error has been removed.

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

```
[ec2-user@ip-172-31-39-90 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
```

```
Creating sample config files in sample-config/ ...


*** 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.
```

16.Then Install the make (binaries), then initialize the script and sample config files. Lastly, set permissions on the external command directory.

1. sudo make install
2. sudo make install-init
3. sudo make install-config
4. sudo make install-commandmode

```
[ec2-user@ip-172-31-39-90 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'
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'
```

```
*** Main program, CGIs and HTML files installed ***

You can continue with installing Nagios as follows (type 'make'
without any arguments for a list of all possible options):

  make install-init
     - This installs the init script in /lib/systemd/system

  make install-commandmode
     - This installs and configures permissions on the
       directory for holding the external command file

  make install-config
     - This installs sample config files in /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 ***
```

17.Then Edit the configuration file and change the email address.
sudo nano /usr/local/nagios/etc/objects
cd nagios-plugins-2.4.11
[ec2-user@ip-172-31-39-90 nagios-plugins-2.4.11]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios

```
[ec2-user@ip-172-31-39-90 downloads]$ cd nagios-plugins-2.4.11
[ec2-user@ip-172-31-39-90 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
```

18. Configure the web interface by following command.
sudo make install-webconf

```
[ec2-user@ip-172-31-39-90 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 ***
```

19. Create a “nagiosadmin” account for “nagios” login along with password. You’ll have to specify the password and then again retype the password.

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

```
[ec2-user@ip-172-31-39-90 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
```

20. Then again restart apache by following command: sudo service httpd restart

```
[ec2-user@ip-172-31-39-90 nagios-4.5.5]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
```

21. Then again go back to the downloads folder and unzip the plugins zip file.
cd ~/downloads
tar zxvf nagios-plugins-2.0.3.tar.gz

```
[ec2-user@ip-172-31-39-90 nagios-4.5.5]$ cd ~/downloads
[ec2-user@ip-172-31-39-90 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/
```

22.To Start Nagios.Firstly,Add Nagios to the list of system services
sudo chkconfig --add nagios

This given error as it can't find the directory.

```
[ec2-user@ip-172-31-39-90 nagios-plugins-2.4.11]$ sudo chkconfig --add nagios
error reading information on service nagios: No such file or directory
```

23. Firstly check the configuration by this command
sudo chkconfig nagios on
24.Then Verify the sample configuration files by following command.
sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

```
ec2-user@ip-172-31-39-90:~
[ec2-user@ip-172-31-39-90 ~]$ 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
```

This command executed successfully with no errors and no warnings.

25. **Starting Nagios:** Start Nagios by following command
sudo service nagios start

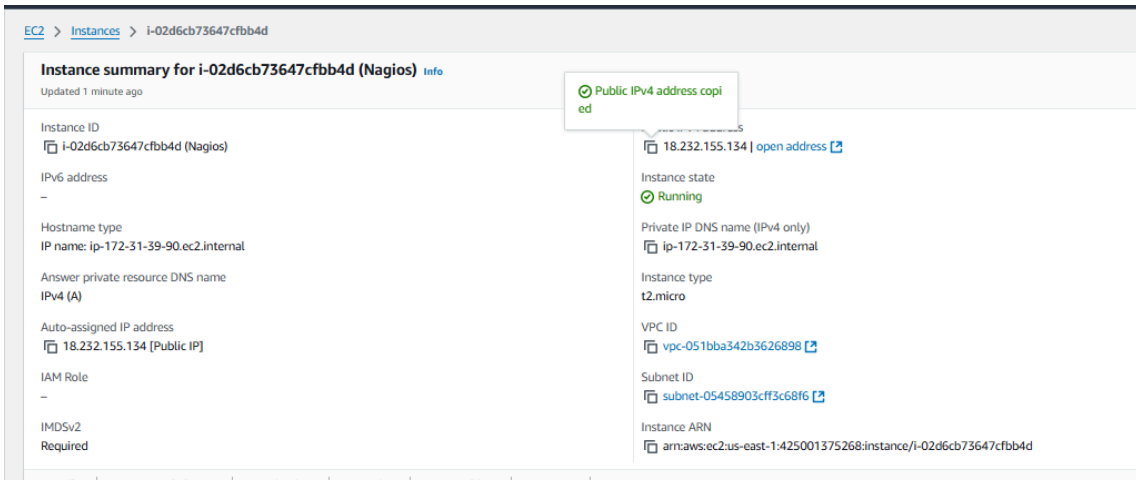
```
[ec2-user@ip-172-31-39-90 ~]$ sudo service nagios start
Redirecting to /bin/systemctl start nagios.service
```

26.**Checking the status:** Then Check the status of Nagios by following command
sudo systemctl status nagios

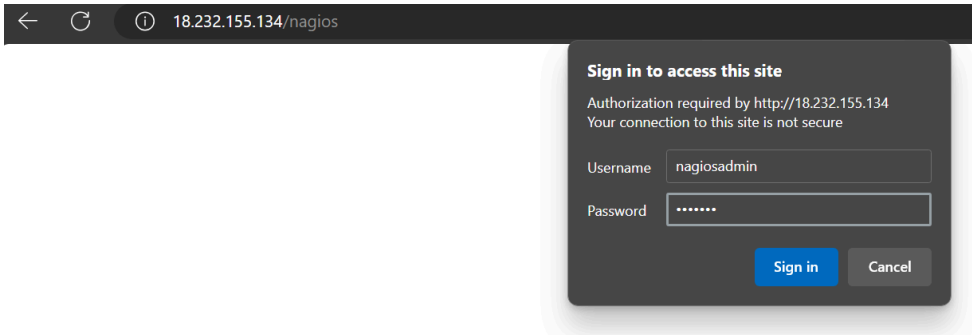
```
[ec2-user@ip-172-31-39-90 ~]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.5.5
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; disabled; preset: disabled)
     Active: active (running) since Fri 2024-10-04 04:14:29 UTC; 1min 41s ago
       Docs: https://www.nagios.org/documentation
    Process: 75298 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
    Process: 75299 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Main PID: 75300 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 5.6M
        CPU: 89ms
     CGroup: /system.slice/nagios.service
             ├─75300 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─75301 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─75302 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─75303 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─75304 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─75305 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: wproc: Successfully registered manager as @wproc with query handler
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: wproc: Registry request: name=Core Worker 75301;pid=75301
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: wproc: Registry request: name=Core Worker 75302;pid=75302
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: wproc: Registry request: name=Core Worker 75304;pid=75304
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: wproc: Registry request: name=Core Worker 75303;pid=75303
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: Successfully launched command file worker with pid 75305
Oct 04 04:14:29 ip-172-31-39-90.ec2.internal nagios[75300]: HOST ALERT: localhost;DOWN;SOFT;1;(No output on stdout) stderr: execvp(/>
Oct 04 04:15:06 ip-172-31-39-90.ec2.internal nagios[75300]: SERVICE ALERT: localhost;Current Load;CRITICAL;HARD;1;(No output on stdo>
Oct 04 04:15:29 ip-172-31-39-90.ec2.internal nagios[75300]: HOST ALERT: localhost;DOWN;SOFT;2;(No output on stdout) stderr: execvp(/>
Oct 04 04:15:44 ip-172-31-39-90.ec2.internal nagios[75300]: SERVICE ALERT: localhost;Current Users;CRITICAL;HARD;1;(No output on std>
[ec2-user@ip-172-31-39-90 ~]$
```

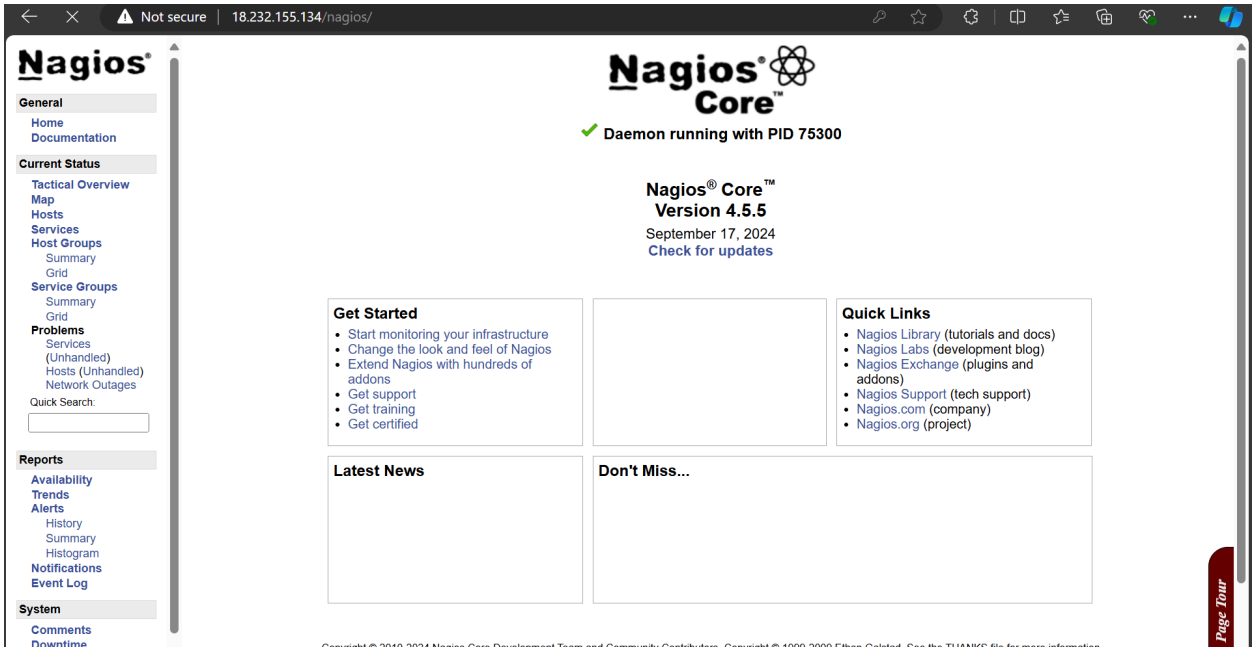
27. Then Go back to EC2 Console and copy the Public IP address of this instance.



28. Open up your browser and look for **http://<your_public_ip_address>/nagios (http://18.232.155.134/nagios)**
Enter username as “nagiosadmin” and password which you set in Step 19.



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



This means that Nagios was correctly installed and configured with its plugins so far.

Conclusion: Here,I have created an EC2 instance of t2.micro successfully.For EC2 instance I have created a security group nagios where I have added inbound rules.Then I have created user name “nagios” and user group “nagcmd”. Then I installed nagios and also nagios plugin successfully.Then I configured it but gave an error about can’t find ssl headers.Then I installed the required packages.Then it configured successfully.Then configured the web interfaces.Then I have started the nagios on the **http://18.232.155.134/nagios.** It given the final dashboard of nagios successfully