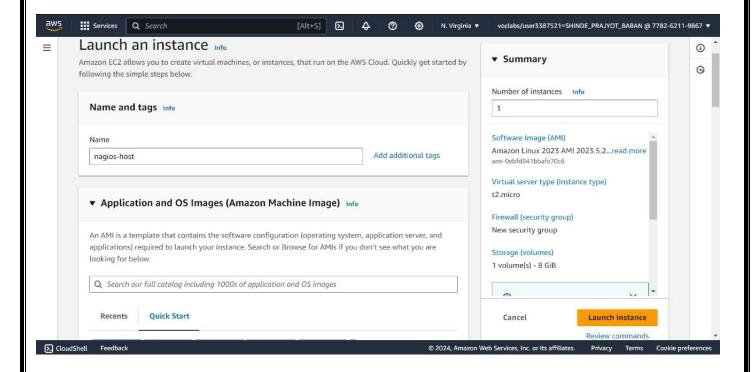
ADVANCE DEVOPS EXP 9

Name:- Prajyot Shinde

Roll no :- 57

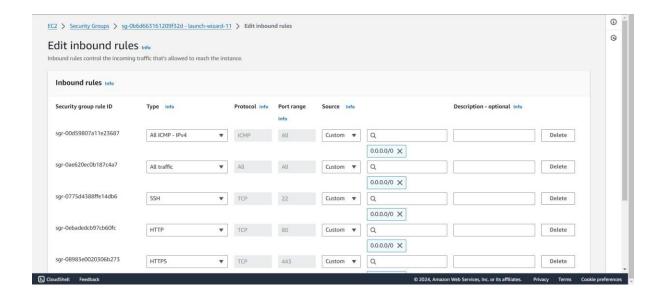
Aim :- To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

1. Create an Amazon Linux EC2 Instance



2. Configure Security Group

- Ensure HTTP, HTTPS, SSH, and ICMP are open from everywhere.
- Edit the inbound rules of the specified Security Group



You have to edit the inbound rules of the specified Security Group for this.

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

```
O Keyboard shortcut
To tab out of the terminal window and select the next button element, press the left and right Shift keys together.

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

i-Oce5684c780a9ed59 (nagios-host)

Publicips: $4.173.178.241 Privatelps: 172.31.45.178
```

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

```
[ec2-user@ip-172-31-40-254 ~]$ sudo yum update
Last metadata expiration check: 0:01:31 ago on Wed Oct 2 05:48:47 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-40-254 ~]$
```

sudo yum install httpd php

Package	Architecture	Version	Repository	Si
nstalling:				
httpd	x86 64	2.4.62-1.amzn2023	amazonlinux	48
php8.3	x86 64	8.3.10-1.amzn2023.0.1	amazonlinux	10
nstalling dependencies:				
ipr	x86_64	1.7.2-2.amzn2023.0.2	amazonlinux	129
apr-util	x86_64	1.6.3-1.amzn2023.0.1	amazonlinux	98
generic-logos-httpd	noarch	18.0.0-12.amzn2023.0.3	amazonlinux	19
nttpd-core	x86_64	2.4.62-1.amzn2023	amazonlinux	1.4
httpd-filesystem	noarch	2.4.62-1.amzn2023	amazonlinux	14
httpd-tools	x86_64	2.4.62-1.amzn2023	amazonlinux	81
libbrotli	x86_64	1.0.9-4.amzn2023.0.2	amazonlinux	315
Libsodium	x86_64	1.0.19-4.amzn2023	amazonlinux	176
libxslt	x86 64	1.1.34-5.amzn2023.0.2	amazonlinux	241
nailcap	noarch	2.1.49-3.amzn2023.0.3	amazonlinux	33
nginx-filesystem	noarch	1:1.24.0-1.amzn2023.0.4	amazonlinux	9.8
php8.3-cli	x86_64	8.3.10-1.amzn2023.0.1	amazonlinux	3.7
php8.3-common	x86_64	8.3.10-1.amzn2023.0.1	amazonlinux	737
php8.3-process	x86 64	8.3.10-1.amzn2023.0.1	amazonlinux	45

sudo yum install gcc glibc glibc-common

sudo yum install gd gd-devel

Package	Architecture	Version	Repository	Siz
installing:				
gd	x86_64	2.3.3-5.amzn2023.0.3	amazonlinux	139
gd-devel	x86_64	2.3.3-5.amzn2023.0.3	amazonlinux	38
nstalling dependencies:				
brotli	x86_64	1.0.9-4.amzn2023.0.2	amazonlinux	314
brotli-devel	x86_64	1.0.9-4.amzn2023.0.2	amazonlinux	31
bzip2-devel	x86_64	1.0.8-6.amzn2023.0.2	amazonlinux	214
cairo	x86_64	1.17.6-2.amzn2023.0.1	amazonlinux	684
cmake-filesystem	x86_64	3.22.2-1.amzn2023.0.4	amazonlinux	16
fontconfig	x86_64	2.13.94-2.amzn2023.0.2	amazonlinux	273
fontconfig-devel	x86_64	2.13.94-2.amzn2023.0.2	amazonlinux	128
fonts-filesystem	noarch	1:2.0.5-12.amzn2023.0.2	amazonlinux	9.5
freetype	x86_64	2.13.2-5.amzn2023.0.1	amazonlinux	423
freetype-devel	x86_64	2.13.2-5.amzn2023.0.1	amazonlinux	912
glib2-devel	x86_64	2.74.7-689.amzn2023.0.2	amazonlinux	486
google-noto-fonts-common	noarch	20201206-2.amzn2023.0.2	amazonlinux	15
google-noto-sans-vf-fonts	noarch	20201206-2.amzn2023.0.2	amazonlinux	492
graphite2	x86_64	1.3.14-7.amzn2023.0.2	amazonlinux	97
graphite2-devel	x86_64	1.3.14-7.amzn2023.0.2	amazonlinux	
harfbuzz	x86_64	7.0.0-2.amzn2023.0.1	amazonlinux	868
harfbuzz-devel	x86_64	7.0.0-2.amzn2023.0.1	amazonlinux	404
harfbuzz-icu	x86 64	7.0.0-2.amzn2023.0.1	amazonlinux	18

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-172-31-40-254 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-40-254 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
Sorry, passwords do not match.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-40-254 ~]$
```

6. Create a new user group sudo groupadd nagcmd

```
[ec2-user@ip-172-31-40-254 ~]$ sudo groupadd nagcmd [ec2-user@ip-172-31-40-254 ~]$
```

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

```
[ec2-user@ip-1/2-31-40-254 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-40-254 ~]$ sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-40-254 ~]$
```

8. Create a new directory for Nagios downloads mkdir ~/downloads cd ~/downloads

```
[ec2-user@ip-172-31-40-254 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-40-254 downloads]$
```

9. Use wget to download the source zip files.

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

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

```
tar zxvf nagios-4.4.6.tar.gz cd nagios-4.4.6
```

```
s-4.4.6/README.md
s-4.4.6/PREADME.md
s-4.4.6/PURGRADING
s-4.4.6/autoconf-macros/
s-4.4.6/autoconf-macros/gitignore
s-4.4.6/autoconf-macros/GHANGRIJOG.md
s-4.4.6/autoconf-macros/CHANGRIJOG.md
s-4.4.6/autoconf-macros/LICENSE.md
s-4.4.6/autoconf-macros/LICENSE.md
s-4.4.6/autoconf-macros/Automacros/get_init
s-4.4.6/autoconf-macros/ax nagios_get_init
s-4.4.6/autoconf-macros/ax nagios_get_init
s-4.4.6/autoconf-macros/ax_nagios_get_init
s-4.4.6/autoconf-macros/ax_nagios_get_s
s-4.4.6/autoconf-macros/ax_nagios_get_s
s-4.4.6/autoconf-macros/ax_nagios_get_s
s-4.4.6/autoconf-macros/ax_nagios_get_s
s-4.4.6/autoconf-macros/ax_nagios_get_s
s-4.4.6/base/gitignore
s-4.4.6/base/gitignore
s-4.4.6/base/picker.c
```

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

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

```
sc2_user&1p-172-31-40-254 nagios-4.4.61$./configure --with-comman thecking for a BSD-compatible install.../usr/bin/install -c thecking build system type... x86_64-pc-linux-gnu thecking host system type... x86_64-pc-linux-gnu thecking host system type... x86_64-pc-linux-gnu thecking for gcc... gcc thecking whether the c compiler works... yes thecking for suffix of executables... thecking for compiler default output file name... a.out thecking for suffix of executables... thecking for suffix of object files... o thecking whether we are cross compiling... no thecking whether gcc accepts -q... yes thecking whether gcc accepts -q... yes thecking whether make sets $[MAKE]... yes thecking whether nake sets $[MAKE]... yes thecking for gcc option to accept ISO (89... none needed thecking whether In -s works... yes thecking for strip... /usr/bin/strip thecking for or sys-/wait.th that is Positx.l compatible... yes thecking for strip... /usr/bin/grep -B thecking for sys-/wait.th that is Positx.l compatible... yes thecking for sys/vait.th that is Positx.l compatible... yes thecking for sys/vait.th that is Positx.l compatible... yes thecking for sys/stat.h. that is Positx.l compatible... yes thecking for string.h... yes thecking for stringsh... yes thecking for prosecular yes thecking for prosecular yes thecking for memory.h... yes thecking for prosecular yes thecking for prosecular yes thecking for stringsh... yes thecking for prosecular yes thecking for stringsh... yes thecking for prosecular yes thecking for stringsh... yes thecking for
```

12. Compile the source code.

make all

```
suprint(port_str, sizeof(port_str), %d, port);

suprintf(port_str, sizeof(port_str), %dd, port);

suprintf(port_str, sizeof(port_str), %dd, port);
stutils.c:50:9: note: 'smprintf' output between 2 and 12 bytes into a destination of size 6
50 | smprintf(port_str, sizeof(port_str), "%d", port);
```

```
make install-classicui
- This installs the classic theme for the Nagios
web interface

*** Support Notes

**
```

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

./sudo make install sudo make install-init sudo make install-config sudo make install-commandmode

```
lec2-user@ip-172-31-40-254 nagios-4.4.6]$ ./sudo make install sudo make install-comfig sudo make install-comfig sudo make install-comfig sudo make install-commandmode --bash: ./sudo: No such file or directory /usr/bin/install .c = m755 -d -or root -g root startup/default-service /lib/systemd/system/nagios.service /usr/bin/install .c = m775 -o nagios -g nagios -d /usr/local/nagios/etc /usr/bin/install .c = m775 -o nagios -g nagios -d /usr/local/nagios/etc /usr/bin/install .c = b m 664 -o nagios -g nagios sample-config/quire/cf g/usr/local/nagios/etc/resource.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/segurce.cfg /usr/local/nagios/etc/resource.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/segurce.cfg /usr/local/nagios/etc/resource.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/templates.cfg /usr/local/nagios/etc/objects/commands.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/commands.cfg /usr/local/nagios/etc/objects/commands.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/commands.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/timperiods.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/timperiods.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/timperiods.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/timperiods.cfg /usr/local/nagios/etc/objects/vindows.cfg /usr/bin/install .c = b -m 664 -o nagios -g nagios sample-config/template-object/pinter.cfg /usr/local/nagios/etc/objects/vindows.cfg /usr/local/nagios/etc/objects/switch.cfg /usr/local/nagios/etc/objects/switch.cfg /usr/local/nagios/etc/object
```

14. Edit the config file and change the email address.

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

```
GNU nano 5.8

Just one contact defined by default - the Nagios admin (that's you)

Finis contact definition inherits a lot of default values from the

'quencif-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 bhagyeshpatil07028gmail.com; CHANGE THIS TO YOUR EMAIL ADDRESS *****

CONTACT GROUPS

**We only have one contact in this simple configuration file, so there is
no need to create more than one contact group.

define contactgroup (

Melip To Write Cut To Where Is To Cut To Execute To Location Note Undo Note A Set Mark Note To Bracket Note Previous

A Sexit To Read File To Replace To Faste To Justify Note To Line Note Copy To Where Was Note To Note To Line Note To Lin
```

15. Configure the web interface.

sudo make install-webconf

16. 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-172-31-40-254 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-172-31-40-254 nagios-4.4.6]$
```

17. Restart Apache sudo systemctl restart httpd

```
Adding password for user nagiosadmin
[ec2-user@ip-172-31-40-254 nagios-4.4.6]$ sudo systemctl restart httpd
[ec2-user@ip-172-31-40-254 nagios-4.4.6]$
```

cd ~/downloads tar zxvf nagiosplugins-2.3.3.tar.gz cd nagiosplugins-2.3.3

```
| fecc_userFile_172-3_1-0-254 nagios_4.4.61$ cd o/downloads | terture_172-3_1-0-254 nagios_9_10ugins_2.3.3 | terture_172-3_1-0-354 nagios_9_10ugins_2.3.3 | terture_172-3_10-354 nagios_9_10ugins_2.3
```

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

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

group=nagios make sudo make install

```
lec2-user8ip-172-31-80-22 nagios-plugins-2.3.3]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios
nake
sudo make install
thecking for a BSD-compatible install... /usr/bin/install -c
thecking whether build environment is sane... yes
thecking for a thread-safe mkdir -p... /usr/bin/mkdir -p
thecking for gawk... gawk
thecking whether make sets $(MAKE)... yes
thecking whether to disable maintainer-specific portions of Makefiles... yes
thecking build system type... x86_64-unknown-linux-gnu
thecking host system type... x86_64-unknown-linux-gnu
thecking for gcc... gcc
thecking for C compiler default output file name... a.out
thecking whether the C compiler works... yes
thecking whether we are cross compiling... no
thecking for suffix of executables...
thecking for suffix of object files... o
thecking whether we are using the GNU C compiler... yes
thecking whether gcc accepts -g... yes
thecking for style of include used by make... GNU
thecking for style of include used by make... GNU
thecking for gcc potion to accept IsO C89... none needed
thecking for gcc potion to accept IsO C89... none needed
thecking for gcc ption to accept IsO C89... none needed
thecking for gcc ption to accept IsO C89... none needed
thecking for gcc ption to accept IsO C89... none needed
```

19. Compile and install plugins sudo chkconfig --add nagios sudo

chkconfig nagios on

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

systemetl start nagios

```
lec2-user8ip-172-31-80-22 nagios-plugins-2.3.3}$ sudo chkconfig --add nagios
hudo chkconfig nagios on
hudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
sudo systemctl start nagios
herror 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.
Nagios Core 4.4.6
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2020-04-28
License: GPL
Neebsite: https://www.nagios.org
Reading configuration data...
Read main config file okay...
Read object config files okay...
Read object config files okay...
Checked 8 services.
Checked 1 hosts.
Checked 1 hosts.
Checked 1 hosts.
```

20. Check the status of Nagios

```
nings look okay - No serious problems were detected during the pre-flight check
se2-user8ip-172-31-45-178 nagios-plugins-2.3.3]$ sudo systemctl status nagios
nagios.service - Nagios core 4.4.6

Loaded: loaded (/nat/lib/nyatem/nyatem/nagios.service: enabled; preset: disabled)
Active: active (running) since Wed 2024-10-02 05:37:36 UTC; 14s ago
Docs: https://www.nyaios.acg/dyscumeptation
Process: 67990 ExcestartPre-vasyrlocal/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
Process: 67991 ExcestartPre-vasyrlocal/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
Process: 67991 ExcestartPre-vasyrlocal/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
Process: 67992 (nagios)
Tasks: 6 (limit: 1112)
Memory: 2.0M

CPU: 16ms
CGroup: /system.slice/nagios.service
-67992 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67993 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67994 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67995 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67995 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67995 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
-67997 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
```

23. Open up your browser and look for <a href="http://<your public ip address">http://<your public ip address/nagios

