ADVANCE DEVOPS EXPERIMENT 9
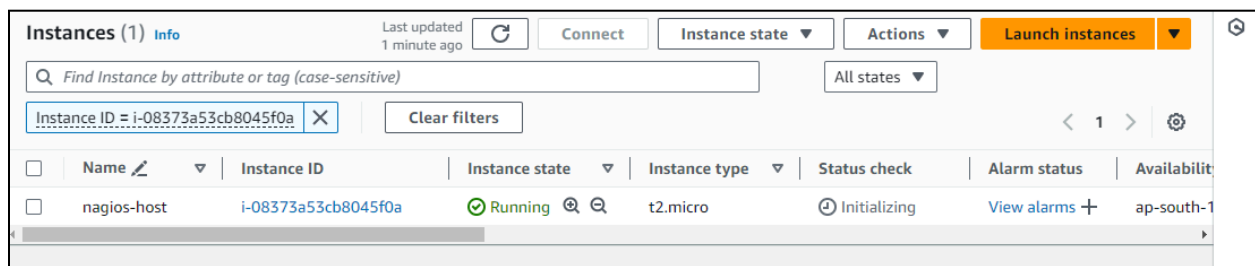
Name:Aryan Anil Patankar

Class:D15A

Roll No:34

Aim:To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine
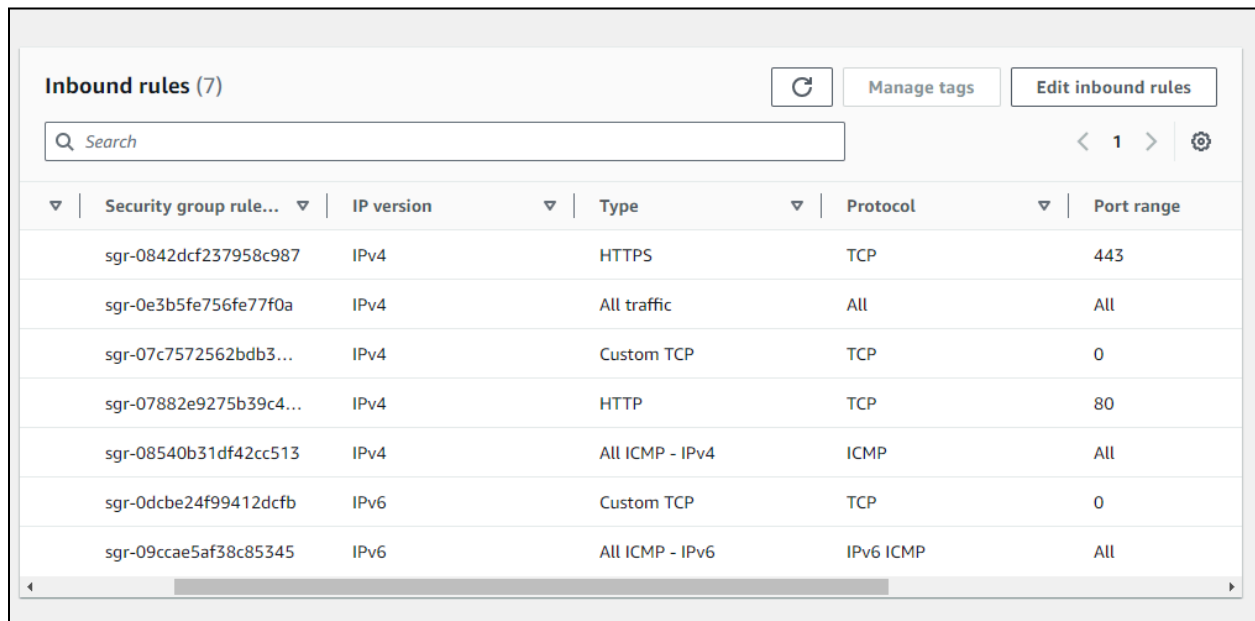
Step 1: Create an Amazon Linux EC2 instance and name it as nagios-host

Step 2: Edit the following inbound rules of the specified security groups and ensure HTTP.HTTPS,SSH,ICMP are accessible from anywhere

Step 3:Connect to your EC2 instance via the connect option available in EC2 instances menu

```
[ec2-user@ip-172-31-33-14 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:19:23 ago on Thu Sep 26 08:42:17 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
```

Step 4: Update and install the required packages

Use the following commands:

sudo yum update

sudo yum install httpd php

sudo yum install gcc glibc glibc-common

sudo yum install gd gd-devel

```
[ec2-user@ip-172-31-33-14 ~]$ sudo yum install gcc glibc glibc-common
Last metadata expiration check: 0:20:32 ago on Thu Sep 26 08:42:17 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
```

```
[ec2-user@ip-172-31-33-14 ~]$ sudo yum install gd gd-devel
Last metadata expiration check: 0:21:27 ago on Thu Sep 26 08:42:17 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
```

Step 5:Create a new nagios user by writing the following commands
sudo adduser -m nagios
sudo passwd nagios

```
Complete!
[ec2-user@ip-172-31-33-14 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-33-14 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-33-14 ~]$ []
```

Step 6: Create a new user group using **sudo groupadd nagcmd** and
Add users to the group using the following commands:
sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache

```
Complete!
[ec2-user@ip-172-31-33-14 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-33-14 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-33-14 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-33-14 ~]$ sudo usermod -a -G nagcmd nagios
[ec2-user@ip-172-31-33-14 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-33-14 ~]$ mkdir downloads
[ec2-user@ip-172-31-33-14 ~]$ cd downloads
[ec2-user@ip-172-31-33-14 downloads]$ wget https://sourceforge.net/projects/nagios/files/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz/download?use
_mirror=excellmedia
--2024-09-26 09:15:54--  https://sourceforge.net/projects/nagios/files/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz/download?use_mirror=excellmedi
a
Resolving sourceforge.net (sourceforge.net)... 172.64.150.145, 104.18.37.111, 2606:4700:4400::6812:256f, ...
Connecting to sourceforge.net (sourceforge.net)|172.64.150.145|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?ts=gAAAAABm9SZKLFW7LwD1QAJ2jNzqmSJwAPA1mQ-
eAJYK8z5NmrV ifVkhbsV-qOfPsLUyICC6yvdHu6UeeIyvNZsVGUtir9BeQ%3D%3D&use mirror=excellmedia&r= [following]
```

Step 7: Create a directory for Nagios downloads using the following commands-
Commands -
mkdir ~/downloads
cd ~/downloads

Also download Nagios and plugin source files
Commands -
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

```
Connecting to prdownloads.sourceforge.net (prdownloads.sourceforge.net)|204.68.111.105|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]
--2024-09-26 09:38:43--  https://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz
Resolving downloads.sourceforge.net (downloads.sourceforge.net)... 204.68.111.105
Connecting to downloads.sourceforge.net (downloads.sourceforge.net)|204.68.111.105|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://excellmedia.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1 [following]
--2024-09-26 09:38:45--  https://excellmedia.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving excellmedia.dl.sourceforge.net (excellmedia.dl.sourceforge.net)... 202.153.32.19, 2401:fb00:0:1fe:8000::5
Connecting to excellmedia.dl.sourceforge.net (excellmedia.dl.sourceforge.net)|202.153.32.19|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1805059 (1.7M) [application/x-gzip]
Saving to: 'nagios-4.0.8.tar.gz'

nagios-4.0.8.tar.gz            100%[===============================================================>]   1.72M  8.14MB/s    in 0.2s

2024-09-26 09:38:45 (8.14 MB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]

[ec2-user@ip-172-31-33-14 downloads]$ ls
'download?use_mirror=excellmedia'   nagios-4.0.8.tar.gz
[ec2-user@ip-172-31-33-14 downloads]$ tar -xzf nagios-4.0.8.tar.gz
[ec2-user@ip-172-31-33-14 downloads]$ 
```

Step 8-Extract the nagios source file with the following commands
tar zxvf nagios-4.4.6.tar.gz
cd nagios-4.4.6

Then run the configuration script with the following command
/configure --with-command-group=nagcmd

```
         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:  ${prefix}/var/nagios.lock
    Check result directory:  ${prefix}/var/spool/checkresults
           Init directory:  /etc/rc.d/init.d
  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-172-31-33-14 nagios-4.0.8]$ 
```

Step 9-Compile the source code with the following commands

make all

Step 10-Install binaries,init script and sample config files

Commands -

./sudo make install

sudo make install-init

sudo make install-config

sudo make install-commandmode
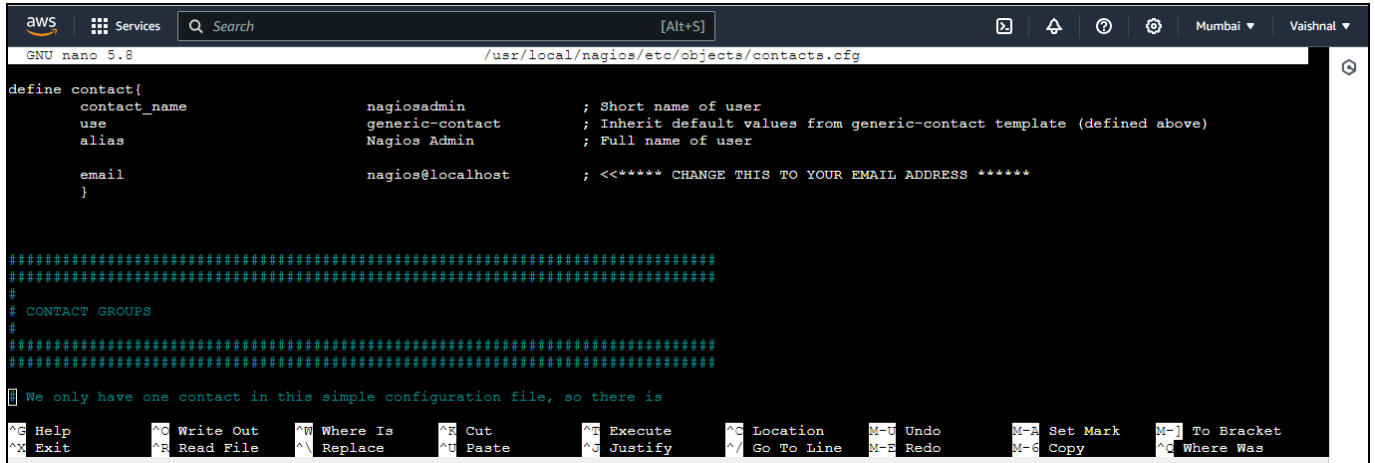

Step 11-Edit the Config File to Change the Email Address

Commands -

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

● Change the email address in the contacts.cfg file to your preferred email

Step 12-Configure the Web Interface

Commands -

sudo make install-webconf
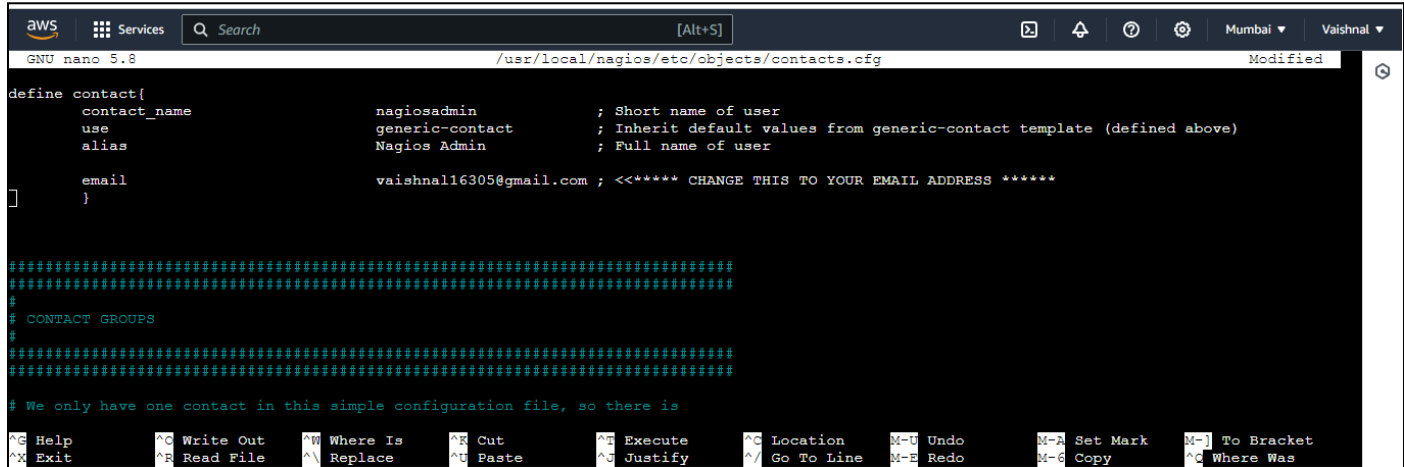
Step 13-Create a Nagios Admin Account

Commands -

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

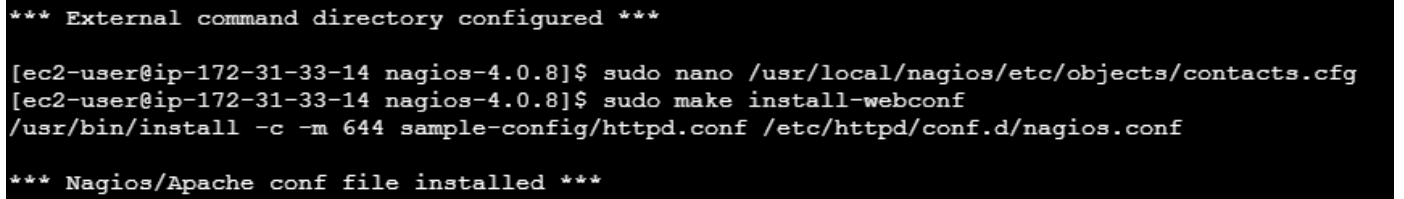● You will be prompted to enter and confirm the password for the nagiosadmin

user

Step 14-. Extract the Plugins Source File

Commands -

cd ~/downloads

tar zxvf nagios-plugins-2.3.3.tar.gz

cd nagios-plugins-2.3.3

Step 15-19. Compile and Install Plugins

Commands -

./configure --with-nagios-user=nagios --with-nagios-group=nagios

make

sudo make install

```
[ec2-user@ip-172-31-33-14 nagios-4.0.8]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
```
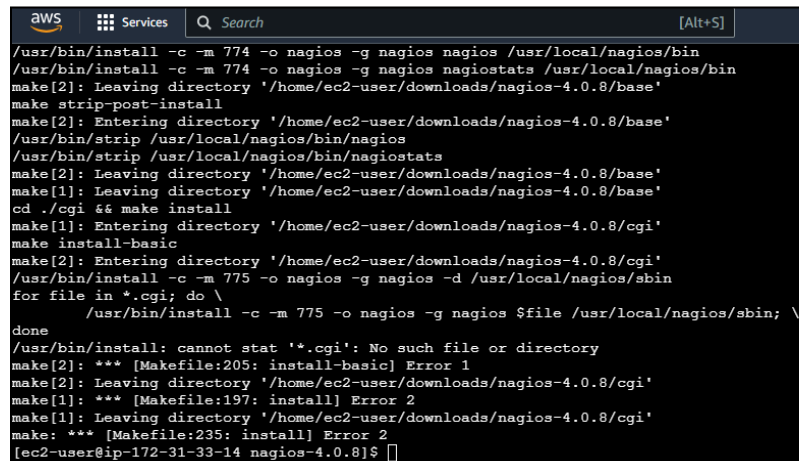
Step 16-Start Nagios

Commands -

sudo chkconfig --add nagios

sudo chkconfig nagios on

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

sudo systemctl start nagios

```
aws    Services    Q Search                              [Alt+S]         ⊡   ♢   ⊘   ⊗    Mumbai ▾
/usr/bin/install -c -m 774 -o nagios -g nagios nagios /usr/local/nagios/bin
/usr/bin/install -c -m 774 -o nagios -g nagios nagiostats /usr/local/nagios/bin
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
make strip-post-install
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/base'
/usr/bin/strip /usr/local/nagios/bin/nagios
/usr/bin/strip /usr/local/nagios/bin/nagiostats
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
cd ./cgi && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/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 -m 775 -o nagios -g nagios $file /usr/local/nagios/sbin; \
done
/usr/bin/install: cannot stat '*.cgi': No such file or directory
make[2]: *** [Makefile:205: install-basic] Error 1
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
make[1]: *** [Makefile:197: install] Error 2
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
make: *** [Makefile:235: install] Error 2
[ec2-user@ip-172-31-33-14 nagios-4.0.8]$ []
```

Step 17-Access Nagios Web Interface

 ● Copy the Public IP address of your EC2 instance.

 ● Open your browser and navigate to http:///nagios.

 ● Enter the username nagiosadmin and the password you set in Step 16.

Nagios® Core™

🖼 **Unable to get process status**

Nagios® Core™
Version 4.4.6
April 28, 2020
Check for updates

A new version of Nagios Core is available!
Visit nagios.org to download Nagios 4.5.5.

Get Started
- Start monitoring your infrastructure
- Change the look and feel of Nagios
- Extend Nagios with hundreds of addons
- Get support
- Get training
- Get certified

Quick Links
- Nagios Library (tutorials and docs)
- Nagios Labs (development blog)
- Nagios Exchange (plugins and addons)
- Nagios Support (tech support)
- Nagios.com (company)
- Nagios.org (project)

Latest News

Don't Miss...