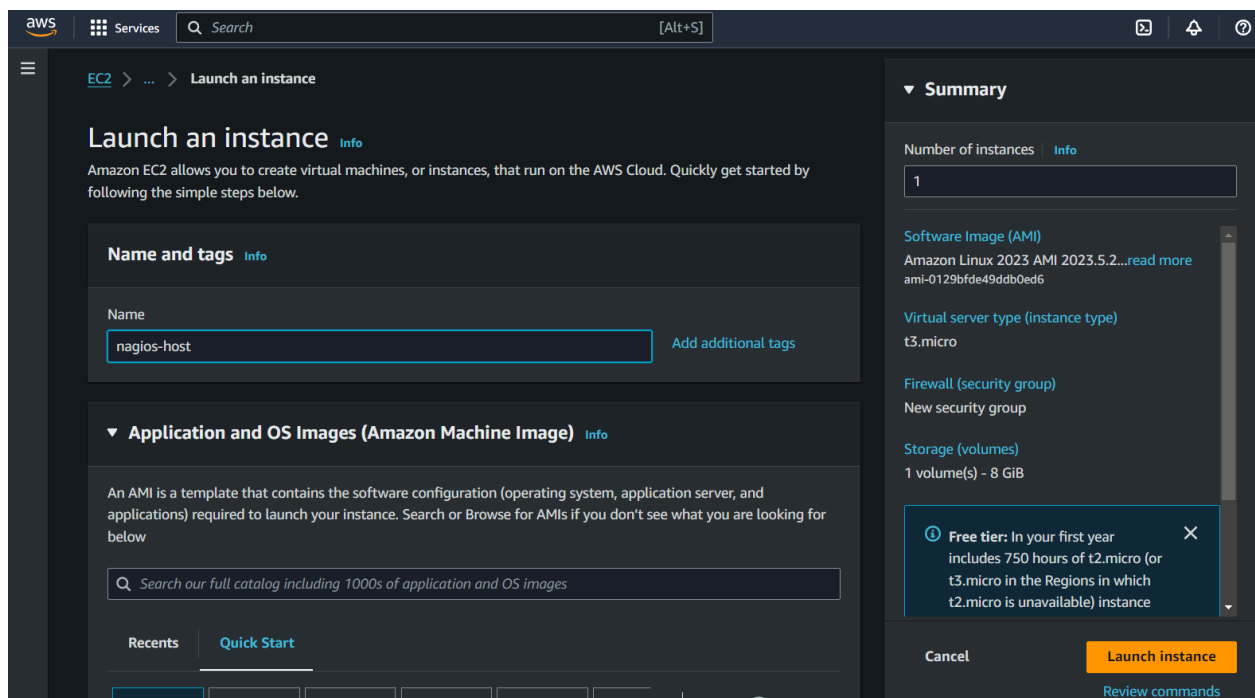


## Advance DevOps Lab 9

**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

- Name it nagios-host.



## 2. Configure Security Group

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

The screenshot displays the AWS Management Console interface for selecting an Amazon Machine Image (AMI). The top navigation bar includes 'Recents' and 'Quick Start'. Below this, a row of OS options is shown: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Li. The 'Amazon Linux' option is selected, leading to the 'Amazon Machine Image (AMI)' page.

**Amazon Machine Image (AMI)**

**Amazon Linux 2023 AMI** Free tier eligible

ami-0129bfde49ddb0ed6 (64-bit (x86), uefi-preferred) / ami-0d916634f7eb5727f (64-bit (Arm), uefi)  
Virtualization: hvm ENA enabled: true Root device type: ebs

**Description**

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Architecture	Boot mode	AMI ID	Username	
64-bit (x86)	uefi-preferred	ami-0129bfde49ddb0ed6	ec2-user	<span>Verified provider</span>

**Launch Confirmation**

EC2 > ... > Launch an instance

**Success**  
Successfully initiated launch of instance (i-02d506ceb2532ffba)

[Launch log](#)

Select the instance and under security, open security groups

Security Groups (1/1) Info

Find resources by attribute or tag

Security group name = launch-wizard-3

Clear filters

Actions

Export security groups to CSV

Create security group

<input checked="" type="checkbox"/>	Name	Security group ID	Security group name	VPC ID	Description
<input checked="" type="checkbox"/>	-	sg-06d67ab13e0550eef	launch-wizard-3	vpc-08e88c85fcc263608	launch-wizard-3

sg-06d67ab13e0550eef - launch-wizard-3

Details

Inbound rules

Outbound rules

Tags

Inbound rules (1)

Manage tags

Edit inbound rules

Search

<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range
<input type="checkbox"/>	-	sgr-03df802fcb1cda26b	IPv4	SSH	TCP	22

Services

Search

[Alt+S]

Stockholm

Mahwish

Inbound rules info

Security group rule ID

Type

Protocol

Port range

Source

Description - optional

Delete

sg-03df802fcb1cda26b	HTTPS	TCP	443	Anywhere...	0.0.0.0/0	Delete
-	All ICMP - IPv6	IPv6 ICMP	All	Anywhere...	0.0.0.0/0	Delete
-	HTTPS	TCP	443	Anywhere...	0.0.0.0/0	Delete
-	All traffic	All	All	Anywhere...	0.0.0.0/0	Delete
-	SSH	TCP	22	Anywhere...	0.0.0.0/0	Delete
-	Custom TCP	TCP	5666	Anywhere...	0.0.0.0/0	Delete
-	All ICMP - IPv4	ICMP	All	Anywhere...	0.0.0.0/0	Delete

### 3. Connect to Your EC2 Instance

- SSH into your EC2 instance or use EC2 Instance Connect from the browser

## Connect to instance Info


Connect to your instance i-02d506ceb2532ffba (nagios-host) using any of these options

EC2 Instance Connect


Session Manager

SSH client

EC2 serial console

**All ports are open to all IPv4 addresses in your security group**

All ports are currently open to all IPv4 addresses, indicated by **All** and **0.0.0.0/0** in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 13.48.4.200/30. [Learn more](#).

Instance ID  
 i-02d506ceb2532ffba (nagios-host)


Connection Type

☒ **Connect using EC2 Instance Connect**

Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.

☐ **Connect using EC2 Instance Connect Endpoint**

Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

☒ **Public IPv4 address**  
 13.48.193.109

☐ **IPv6 address**  
—

Username  
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.

```
#
~\##### Amazon Linux 2023
~\#####
~\####|
~\#/ https://aws.amazon.com/linux/amazon-linux-2023
~\V~' '->
~\
~\
~\m/'
ec2-user@ip-172-31-38-129 ~]$ sudo yum update
```

4. Update Package Indices and Install Required Packages

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-172-31-38-129 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:16:40 ago on Tue Oct 1 04:26:43 2024.
Dependencies resolved.
=====
Package                                Architecture      Version           Repository        Size
-----
Installing:
httpd                                  x86_64            2.4.62-1.amzn2023 amazonlinux       48
php8.3                                x86_64            8.3.10-1.amzn2023 amazonlinux       10
Installing dependencies:
apr                                    x86_64            1.7.2-2.amzn2023 amazonlinux       129
apr-util                              x86_64            1.6.3-1.amzn2023 amazonlinux       98
generic-logos-httpd                  noarch            18.0.0-12.amzn2023 amazonlinux       19
httpd-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 amazonlinux       315
libsodium                             x86_64            1.0.19-4.amzn2023 amazonlinux       176
libxslt                               x86_64            1.1.34-5.amzn2023 amazonlinux       241
mailcap                               noarch            2.1.49-3.amzn2023 amazonlinux       33
nginx-filesystem                      noarch            1:1.24.0-1.amzn2023 amazonlinux       9.8
php8.3-cli                           x86_64            8.3.10-1.amzn2023 amazonlinux       3.7
php8.3-common                        x86_64            8.3.10-1.amzn2023 amazonlinux       737
php8.3-process                       x86_64            8.3.10-1.amzn2023 amazonlinux       45
php8.3-xml                            x86_64            8.3.10-1.amzn2023 amazonlinux       154
Installing weak dependencies:
=====
```

```
Installed:
apr-1.7.2-2.amzn2023.0.2.x86_64          apr-util-1.6.3-1.amzn2023.0.1.x86_64          apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch httpd-2.4.62-1.amzn2023.x86_64          httpd-core-2.4.62-1.amzn2023.x86_64
httpd-filesystem-2.4.62-1.amzn2023.noarch  httpd-tools-2.4.62-1.amzn2023.x86_64          libbrotli-1.0.9-4.amzn2023.0.2.x86_64
libsodium-1.0.19-4.amzn2023.x86_64          libxslt-1.1.34-5.amzn2023.0.2.x86_64          mailcap-2.1.49-3.amzn2023.0.3.noarch
mod_http2-2.0.27-1.amzn2023.0.3.x86_64      mod_lua-2.4.62-1.amzn2023.x86_64          nginx-filesystem-1:1.24.0-1.amzn2023.0.4.noarch
php8.3-8.3.10-1.amzn2023.0.1.x86_64          php8.3-cli-8.3.10-1.amzn2023.0.1.x86_64          php8.3-common-8.3.10-1.amzn2023.0.1.x86_64
php8.3-fpm-8.3.10-1.amzn2023.0.1.x86_64      php8.3-mbstring-8.3.10-1.amzn2023.0.1.x86_64  php8.3-opcache-8.3.10-1.amzn2023.0.1.x86_64
php8.3-pdo-8.3.10-1.amzn2023.0.1.x86_64      php8.3-process-8.3.10-1.amzn2023.0.1.x86_64  php8.3-sodium-8.3.10-1.amzn2023.0.1.x86_64
php8.3-xml-8.3.10-1.amzn2023.0.1.x86_64

Complete!
[ec2-user@ip-172-31-38-129 ~]$ sudo yum install gcc glibc glibc-common
```

```
[ec2-user@ip-172-31-38-129 ~]$ sudo yum install gcc glibc glibc-common
Last metadata expiration check: 0:20:07 ago on Tue Oct 1 04:26:43 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
glibc22                                 x86_64            2.2.7-2.amzn2023.0.3          amazonlinux       6.4 M
kernel-headers                         x86_64            6.1.109-110.189.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
```

```

Installed:
annobin-docs-10.93-1.amzn2023.0.1.noarch      annobin-plugin-gcc-10.93-1.amzn2023.0.1.x86_64      cpp-11.4.1-2.amzn2023.0.2.x86_64
gc-8.0.4-5.amzn2023.0.2.x86_64                gcc-11.4.1-2.amzn2023.0.2.x86_64                  glibc-devel-2.34-52.amzn2023.0.11.x86_64
glibc-headers-x86-2.34-52.amzn2023.0.11.noarch  guile22-2.2.7-2.amzn2023.0.3.x86_64                kernel-headers-6.1.109-118.189.amzn2023.x86_64
libmpc-1.2.1-2.amzn2023.0.2.x86_64            libtool-ltdl-2.4.7-1.amzn2023.0.3.x86_64            libxcrypt-devel-4.4.33-7.amzn2023.x86_64
make-1:4.3-5.amzn2023.0.2.x86_64

Complete!
[ec2-user@ip-172-31-38-129 ~]$

```

```

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!
[ec2-user@ip-172-31-38-129 ~]$

```

## 5. Create a New Nagios User

Commands -

```
sudo adduser -m nagios
```

```
sudo passwd nagios
```

```

[ec2-user@ip-172-31-38-129 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-38-129 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-38-129 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-38-129 ~]$

```

## 8. Create a Directory for Nagios Downloads

Commands -

```
mkdir ~/downloads
```

```
cd ~/downloads
```

## 9. Download Nagios and Plugins 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>

```
[ec2-user@ip-172-31-38-129 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
--2024-10-01 04:54:41-- http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
Resolving prdownloads.sourceforge.net (prdownloads.sourceforge.net)... 204.68.111.105
Connecting to prdownloads.sourceforge.net (prdownloads.sourceforge.net)|204.68.111.105|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: http://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]
--2024-10-01 04:54:41-- http://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
Reusing existing connection to prdownloads.sourceforge.net:80.
HTTP request sent, awaiting response... 302 Found
Location: http://altushost-swe.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1 [following]
--2024-10-01 04:54:41-- http://altushost-swe.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving altushost-swe.dl.sourceforge.net (altushost-swe.dl.sourceforge.net)... 79.142.76.130
Connecting to altushost-swe.dl.sourceforge.net (altushost-swe.dl.sourceforge.net)|79.142.76.130|:80... 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           0%[
.0.8.tar.gz                 100%[=====>] 1.72M --.-KB/s  in 0.03s

2024-10-01 04:54:42 (52.6 MB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]

[ec2-user@ip-172-31-38-129 downloads]$
```

```
[ec2-user@ip-172-31-38-129 downloads]$ wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
--2024-10-01 04:55:25-- http://nagios-plugins.org/download/nagios-plugins-2.0.3.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: 2659772 (2.5M) [application/x-gzip]
Saving to: 'nagios-plugins-2.0.3.tar.gz'

nagios-plugins-2.0.3.tar.gz  0%[
ugins-2.0.3.tar.gz          1%[>
.0.3.tar.gz                 7%[====>
.gz                          30%[=====>
                             100%[=====>] 2.54M  2.88MB/s  in 0.9s

2024-10-01 04:55:26 (2.88 MB/s) - 'nagios-plugins-2.0.3.tar.gz' saved [2659772/2659772]

[ec2-user@ip-172-31-38-129 downloads]$
```

## 10. Extract the Nagios Source File

Commands -

tar xzvf nagios-4.4.6.tar.gz

cd nagios-4.4.6

## 11. Run the Configuration Script

Commands -

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

```
[ec2-user@ip-172-31-38-129 downloads]$ ls
nagios-4.0.8  nagios-4.0.8.tar.gz  nagios-plugins-2.0.3.tar.gz
[ec2-user@ip-172-31-38-129 downloads]$ cd nagios-4.0.8
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ ./configure --with-command-group=nagcmd
checking for a BSD-compatible install... /usr/bin/install -c
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86_64-unknown-linux-gnu
checking for gcc... gcc
checking for C compiler default output file name... a.out
checking whether the C compiler works... yes
checking whether we are cross compiling... no
checking for suffix of executables...
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 make sets $(MAKE)... yes
checking for strip... /usr/bin/strip
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 ANSI C header files... yes
checking whether time.h and sys/time.h may both be included... yes
checking for sys/wait.h that is POSIX.1 compatible... yes
checking for sys/types.h... yes
checking for sys/stat.h... yes
```

## 12. Compile the Source Code

```
*** Configuration summary for nagios 4.0.8 08-12-2014 ***:

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:          ${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-172-31-38-129 nagios-4.0.8]$
```

## 13. Install Binaries, Init Script, and Sample Config Files



## Commands -

`./sudo make install`

`sudo make install-init`

`sudo make install-config`

`sudo make install-commandmode`

```
*** Init script installed ***

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo make install-config
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc/objects
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/nagios.cfg /usr/local/nagios/etc/nagios.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.cfg /usr/local/nagios/etc/cgi.cfg
/usr/bin/install -c -b -m 660 -o nagios -g nagios sample-config/resource.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/templates.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/contacts.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/timeperiods.cfg /usr/local/nagios/etc/objects/timeperiods.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/localhost.cfg /usr/local/nagios/etc/objects/localhost.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/windows.cfg /usr/local/nagios/etc/objects/windows.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/printer.cfg /usr/local/nagios/etc/objects/printer.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/switch.cfg /usr/local/nagios/etc/objects/switch.cfg

*** 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.

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo make install-commandmode
/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 ***

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$
```

## 14. Edit the Config File to Change the Email Address

Commands - `sudo nano /usr/local/nagios/etc/objects/contacts.cfg`

```
GNU nano 2.9.6 /usr/local/nagios/etc/objects/contacts.cfg Modified
# 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           mahvishsiddiqui169@gmail.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.

^G Help      ^O Write Out  ^W Where Is   ^X Cut        ^T Execute    ^C Location   ^U Undo       ^M Set Mark   ^_ To Bracket  ^P Previous
^X Exit      ^R Read File  ^\ Replace    ^V Paste      ^J Justify    ^/ Go To Line ^E Redo       ^G Copy       ^N Where Was  ^N Next
```

## 15. Configure the Web Interface

Commands - sudo make install-webconf

```
*** 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.

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo make install-commandmode
/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 ***

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/obj
ects/contacts.cfg
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/obj
ects/contacts.cfg
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.
conf

*** Nagios/Apache conf file installed ***

[ec2-user@ip-172-31-38-129 nagios-4.0.8]$
```

## 16. Create a Nagios Admin Account

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

```
[ec2-user@ip-172-31-38-129 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
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ cd ~/downloads
[ec2-user@ip-172-31-38-129 downloads]$
```

ERROR:

```
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo chkconfig --add nagios
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo chkconfig nagios on
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.0.8
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 08-12-2014
License: GPL

Website: http://www.nagios.org
Reading configuration data...
Error in configuration file '/usr/local/nagios/etc/nagios.cfg' - Line 452 (Check result path '/usr/local/nagios/var/spool/checkresults' is not a valid directory)
Error processing main config file!
```

To resolve this issue, run these commands

```
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo mkdir -p /usr/local/nagios/var/spool/checkresults sudo mkdir -p /usr/local/nagios/var/spool/checkresults
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo chown -R nagios:nagcmd /usr/local/nagios/var sudo chown -R nagios:nagcmd /usr/local/nagios/var
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

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Last Modified: 08-12-2014
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Website: http://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
```

17. `cd ~/downloads`

`tar xzvf nagios-plugins-2.0.3.tar.gz`

`cd nagios-plugins-2.0.3`

```
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo service nagios start
Reloading systemd: [ OK ]
Starting nagios (via systemctl): [ OK ]
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$
```

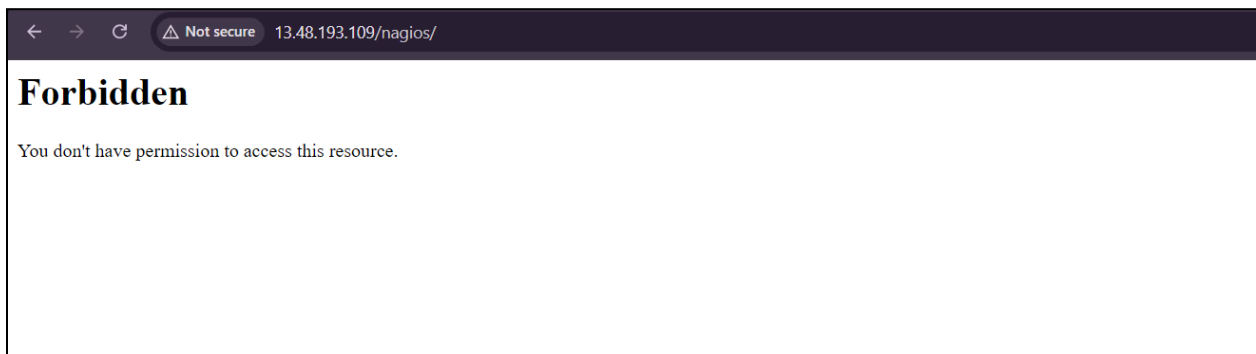
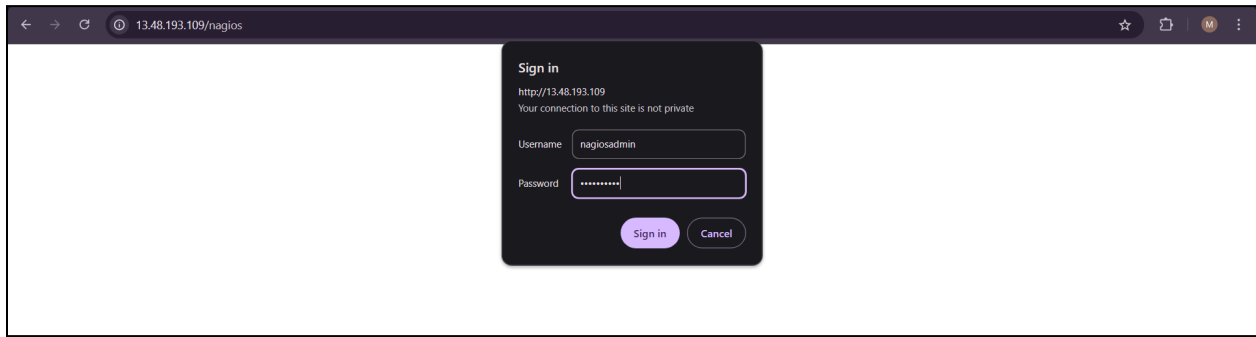
18. `sudo systemctl status nagios`

```
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$ sudo systemctl status nagios
● nagios.service - LSB: Starts and stops the Nagios monitoring server
   Loaded: loaded (/etc/rc.d/init.d/nagios; generated)
   Active: active (running) since Tue 2024-10-01 05:25:28 UTC; 49s ago
     Docs: man:systemd-sysv-generator(8)
  Process: 67388 ExecStart=/etc/rc.d/init.d/nagios start (code=exited, status=0/SUCCESS)
    Tasks: 6 (limit: 1059)
   Memory: 2.1M
      CPU: 76ms
   CGroup: /system.slice/nagios.service
           └─67426 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             └─67430 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               └─67431 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                 └─67432 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─67433 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                     └─67474 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: nerd: Channel hostchecks registered successfully
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: nerd: Channel servicechecks registered successfully
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: nerd: Channel opathchecks registered successfully
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: nerd: Fully initialized and ready to rock!
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: wproc: Successfully registered manager as @wproc with query handler
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: wproc: Registry request: name=Core Worker 67432;pid=67432
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: wproc: Registry request: name=Core Worker 67431;pid=67431
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: wproc: Registry request: name=Core Worker 67430;pid=67430
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: wproc: Registry request: name=Core Worker 67433;pid=67433
Oct 01 05:25:28 ip-172-31-38-129.eu-north-1.compute.internal nagios[67426]: Successfully launched command file worker with pid 67474
[ec2-user@ip-172-31-38-129 nagios-plugins-2.0.3]$
```

## Access Nagios Web Interface

- Copy the Public IP address of your EC2 instance.
- Open your browser and navigate to `http://<your_public_ip_address>/nagios`.
- Enter the username `nagiosadmin` and the password you set earlier



To resolve this issue, run theses commands

```
cd /home/ec2-user/downloads/nagios-4.4.8 # Adjust the path if necessary
sudo yum install openssl-devel -y
sudo yum install httpd gcc glibc glibc-common perl php gcc-c++ make wget -y
sudo yum install php-mysqldb -y
```

```
Complete!
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$ sudo yum install php-mysqldb -y
Last metadata expiration check: 1:20:57 ago on Tue Oct 1 04:26:43 2024.
Package php8.3-mysqldb-8.3.10-1.amzn2023.0.1.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-38-129 nagios-4.0.8]$
```

./configure

make all

sudo make install

sudo make install-init

sudo make install-config

sudo make install-commandmode

Again run:

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

sudo systemctl status nagios

```
[ec2-user@ip-172-31-38-129 nagios-plugins-2.3.3]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.4.6
   Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
   Active: active (running) since Tue 2024-10-01 07:20:13 UTC; 19min ago
     Docs: https://www.nagios.org/documentation
    Tasks: 6 (limit: 1059)
   Memory: 4.0M
      CPU: 383ms
   CGroup: /system.slice/nagios.service
           └─1628 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             └─1633 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               └─1634 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                 └─1635 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─1636 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                     └─1637 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

oct 01 07:20:13 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: Registry request: name=Core Worker 1635;pid=1635
oct 01 07:20:13 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: Successfully launched command file worker with pid 1637
oct 01 07:22:05 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: SERVICE ALERT: localhost;HTTP;CRITICAL;HARD;4;connect to address 127.0.0.1 and port 80
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: SERVICE NOTIFICATION: nagiosadmin;localhost;Swap Usage;CRITICAL;notify-service-by-email
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: NOTIFY job 2 from worker Core Worker 1636 is a non-check helper but exited with
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: host=localhost; service=Swap Usage; contact=nagiosadmin
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: early timeout=0; exited ok=1; wait status=32512; error code=0;
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: stderr line 01: /bin/sh: line 1: /bin/mail: No such file or directory
oct 01 07:24:35 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: wproc: stderr line 02: /usr/bin/printf: write error: Broken pipe
oct 01 07:37:05 ip-172-31-38-129.eu-north-1.compute.internal nagios[1628]: SERVICE ALERT: localhost;HTTP;WARNING;HARD;4;HTTP WARNING: HTTP/1.1 403 Forbidden - 31
lines 1-25/25 (END)
```

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