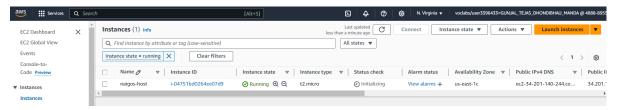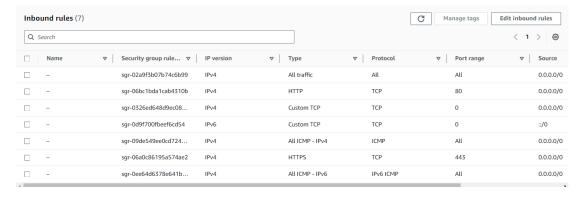# EXPERIMENT NO :- 09

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

☐ Create an Amazon Linux EC2 instance and name it as nagios-host

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

☐ Connect to your EC2 instance via the connect option available in EC2 instances menu. After that command prompt will be started.

☐ Update and install the required packages

sudo yum install httpd php

```
[ec2-user@ip-172-31-46-179 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:07:53 ago on Sun Oct  6 15:35:40 2024.
Dependencies resolved.
================================================================================================================================
 Package                    Architecture        Version                          Repository                                   S
================================================================================================================================
Installing:
 httpd                      x86_64              2.4.62-1.amzn2023                amazonlinux                                  4
 php8.3                     x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  1
Installing dependencies:
 apr                        x86_64              1.7.2-2.amzn2023.0.2             amazonlinux                                  12
 apr-util                   x86_64              1.6.3-1.amzn2023.0.1             amazonlinux                                  9
 generic-logos-httpd        noarch              18.0.0-12.amzn2023.0.3          amazonlinux                                  1
 httpd-core                 x86_64              2.4.62-1.amzn2023                amazonlinux                                  1.
 httpd-filesystem           noarch              2.4.62-1.amzn2023                amazonlinux                                  1
 httpd-tools                x86_64              2.4.62-1.amzn2023                amazonlinux                                  8
 libbrotli                  x86_64              1.0.9-4.amzn2023.0.2             amazonlinux                                  31
 libsodium                  x86_64              1.0.19-4.amzn2023                amazonlinux                                  17
 libxslt                    x86_64              1.1.34-5.amzn2023.0.2            amazonlinux                                  24
 mailcap                    noarch              2.1.49-3.amzn2023.0.3            amazonlinux                                  3
 nginx-filesystem           noarch              1:1.24.0-1.amzn2023.0.4         amazonlinux                                  9.
 php8.3-cli                 x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  3.
 php8.3-common              x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  73
 php8.3-process             x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  4
 php8.3-xml                 x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  15
Installing weak dependencies:
 apr-util-openssl           x86_64              1.6.3-1.amzn2023.0.1             amazonlinux                                  1
 mod_http2                  x86_64              2.0.27-1.amzn2023.0.3            amazonlinux                                  16
 mod_lua                    x86_64              2.4.62-1.amzn2023                amazonlinux                                  6
 php8.3-fpm                 x86_64              8.3.10-1.amzn2023.0.1            amazonlinux                                  1.
```

sudo yum install gcc glibc glibc-common

```
[ec2-user@ip-172-31-46-179 ~]$ sudo yum install gcc glibc glibc-common
Last metadata expiration check: 0:09:46 ago on Sun Oct  6 15:35:40 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                                   S
================================================================================================================================
Installing:
 gcc                        x86_64              11.4.1-2.amzn2023.0.2            amazonlinux                                  5
Installing dependencies:
 annobin-docs               noarch              10.93-1.amzn2023.0.1            amazonlinux                                  9
 annobin-plugin-gcc         x86_64              10.93-1.amzn2023.0.1            amazonlinux                                  88
 cpp                        x86_64              11.4.1-2.amzn2023.0.2            amazonlinux                                  1
 gc                         x86_64              8.0.4-5.amzn2023.0.2             amazonlinux                                  10
 glibc-devel                x86_64              2.34-52.amzn2023.0.11           amazonlinux                                  2
 glibc-headers-x86          noarch              2.34-52.amzn2023.0.11           amazonlinux                                  42
 guile22                    x86_64              2.2.7-2.amzn2023.0.3            amazonlinux                                  6.
 kernel-headers             x86_64              6.1.109-118.189.amzn2023        amazonlinux                                  1.
 libmpc                     x86_64              1.2.1-2.amzn2023.0.2            amazonlinux                                  6
 libtool-ltdl               x86_64              2.4.7-1.amzn2023.0.3            amazonlinux                                  3
 libxcrypt-devel            x86_64              4.4.33-7.amzn2023               amazonlinux                                  3
 make                       x86_64              1:4.3-5.amzn2023.0.2            amazonlinux                                  53

Transaction Summary
================================================================================================================================
Install  13 Packages

Total download size: 52 M
Installed size: 168 M
Is this ok [y/N]: y
```

sudo yum install gd gd-devel

```
[ec2-user@ip-172-31-46-179 ~]$ sudo yum install gd gd-devel
Last metadata expiration check: 0:10:57 ago on Sun Oct  6 15:35:40 2024.
Dependencies resolved.
================================================================================================================================
 Package                    Architecture        Version                          Repository                                   S
================================================================================================================================
Installing:
 gd                         x86_64              2.3.3-5.amzn2023.0.3            amazonlinux                                  13
 gd-devel                   x86_64              2.3.3-5.amzn2023.0.3            amazonlinux                                  3
Installing dependencies:
 brotli                     x86_64              1.0.9-4.amzn2023.0.2            amazonlinux                                  31
 brotli-devel               x86_64              1.0.9-4.amzn2023.0.2            amazonlinux                                  3
 bzip2-devel                x86_64              1.0.8-6.amzn2023.0.2            amazonlinux                                  21
 cairo                      x86_64              1.17.6-2.amzn2023.0.1           amazonlinux                                  68
 cmake-filesystem           x86_64              3.22.2-1.amzn2023.0.4           amazonlinux                                  1
 fontconfig                 x86_64              2.13.94-2.amzn2023.0.2          amazonlinux                                  27
 fontconfig-devel           x86_64              2.13.94-2.amzn2023.0.2          amazonlinux                                  12
 fonts-filesystem           noarch              1:2.0.5-12.amzn2023.0.2         amazonlinux                                  9.
 freetype                   x86_64              2.13.2-5.amzn2023.0.1           amazonlinux                                  42
 freetype-devel             x86_64              2.13.2-5.amzn2023.0.1           amazonlinux                                  91
 glib2-devel                x86_64              2.74.7-689.amzn2023.0.2         amazonlinux                                  48
 google-noto-fonts-common   noarch              20201206-2.amzn2023.0.2         amazonlinux                                  1
 google-noto-sans-vf-fonts  noarch              20201206-2.amzn2023.0.2         amazonlinux                                  49
 graphite2                  x86_64              1.3.14-7.amzn2023.0.2           amazonlinux                                  9
 graphite2-devel            x86_64              1.3.14-7.amzn2023.0.2           amazonlinux                                  2
 harfbuzz                   x86_64              7.0.0-2.amzn2023.0.1            amazonlinux                                  86
 harfbuzz-devel             x86_64              7.0.0-2.amzn2023.0.1            amazonlinux                                  40
 harfbuzz-icu               x86_64              7.0.0-2.amzn2023.0.1            amazonlinux                                  1
 jbigkit-libs               x86_64              2.1-21.amzn2023.0.2             amazonlinux                                  5
 langpacks-core-font-en     noarch              3.0-21.amzn2023.0.4             amazonlinux                                  1
 libICE                     x86_64              1.0.10-6.amzn2023.0.2           amazonlinux                                  7
```

```
  Verifying        : sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64                                                     58
  Verifying        : xml-common-0.6.3-56.amzn2023.0.2.noarch                                                               55
  Verifying        : xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch                                                     60
  Verifying        : xz-devel-5.2.5-9.amzn2023.0.2.x86_64                                                                  61
  Verifying        : zlib-devel-1.2.11-33.amzn2023.0.5.x86_64                                                              62

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
  libXext-1.3.4-6.amzn2023.0.2.x86_64                   libXau-1.0.9-6.amzn2023.0.2.x86_64                    libXau-devel-1.0.9-6.amzn2023.0.2.x86_64
  libXrender-0.9.10-14.amzn2023.0.2.x86_64              libXt-1.2.0-4.amzn2023.0.3.x86_64                     libXpm-3.5.15-2.amzn2023.0.3.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.amzn2023.0.2.x86_64            pcre2-utf16-10.40-1.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-172-31-46-179 ~]$
```

☐ Create a new nagios user by writing the following commands
  sudo adduser -m nagios
  sudo passwd nagios

```
[ec2-user@ip-172-31-46-179 ~]$ sudo adduser -m naigos
[ec2-user@ip-172-31-46-179 ~]$ sudo passwd naigos
Changing password for user naigos.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-46-179 ~]$
```

☐ Create a new user group using sudo groupadd nagcmd and add users to the group using the following commands

```
[ec2-user@ip-172-31-46-179 ~]$ sudo usermod -a -G nagcmd naigos
usermod: group 'nagcmd' does not exist
[ec2-user@ip-172-31-46-179 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-46-179 ~]$ sudo usermod -a -G nagcmd naigod
usermod: user 'naigod' does not exist
[ec2-user@ip-172-31-46-179 ~]$ sudo usermod -a -G nagcmd naigos
[ec2-user@ip-172-31-46-179 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-46-179 ~]$
```

☐ Create a directory for Nagios downloads using the following commands and Also download Nagios and plugin source 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

```
[ec2-user@ip-172-31-46-179 ~]$ mkdir downloads
[ec2-user@ip-172-31-46-179 ~]$ cd downloads
[ec2-user@ip-172-31-46-179 downloads]$ 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
--2024-10-06 16:03:26--  https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
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|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11333414 (11M) [application/x-gzip]
Saving to: 'nagios-4.4.6.tar.gz'

nagios-4.4.6.tar.gz            100%[===================================================>]  10.81M  11.0MB/s    in 1.0s

2024-10-06 16:03:27 (11.0 MB/s) - 'nagios-4.4.6.tar.gz' saved [11333414/11333414]

--2024-10-06 16:03:27--  https://nagios-plugins.org/download/nagios-plugins-2.3.3.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|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2782610 (2.7M) [application/x-gzip]
Saving to: 'nagios-plugins-2.3.3.tar.gz'

nagios-plugins-2.3.3.tar.gz   100%[===================================================>]   2.65M  7.08MB/s    in 0.4s

2024-10-06 16:03:28 (7.08 MB/s) - 'nagios-plugins-2.3.3.tar.gz' saved [2782610/2782610]

[ec2-user@ip-172-31-46-179 downloads]$
```

☐ Extract the nagios source file with the following commands tar zxvf nagios-4.4.6.tar.gz

```
[ec2-user@ip-172-31-46-179 downloads]$ tar zxvf nagios-4.4.6.tar.gz
nagios-4.4.6/
nagios-4.4.6/.gitignore
nagios-4.4.6/.travis.yml
nagios-4.4.6/CONTRIBUTING.md
nagios-4.4.6/Changelog
nagios-4.4.6/INSTALLING
nagios-4.4.6/LEGAL
nagios-4.4.6/LICENSE
nagios-4.4.6/Makefile.in
nagios-4.4.6/README.md
nagios-4.4.6/THANKS
nagios-4.4.6/UPGRADING
nagios-4.4.6/aclocal.m4
nagios-4.4.6/autoconf-macros/
nagios-4.4.6/autoconf-macros/.gitignore
nagios-4.4.6/autoconf-macros/CHANGELOG.md
nagios-4.4.6/autoconf-macros/LICENSE
nagios-4.4.6/autoconf-macros/LICENSE.md
nagios-4.4.6/autoconf-macros/README.md
nagios-4.4.6/autoconf-macros/add_group_user
nagios-4.4.6/autoconf-macros/ax_nagios_get_distrib
nagios-4.4.6/autoconf-macros/ax_nagios_get_files
nagios-4.4.6/autoconf-macros/ax_nagios_get_inetd
nagios-4.4.6/autoconf-macros/ax_nagios_get_init
nagios-4.4.6/autoconf-macros/ax_nagios_get_os
nagios-4.4.6/autoconf-macros/ax_nagios_get_paths
nagios-4.4.6/autoconf-macros/ax_nagios_get_ssl
nagios-4.4.6/base/
nagios-4.4.6/base/.gitignore
nagios-4.4.6/base/Makefile.in
```

☐ Listing out all the files present in the nagios directory

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ ls -l
total 704
-rw-r--r--.  1 ec2-user ec2-user   6291 Apr 28  2020 CONTRIBUTING.md
-rw-r--r--.  1 ec2-user ec2-user  32590 Apr 28  2020 Changelog
-rw-r--r--.  1 ec2-user ec2-user    422 Apr 28  2020 INSTALLING
-rw-r--r--.  1 ec2-user ec2-user    841 Apr 28  2020 LEGAL
-rw-r--r--.  1 ec2-user ec2-user  18002 Apr 28  2020 LICENSE
-rw-r--r--.  1 ec2-user ec2-user  16506 Apr 28  2020 Makefile.in
-rw-r--r--.  1 ec2-user ec2-user   3395 Apr 28  2020 README.md
-rw-r--r--.  1 ec2-user ec2-user   5832 Apr 28  2020 THANKS
-rw-r--r--.  1 ec2-user ec2-user    643 Apr 28  2020 UPGRADING
-rwxr-xr-x.  1 ec2-user ec2-user    346 Apr 28  2020 aclocal.m4
drwxr-xr-x.  2 ec2-user ec2-user  16384 Apr 28  2020 autoconf-macros
drwxr-xr-x.  2 ec2-user ec2-user  16384 Apr 28  2020 base
drwxr-xr-x.  2 ec2-user ec2-user  16384 Apr 28  2020 cgi
drwxr-xr-x.  2 ec2-user ec2-user    148 Apr 28  2020 common
-rwxr-xr-x.  1 ec2-user ec2-user  43765 Apr 28  2020 config.guess
-rwxr-xr-x.  1 ec2-user ec2-user  36345 Apr 28  2020 config.sub
-rwxr-xr-x.  1 ec2-user ec2-user 246354 Apr 28  2020 configure
-rw-r--r--.  1 ec2-user ec2-user  29812 Apr 28  2020 configure.ac
drwxr-xr-x.  5 ec2-user ec2-user  16384 Apr 28  2020 contrib
drwxr-xr-x.  2 ec2-user ec2-user    129 Apr 28  2020 docs
-rw-r--r--.  1 ec2-user ec2-user    886 Apr 28  2020 doxy.conf
-rwxr-xr-x.  1 ec2-user ec2-user   7025 Apr 28  2020 functions
drwxr-xr-x. 11 ec2-user ec2-user  16384 Apr 28  2020 html
drwxr-xr-x.  2 ec2-user ec2-user  16384 Apr 28  2020 include
-rwxr-xr-x.  1 ec2-user ec2-user     77 Apr 28  2020 indent-all.sh
-rwxr-xr-x.  1 ec2-user ec2-user    161 Apr 28  2020 indent.sh
-rwxr-xr-x.  1 ec2-user ec2-user   5869 Apr 28  2020 install-sh
drwxr-xr-x.  2 ec2-user ec2-user  16384 Apr 28  2020 lib
-rwxr-xr-x.  1 ec2-user ec2-user    461 Apr 28  2020 make-tarball
```

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

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ ./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 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 whether ln -s works... 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
checking for stdlib.h... yes
checking for string.h... yes
checking for memory.h... yes
checking for strings.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for unistd.h... yes
```

```
*** Configuration summary for nagios 4.4.6 2020-04-28 ***:

 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.

[ec2-user@ip-172-31-46-179 nagios-4.4.6]$
```

☐ Compile the source code with the following commands make all

```
inflating: dist/css/bootstrap-theme.css
inflating: dist/css/bootstrap-theme.min.css.map
inflating: dist/css/bootstrap-theme.css.map
inflating: dist/css/bootstrap.min.css
inflating: dist/css/bootstrap-theme.min.css
inflating: dist/css/bootstrap.css
mkdir -p d3
(cd d3 && unzip -u ../d3-3.5.17.zip)
Archive:  ../d3-3.5.17.zip
  inflating: bower.json
  inflating: d3.js
  inflating: d3.min.js
  inflating: LICENSE
  inflating: README.md
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/html'
if [ xyes = xyes ]; then \
        cd ./module && make; \
fi
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/module'
gcc -I.. -fPIC -g -O2 -DHAVE_CONFIG_H -o helloworld.o helloworld.c -shared
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/module'
cd ./worker && make all
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/worker'
cd ./ping && make all
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/worker/ping'
gcc -I.. -I ../../include -I ../.. -g -O2 -DHAVE_CONFIG_H -o worker-ping worker-ping.c -L ../../lib -l nagios
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/worker/ping'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/worker'

*** Compile finished ***
```

☐ Install binaries,init script and sample config files

sudo make install

```
nagios:x:1002:1003::/home/nagios:/bin/bash
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ sudo make install
cd ./base && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/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 /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-4.4.6/base'
cd ./cgi && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/cgi'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/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-4.4.6/cgi'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.4.6/cgi'
cd ./html && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/html'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/media
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/stylesheets
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/contexthelp
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/docs
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/docs/images
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/js
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/images
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/images/logos
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/includes
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/ssi
```

sudo make install-init

sudo make install-config

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ 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-172-31-46-179 nagios-4.4.6]$
```

sudo make install-commandmode

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ 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-172-31-46-179 nagios-4.4.6]$
```

☐ Edit the Config File to Change the Email Address

```
##################################################################
# CONTACTS.CFG - SAMPLE CONTACT/CONTACTGROUP DEFINITIONS
#
#
# NOTES: This config file provides you with some example contact and contact
#        group definitions that you can reference in host and service
#        definitions.
#
#        You don't need to keep these definitions in a separate file from your
#        other object definitions.  This has been done just to make things
#        easier to understand.
#
##################################################################



##################################################################
#
# CONTACTS
#
##################################################################

# 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 {
```

```
                                              [ Read 51 lines ]
^G Help           ^O Write Out      ^W Where Is      ^K Cut         ^T Execute     ^C Location     M-U Undo     M-A Set Mark    M-] To
^X Exit           ^R Read File      ^\ Replace       ^U Paste       ^J Justify     ^/ Go To Line   M-E Redo     M-6 Copy        ^Q Wher
```

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

```
##################################################################
#
# CONTACTS
#
##################################################################

# 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                   tejasgunjal021@gmail.com ; <<***** CHANGE THIS TO YOUR EMAIL ADDRESS ******
}



##################################################################
#
# CONTACT GROUPS
#
##################################################################
```

```
                                              [ Wrote 51 lines ]
^G Help           ^O Write Out      ^W Where Is      ^K Cut         ^T Execute     ^C Location     M-U Undo     M-A Set Mark
^X Exit           ^R Read File      ^\ Replace       ^U Paste       ^J Justify     ^/ Go To Line   M-E Redo     M-6 Copy
```

☐   Extract the Plugins Source File

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ cd ..
[ec2-user@ip-172-31-46-179 downloads]$ tar zxvf nagios-plugins-2.3.3.tar.gz
nagios-plugins-2.3.3/
nagios-plugins-2.3.3/perlmods/
nagios-plugins-2.3.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.3.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.3.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.in
nagios-plugins-2.3.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.am
nagios-plugins-2.3.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.3.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.3.3/perlmods/Class-Accessor-0.34.tar.gz
nagios-plugins-2.3.3/perlmods/Try-Tiny-0.18.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Implementation-0.07.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile
nagios-plugins-2.3.3/perlmods/Perl-OSType-1.003.tar.gz
nagios-plugins-2.3.3/perlmods/install_order
nagios-plugins-2.3.3/perlmods/Nagios-Plugin-0.36.tar.gz
nagios-plugins-2.3.3/perlmods/Math-Calc-Units-1.07.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Build-0.4007.tar.gz
nagios-plugins-2.3.3/ABOUT-NLS
nagios-plugins-2.3.3/configure.ac
nagios-plugins-2.3.3/Makefile.in
nagios-plugins-2.3.3/config.h.in
nagios-plugins-2.3.3/ChangeLog
nagios-plugins-2.3.3/AUTHORS
nagios-plugins-2.3.3/lib/
nagios-plugins-2.3.3/lib/parse_ini.h
```

☐   Create a Nagios Admin Account

```
[ec2-user@ip-172-31-46-179 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-172-31-46-179 nagios-4.4.6]$
```

☐   Compile and Install Plugins
    ./configure --with-nagios-user=nagios --with-nagios-group=nagios make

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ configure --with-nagios-user=nagios --with-nagios-group=nagios
make
-bash: configure: command not found
Please supply a command line argument (i.e. 'make all').  Other targets are:
   nagios cgis contrib modules workers
   test
   install                         install-base
   install-cgis                    install-html
   install-webconf                 install-config
   install-init                    install-daemoninit
   install-commandmode             install-groups-users
   install-exfoliation             install-classicui
   install-basic                   install-unstripped
   fullinstall
   clean
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$
```

☐   Start Nagios

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

```
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$ 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
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.

Nagios Core 4.4.6
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Last Modified: 2020-04-28
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.
```

```
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

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-46-179 nagios-4.4.6]$
```

☐   Verify the sample configuration files

☐ If there are no errors, you can go ahead and start Nagios and Check the status of Nagios

☐ Access Nagios Web Interface
  Copy the Public IP address of your EC2 instance.
  Open your browser and navigate to http://nagios.

☐ Enter username as nagiosadmin and password you set

☐ After sign in, this page will be displayed.
  This means that Nagios was correctly installed and configured with its plugins so far.