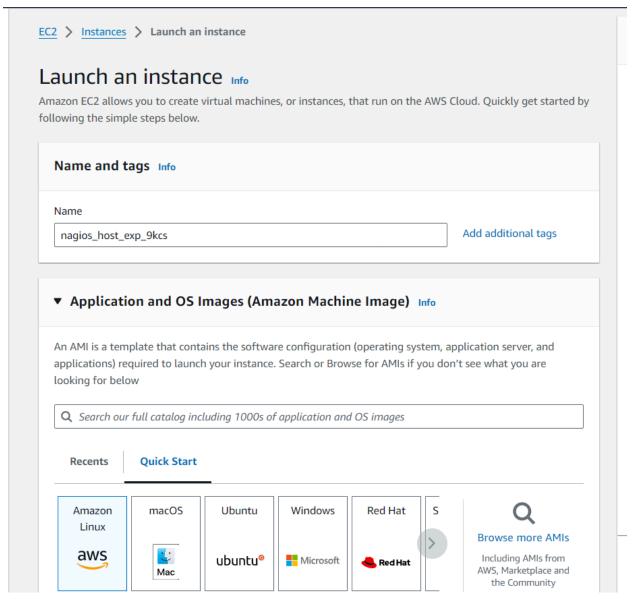
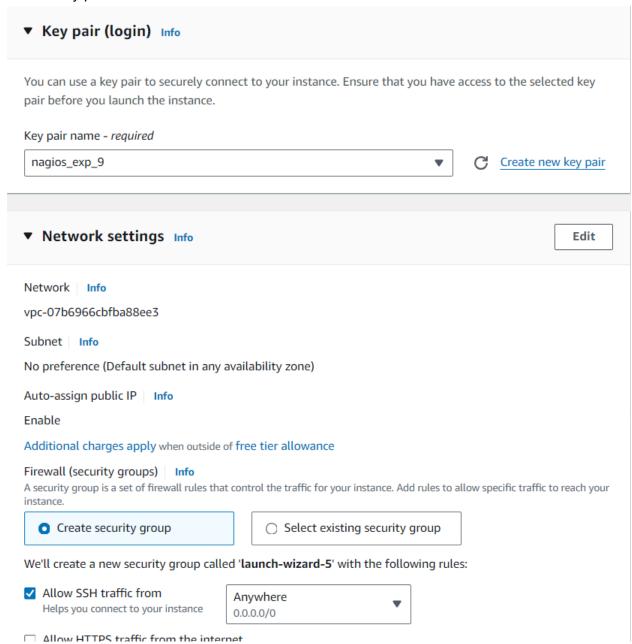
Screenshots for Experiment 9

Launch an ec2 instance Give name use the default OS



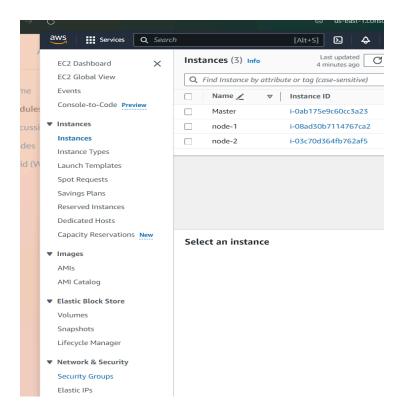
Hitesh Rohra 47 D15A Make a key pair and use it.



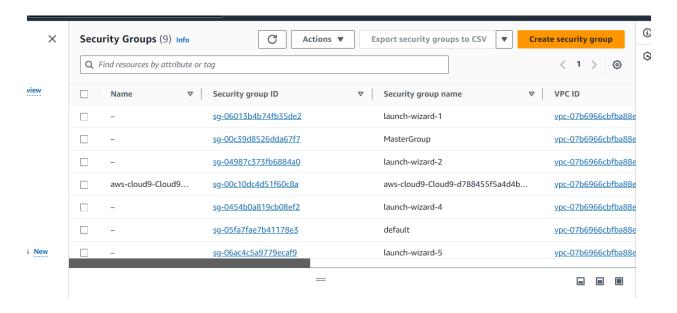
Note the name of the security group that was created for future use: here it is 'launch-wizard-5'



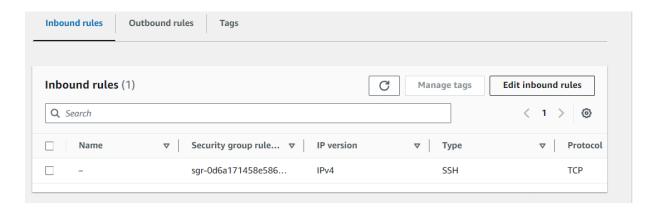
go to security groups:



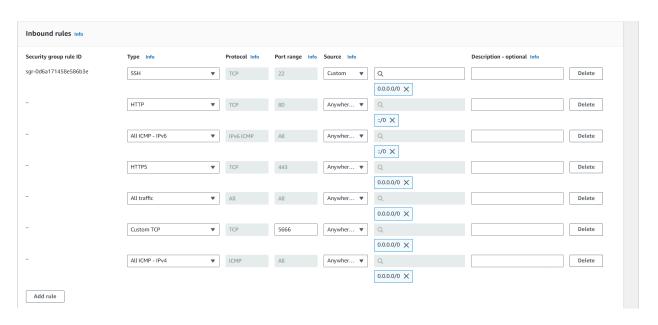
click the security group id which was created while you created the ec2 instance of this experiment.



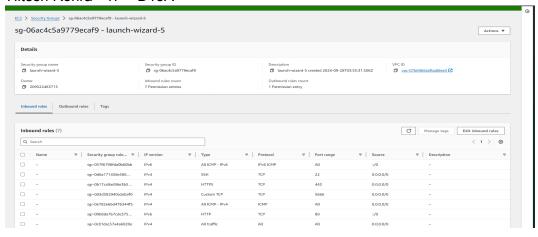
now click on edit inbound rules



now do the following configurations: by clicking "add rules"



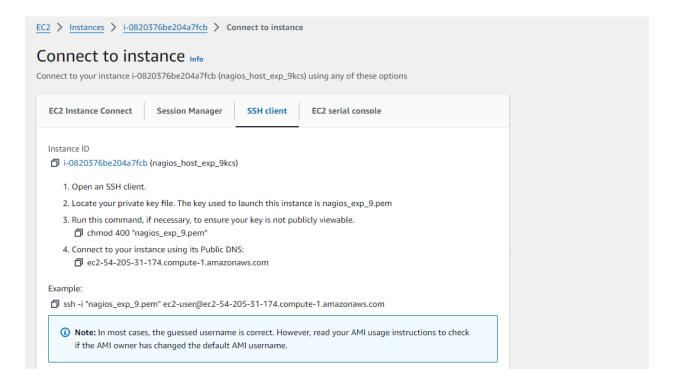
then click on save rules.



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.



paste the command in your terminal and enter after replacing the .pem file with its actual location in your system.

now paste the following commands in your connected terminal: sudo yum update

```
_/m/'
[ec2-user@ip-172-31-80-137 ~]$ sudo yum update
Last metadata expiration check: 2:21:45 ago on Sat Sep 28 03:59:04 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-80-137 ~]$ |
```

sudo yum install httpd php

```
ec2-user@ip-172-31-80-137 ~]$ sudo yum install httpd php
.ast metadata expiration check: 2:22:53 ago on Sat Sep 28 03:59:04 2024.
Dependencies resolved.
Package
                               Architecture
                                                 Version
                                                                                        Repository
[nstalling:
                                x86_64
                                                  2.4.62-1.amzn2023
                                                                                        amazonlinux
                                                                                        amazonlinux
                               x86_64
                                                  8.3.10-1.amzn2023.0.1
Installing dependencies:
                               x86_64
                                                  1.7.2-2.amzn2023.0.2
                                                                                        amazonlinux
                               x86_64
                                                  1.6.3-1.amzn2023.0.1
                                                                                        amazonlinux
                                                  18.0.0-12.amzn2023.0.3
2.4.62-1.amzn2023
2.4.62-1.amzn2023
                               noarch
                                                                                        amazonlinux
httpd-core
                                x86_64
                                                                                        amazonlinux
                               noarch
                                                                                        amazonlinux
```

(type y when prompted) sudo yum install gcc glibc glibc-common

Package	Architecture	Version	Repository
============ Installing:	============	=======================================	=======================================
gcc	x86_64	11.4.1-2.amzn2023.0.2	amazonlinux
Installing dependencies:			
annobin-docs	noarch	10.93-1.amzn2023.0.1	amazonlinux
annobin-plugin-gcc	x86_64	10.93-1.amzn2023.0.1	amazonlinux
срр	x86_64	11.4.1-2.amzn2023.0.2	amazonlinux
gc	x86_64	8.0.4-5.amzn2023.0.2	amazonlinux
glibc-devel	x86_64	2.34-52.amzn2023.0.11	amazonlinux
glibc-headers-x86	noarch	2.34-52.amzn2023.0.11	amazonlinux
guile22	x86_64	2.2.7-2.amzn2023.0.3	amazonlinux
kernel-headers	x86_64	6.1.109-118.189.amzn2023	amazonlinux
libmpc	x86_64	1.2.1-2.amzn2023.0.2	amazonlinux
libtool-ltdl	x86_64	2.4.7-1.amzn2023.0.3	amazonlinux
libxcrypt-devel	x86_64	4.4.33-7.amzn2023	amazonlinux
make	x86_64	1:4.3-5.amzn2023.0.2	amazonlinux
Transaction Summary			

sudo yum install gd gd-devel

```
google-noto-sans-v+-fonts-20201206-2.amzn2023.0.2.noarch graphite2-devel-1.3.14-7.amzn2023.0.2.x86_64 harfbuzz-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64 harfbuzz-icu-7.0.0-2.amzn2023.0.4.noarch libICE-1.0.10-6.amzn2023.0.2.x86_64 libSH1-devel-1.7.2-3.amzn2023.0.4.x86_64 libX11-cmmon-1.7.2-3.amzn2023.0.4.x86_64 libX11-cmmon-1.7.2-3.amzn2023.0.4.x86_64 libX11-cmmon-1.7.2-3.amzn2023.0.2.x86_64 libX2md-evel-3.5.15-2.amzn2023.0.3.x86_64 libXpm-devel-3.5.15-2.amzn2023.0.3.x86_64 libXpm-devel-3.4.4-1.amzn2023.0.3.x86_64 libXender-0.9.10-14.amzn2023.0.2.x86_64 libInded-evel-2.7.4-1.amzn2023.0.3.x86_64 libInded-evel-2.1.4-1.amzn2023.0.3.x86_64 libInded-evel-2.1.4-1.amzn2023.0.3.x
```

sudo adduser -m nagios sudo passwd nagios

```
Complete!
[ec2-user@ip-172-31-80-137 ~]$ sudo adduser -m nagios
sudo passwd nagios
Changing password for user nagios.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-80-137 ~]$
```

(add a password here) sudo groupadd nagcmd

```
[ec2-user@ip-172-31-80-137 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-80-137 ~]$|
```

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

```
[ec2-user@ip-172-31-80-137 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-80-137 ~]$ sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-80-137 ~]$ |
```

mkdir ~/downloads

```
[ec2-user@ip-172-31-80-137 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-80-137 downloads]$ |
```

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

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

tar zxvf nagios-4.5.5.tar.gz

```
[ec2-user@ip-172-31-80-137 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/LICENSE
nagios-4.5.5/LICENSE
nagios-4.5.5/Makefile.in
```

cd nagios-4.5.5

```
[ec2-user@ip-172-31-80-137 downloads]$ cd nagios-4.5.5
```

```
[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ sudo yum install openssl-devel
Last metadata expiration check: 2:31:25 ago on Sat Sep 28 03:59:04 2024.
Dependencies resolved.
                         Architecture
                                            Version
                                                                             Repository
Package
       _____
                            _____
Installing:
                                            1:3.0.8-1.amzn2023.0.14
                                                                                                     3.0 M
 openssl-devel
                         x86 64
                                                                             amazonlinux
Transaction Summary
                 Install 1 Package
Total download size: 3.0 M Installed size: 4.7 M Is this ok [y/N]: y
```

```
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Running transaction test
Transaction test succeeded.
Running transaction
Preparing
Installing: openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64
Running scriptlet: openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64
Verifying: openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64

Installed:
openssl-devel-1:3.0.8-1.amzn2023.0.14.x86_64

Complete!
[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ |
```

```
nagiosexp9
[ec2-user@ip-172-31-80-137 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
```

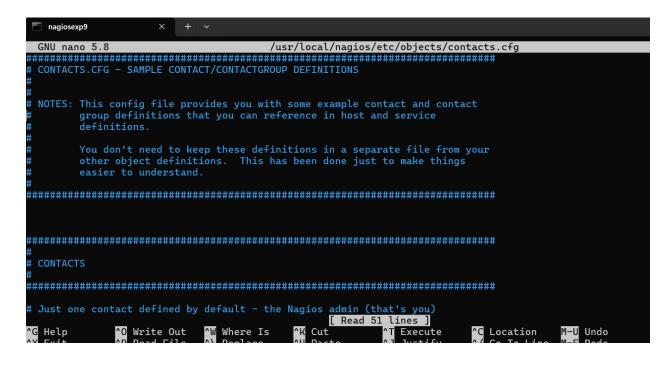
make all

```
[ec2-user@ip-172-31-80-137 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. ./lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o nagios.o ./nagio
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o broker.o broker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o nebmods.o nebmod
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o nebmods.o nebmod
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o ../common/shared.c
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o query-handler.o
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o worker
gcc -Wall -I.. -I.. -I.. -I../lib -I../include -I../include -I.. -g -02 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o workers.
```

Hitesh Rohra 47 D15A sudo make install-init sudo make install-config sudo make install-commandmode

```
[ec2-user@ip-172-31-80-137 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 nagios /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 \
```

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



navigate down to email: and change it to your email address.

```
This contact definition inherits a lot of default values from the
  'generic-contact' template which is defined elsewhere.
define contact {
                                            ; Short name of user
   contact_name
                       nagiosadmin
                       generic-contact
                                             Inherit default values from generic-contact template (define
                       Nagios Admin ; Full name of user
2022.shubham.jha@ves.ac.in ; <<***** CHANGE THIS TO YOUR EMAIL ADDRESS ******
   alias
   email
CONTACT GROUPS
            AT Execute
                                                              ^C Location
                                                                           M=U Undo
```

press Ctrl+O and then enter. then press Ctrl +X

```
chmod g+s /usr/local/nagios/var/rw

*** External command directory configured ***

[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ sudo nano /usr/local/nagios/etc/objects/contacts.cfg
[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ |
```

sudo make install-webconf

Adding password for nagios admin

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

```
[ec2-user@ip-172-31-80-137 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-172-31-80-137 nagios-4.5.5]$|
```

sudo service httpd restart

```
[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[ec2-user@ip-172-31-80-137 nagios-4.5.5]$ |
```

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

```
[ec2-user@ip-172-31-80-137 downloads]$ cd ~/downloads
car zxvf nagios-plugins-2.4.11/
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
```

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

```
nagiosexp9
[ec2-user@ip-172-31-80-137 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
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)
```

make sudo make install

sudo chkconfig --add nagios sudo chkconfig nagios on

```
[ec2-user@ip-172-31-80-137 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.
[ec2-user@ip-172-31-80-137 nagios-plugins-2.4.11]$ |
```

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

```
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.

[ec2-user@ip-172-31-80-137 nagios-plugins-2.4.11]$ sudo /usr/local/nagios/bin/nagios ¬v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.5.5

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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 1 host s.

Checked 1 host groups.

Checked 0 service groups.

Checked 1 contacts.

Checked 1 contacts.

Checked 24 commands.

Checked 5 time periods.

Checked 0 host escalations.
```

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

```
hings look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-80-137 nagios-plugins-2.4.11]$ sudo service nagios start
kedirecting to /bin/systemctl start nagios.service
[ec2-user@ip-172-31-80-137 nagios-plugins-2.4.11]$ |
```

sudo systemctl status nagios

