

# Assignment: 9

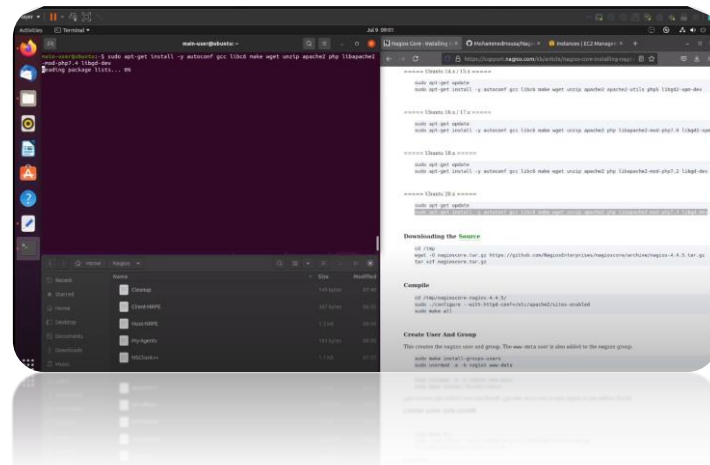
**Aim:** Installation of Nagios on Ubuntu system.

**LO mapped:** LO1, LO5

**Theory:**

Nagios: Open-source monitoring tool for real-time IT infrastructure health checks and alerts, helping ensure system reliability.

## 1. Update System Packages:



```
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
main-user@ubuntu:~$ cd /tmp
main-user@ubuntu:/tmp$
```

```
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
main-user@ubuntu:~$ cd /tmp
main-user@ubuntu:/tmp$ wget -O nagioscore.tar.gz https://github.com/NagiosEnterprises/nagioscore/archive/naglos-4.4.5.tar.gz
--2021-07-09 09:01:47-- https://github.com/NagiosEnterprises/nagioscore/archive/naglos-4.4.5.tar.gz
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)[140.82.121.4]:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/NagiosEnterprises/nagioscore/tar.gz/naglos-4.4.5 [following]
--2021-07-09 09:01:48-- https://codeload.github.com/NagiosEnterprises/nagioscore/tar.gz/naglos-4.4.5
Resolving codeload.github.com (codeload.github.com)... 140.82.121.10
Connecting to codeload.github.com (codeload.github.com)[140.82.121.10]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/x-gzip]
Saving to: 'nagioscore.tar.gz'
```

```
nagioscore.tar.gz [<=>] 0 --KB/s
```

```
us8/codeload.github.com [<=>] 0 --KB/s
```

```
main-user@ubuntu:~$ cd /tmp
```

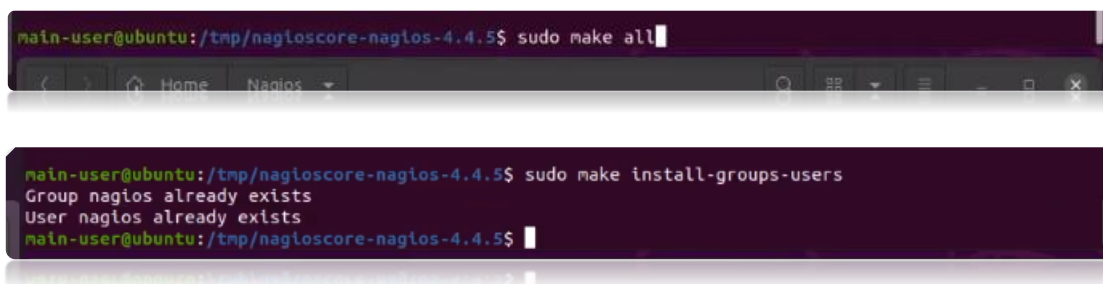
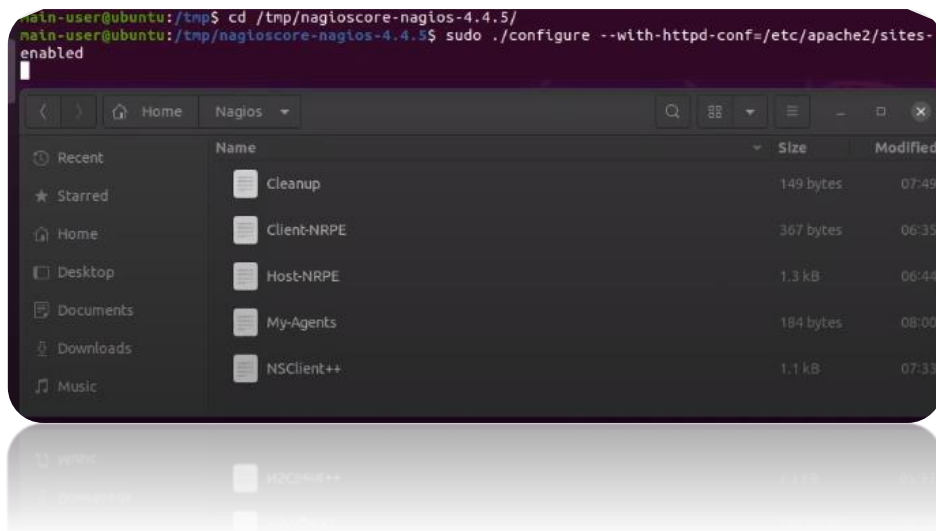
```
2021-07-09 09:01:57 (1.30 MB/s) - 'nagioscore.tar.gz' saved [11304640]
```

```
main-user@ubuntu:/tmp$ tar xzf nagioscore.tar.gz
```

```
2021-07-09 09:01:57 (1.30 MB/s) - 'nagioscore.tar.gz' saved [11304640]
```

```
main-user@ubuntu:/tmp$ tar xzf nagioscore.tar.gz
main-user@ubuntu:/tmp$ cd /tmp/nagioscore-naglos-4.4.5/
```

## 2. Install Prerequisites:



### 3. Create Nagios User and Group:

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo usermod -a -G nagios www-data
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo make install
```

### 4. Download Nagios Core:

```
make[1]: Leaving directory '/tmp/nagioscore-nagios-4.4.5'
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo make install-daemoninit
/usr/bin/install -c -m 755 -d -o root -g root /lib/systemd/system
/usr/bin/install -c -m 755 -o root -g root startup/default-service /lib/systemd/system/nagios.service
```

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo make install-commandmode
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw
```

```
*** External command directory configured ***
```

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

### 5. Compile and Install Nagios Core:

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo make install-config
```

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/apache2/sites-enabled/nagios.conf
if [ 0 -eq 1 ]; then \
    ln -s /etc/apache2/sites-enabled/nagios.conf /etc/apache2/sites-enabled/nagios.conf; \
fi
*** Nagios/Apache conf file installed ***
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

## 6. Configure Nagios Web Interface:

```
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo a2enmod rewrite
Module rewrite already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

```
Module rewrite already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo a2enmod cgi
Module cgi already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

## 7. Create a Nagios Admin User:

```
Module cgi already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users
nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

```
Adding password for user nagiosadmin
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo systemctl restart apache2.service
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$
```

```
Module rewrite already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo a2enmod cgi
Module cgi already enabled
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users
nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo systemctl restart apache2.service
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo systemctl start nagios.service
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo apt-get install -y autoconf gcc libncurses5-dev libssl-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
autoconf is already the newest version (2.69-11.1).
bc is already the newest version (1.07.1-2build1).
dc is already the newest version (1.07.1-2build1).
gawk is already the newest version (5.0.1-2build1).
gcc is already the newest version (4:9.3.0-1ubuntu2).
gettext is already the newest version (0.19.8.1-10build1).
make is already the newest version (4.2.1-1.2).
wget is already the newest version (1.20.3-1ubuntu1).
libmbedtls-dev is already the newest version (2.2.8-3.4).
libncurses5-dev is already the newest version (6.0+20191017-1).
build-essential is already the newest version (12.8ubuntu1.1).
libncurses5 is already the newest version (6.0+20191017-1).
libssl-dev is already the newest version (1:1.1.1f-1ubuntu2.4).
snmp is already the newest version (5.8.dfsg-2ubuntu2.3).
```

## 8. Start Apache Web Server:

```

main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo systemctl restart apache2.service
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo systemctl start nagios.service
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ sudo apt-get install -y autoconf gcc libnc6 libmbedtls-dev make libssl-dev wget bc gawk dc build-essential snmp libnet-snmp-perl gettext
Reading package lists... Done
Building dependency tree
Reading state information... Done
autoconf is already the newest version (2.69-11.1).
bc is already the newest version (1.07.1-2build1).
dc is already the newest version (1.07.1-2build1).
gawk is already the newest version (1:5.0.1+dfsg-1).
gcc is already the newest version (4:9.3.0-1ubuntu2).
gettext is already the newest version (0.19.8.1-10build1).
make is already the newest version (4.2.1-1.2).
wget is already the newest version (1.20.3-1ubuntu1).
libmbedtls-dev is already the newest version (2.5.8-3.4).
libnet-snmp-perl is already the newest version (6.0.1-5).
build-essential is already the newest version (12.0ubuntu1.1).
libnc6 is already the newest version (2.31-0ubuntu9.2).
libssl-dev is already the newest version (1.1.1f-1ubuntu2.4).
snmp is already the newest version (5.8+dfsg-2ubuntu2.3).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ cd /tmp/

```

```

main-user@ubuntu:/tmp/nagioscore-nagios-4.4.5$ cd /tmp/
main-user@ubuntu:/tmp$ wget --no-check-certificate -O nagios-plugins.tar.gz https://github.com/nagios-plugins/nagios-plugins/archive/release-2.2.1.tar.gz
--2021-07-09 09:08:33-- https://github.com/nagios-plugins/nagios-plugins/archive/release-2.2.1.tar.gz
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 202 Found
Location: https://codeload.github.com/nagios-plugins/nagios-plugins/tar.gz/release-2.2.1 [following]
--2021-07-09 09:08:35-- https://codeload.github.com/nagios-plugins/nagios-plugins/tar.gz/release-2.2.1
Resolving codeload.github.com (codeload.github.com)... 140.82.121.10
Connecting to codeload.github.com (codeload.github.com)|140.82.121.10|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2049050 (2.0M) [application/x-gzip]
Saving to: 'nagios-plugins.tar.gz'

nagios-plugins.tar.gz 100%[=====] 1.95M 1.17MB/s in 1.7s

2021-07-09 09:08:37 (1.17 MB/s) - 'nagios-plugins.tar.gz' saved [2049050/2049050]

main-user@ubuntu:/tmp$

```

## 9. Start Nagios Service:

```

Saving to: 'nagios-plugins.tar.gz'

nagios-plugins.tar.gz 100%[=====] 1.95M 1.17MB/s in 1.7s

2021-07-09 09:08:37 (1.17 MB/s) - 'nagios-plugins.tar.gz' saved [2049050/2049050]

main-user@ubuntu:/tmp$ tar xzf nagios-plugins.tar.gz
main-user@ubuntu:/tmp$

```

```

main-user@ubuntu:/tmp$ tar xzf nagios-plugins.tar.gz
main-user@ubuntu:/tmp$ cd /tmp/nagios-plugins-release-2.2.1/
main-user@ubuntu:/tmp/nagios-plugins-release-2.2.1$ sudo ./tools/setup
Found GNU Make at /usr/bin/make ... good.

```

## 10. Check Nagios Configuration:

```

main-user@ubuntu:/tmp/nagios-plugins-release-2.2.1$ sudo make

```

```

make[2]: Leaving directory '/tmp/nagios-plugins-release-2.2.1'
make[1]: Leaving directory '/tmp/nagios-plugins-release-2.2.1'
main-user@ubuntu:/tmp/nagios-plugins-release-2.2.1$ sudo make install

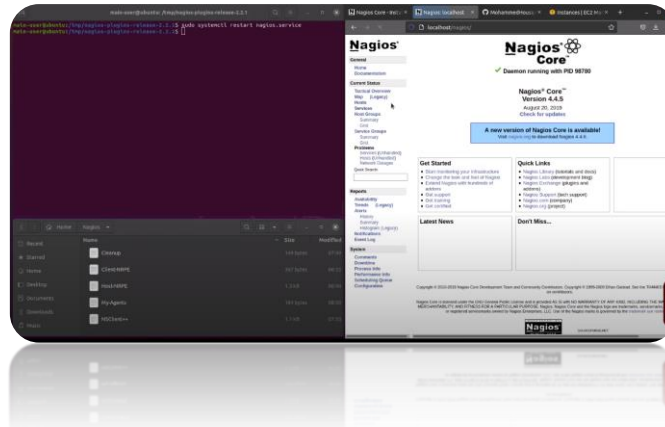
```

## 11. Restart Apache and Nagios:



```
main-user@ubuntu:/tmp/nagios-plugins-release-2.2.1$ sudo systemctl restart nagios.service
```

## 12. Access the Nagios Web Interface:



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Open a web browser and go to <http://localhost/nagios> (or the IP address of your Ubuntu server) and log in with the nagiosadmin credentials you created.

You've successfully installed and configured Nagios on your Ubuntu system. You can now begin adding hosts, services, and configuring monitoring checks through the web interface.

**Conclusion:** We installed Nagios on Ubuntu System successfully.