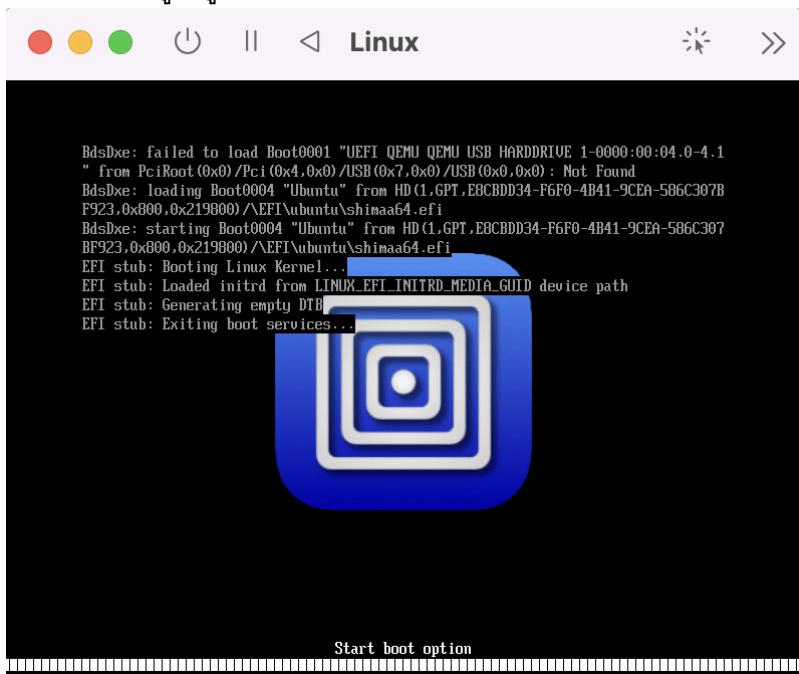


\$ sudo shutdown -r now

Login ຂະໜາດຈະຖຸກLogoutທັນທີ

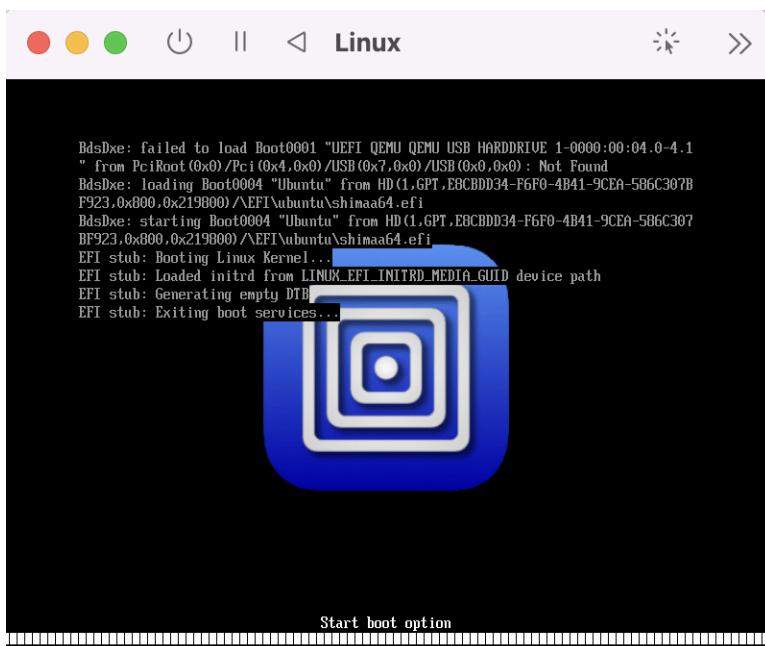


\$ sudo shutdown -r +5

ຈະlogout ກາຍໃນ5 ນາທີ

```
babyearn@babyearn:~/Desktop$ sudo shutdown -r +5
[sudo] password for babyearn:
Reboot scheduled for Tue 2024-11-05 06:31:26 UTC, use 'shutdown -c' to cancel.
```

5 ນາທີຝາມໄປ



1. สร้างไฟล์ sys\_mon.bash และจัดเก็บในไดร์รекторี Desktop

```
#!/bin/bash
echo "System Load: $(uptime)"
echo "Free Memory: $(free -h | grep Mem | awk '{print $4}')"
echo "Free Disk Space: $(df -h / | grep / | awk '{print $4}')"
```

[ ศูนย์ติดตามและแสดงผลอย่างเรียบง่าย ] => ANS แสดงให้เห็นผลการทำงานของระบบ

2. chmod +x sys\_mon.bash [ คำสั่งนี้ใช้เพื่ออะไร ? ] => ANS ทำให้สคริปต์นี้เป็น executable

3. ตั้งให้ script ทำงานทุก ๆ 10 นาที

```
babyearn@babyearn:~/Desktop$ nano sys_mon.bash
babyearn@babyearn:~/Desktop$ more sys_mon.bash
#!/bin/bash
echo "System Load: $(uptime)"
echo "Free Memory: $(free -h | grep Mem | awk '{print $4}')"
echo "Free Disk Space: $(df -h / | grep / | awk '{print $4}')"
babyearn@babyearn:~/Desktop$ chmod +x sys_mon.bash
babyearn@babyearn:~/Desktop$ pwd
/home/babyearn/Desktop
babyearn@babyearn:~/Desktop$ crontab -e
no crontab for babyearn - using an empty one
crontab: installing new crontab
babyearn@babyearn:~/Desktop$
```

```
babyearn@babyearn:~/Desktop
/tmp/crontab.5wwMZt/crontab *
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
# */10 * * * * /home/babyearn/Desktop/sys_mon.bash
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command
```

1. สร้างไฟล์ failed\_ssh.bash และจัดเก็บในไดร์ก็อฟ Desktop

```
#!/bin/bash
LOG_FILE="/var/log/auth.log"
EMAIL="your-email@example.com"
FAILED_ATTEMPTS=$(grep "Failed password" "$LOG_FILE" | wc -l)
if [ "$FAILED_ATTEMPTS" -gt 0 ]; then
    echo "There have been $FAILED_ATTEMPTS failed SSH login attempts." | mail -s "SSH Login Alert" "$EMAIL"
fi
```

[ สำคัญด้วยที่ตรวจสอบและแสดงผลอะไรบ้าง ] => ANS ตรวจสอบจำนวนครั้งของการพยายามเข้าสู่ระบบ SSH ที่ล้มเหลว และส่งอีเมลแจ้งเตือนถ้ามีการพยายามที่ล้มเหลวเกิดขึ้น

2. chmod +x failed\_ssh.bash

3. ตั้งให้ script ทำงานทุกๆ 10 นาที ใน crontab

```
* /home/korakoch/Desktop/failed_ssh.bash
```

```
babyearn@babyearn:~/Desktop$ nano failed_ssh.bash
babyearn@babyearn:~/Desktop$ more failed_ssh.bash
#!/bin/bash
LOG_FILE="/var/log/auth.log"
EMAIL="your-email@example.com"
FAILED_ATTEMPTS=$(grep "Failed password" "$LOG_FILE" | wc -l)

if [ "$FAILED_ATTEMPTS" -gt 0 ]; then
    echo "There have been ${FAILED_ATTEMPTS} failed SSH login attempts." | mail -s "SSH Login Alert" "${EMAIL}"
fi
babyearn@babyearn:~/Desktop$ chmod +x failed_ssh.bash
babyearn@babyearn:~/Desktop$ crontab -e
crontab: installing new crontab
babyearn@babyearn:~/Desktop$
```

GNU nano 7.2

```
# Edit this file to introduce tasks to be run by cron.

# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
*/10 * * * * /home/babyearn/Desktop/failed_ssh.bash
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h  dom mon dow   command
```

- Show examples of logs in your computer
  - wtmp

```
babyearn@babyearn:~/Desktop$ last
babyearn tty2          tty2          Tue Nov  5 06:48  still logged in
babyearn seat0          login screen   Tue Nov  5 06:48  still logged in
reboot  system boot  6.8.0-48-generic Tue Nov  5 06:43  still running
reboot  system boot  6.8.0-48-generic Tue Nov  5 06:41  still running
reboot  system boot  6.8.0-48-generic Tue Nov  5 06:31  still running
babyearn tty2          tty2          Tue Nov  5 06:25 - 06:31 (00:05)
babyearn seat0          login screen   Tue Nov  5 06:25 - down (00:05)
reboot  system boot  6.8.0-48-generic Tue Nov  5 06:19 - 06:31 (00:12)
reboot  system boot  6.8.0-48-generic Tue Nov  5 05:38 - 06:31 (00:53)
babyearn tty2          tty2          Tue Nov  5 04:44 - 05:38 (00:53)
babyearn seat0          login screen   Tue Nov  5 04:44 - down (00:53)
reboot  system boot  6.8.0-48-generic Tue Nov  5 04:40 - 05:38 (00:57)
babyearn tty2          tty2          Fri Nov  1 14:38 - crash (3+14:01)
babyearn seat0          login screen   Fri Nov  1 14:38 - crash (3+14:01)
reboot  system boot  6.8.0-45-generic Fri Nov  1 14:29 - 05:38 (3+15:08)
reboot  system boot  6.8.0-45-generic Wed Oct 30 07:17 - 05:38 (5+22:20)
babyearn tty2          tty2          Tue Oct 29 06:13 - crash (1+01:03)
babyearn seat0          login screen   Tue Oct 29 06:13 - crash (1+01:03)
reboot  system boot  6.8.0-45-generic Tue Oct 29 06:08 - 05:38 (6+23:29)
babyearn tty2          tty2          Tue Oct 29 05:34 - crash (00:34)
babyearn seat0          login screen   Tue Oct 29 05:34 - crash (00:34)
reboot  system boot  6.8.0-45-generic Tue Oct 29 05:30 - 05:38 (7+00:07)
reboot  system boot  6.8.0-45-generic Tue Oct 29 05:13 - 05:38 (7+00:24)
reboot  system boot  6.8.0-45-generic Tue Oct 29 04:12 - 05:38 (7+01:26)
babyearn tty2          tty2          Tue Oct 22 05:07 - crash (6+23:04)
babyearn seat0          login screen   Tue Oct 22 05:07 - crash (6+23:04)
reboot  system boot  6.8.0-45-generic Tue Oct 22 05:02 - 05:38 (14+00:35)
babyearn tty2          tty2          Tue Oct 22 04:08 - crash (00:54)
babyearn seat0          login screen   Tue Oct 22 04:08 - crash (00:54)
reboot  system boot  6.8.0-45-generic Tue Oct 22 04:02 - 05:38 (14+01:35)
reboot  system boot  6.8.0-45-generic Tue Oct 22 03:58 - 05:38 (14+01:39)
reboot  system boot  6.8.0-45-generic Tue Oct 22 03:53 - 05:38 (14+01:45)
babyearn tty2          tty2          Tue Oct 15 05:45 - crash (6+22:07)
babyearn seat0          login screen   Tue Oct 15 05:45 - crash (6+22:07)
reboot  system boot  6.8.0-45-generic Tue Oct 15 05:17 - 05:38 (21+00:20)
babyearn tty2          tty2          Tue Oct  1 05:44 - crash (13+23:33)
babyearn seat0          login screen   Tue Oct  1 05:44 - crash (13+23:33)
reboot  system boot  6.8.0-41-generic Tue Oct  1 05:40 - 05:38 (34+23:58)
reboot  system boot  6.8.0-41-generic Tue Oct  1 03:27 - 05:38 (35+02:18)
babyearn tty2          tty2          Thu Sep 26 15:28 - crash (4+11:59)
babyearn seat0          login screen   Thu Sep 26 15:28 - crash (4+11:59)
reboot  system boot  6.8.0-41-generic Thu Sep 26 15:21 - 05:38 (39+14:16)
babyearn tty2          tty2          Tue Sep 24 02:31 - crash (2+12:50)
babyearn seat0          login screen   Tue Sep 24 02:31 - crash (2+12:50)
reboot  system boot  6.8.0-41-generic Tue Sep 24 02:24 - 05:38 (42+03:13)
babyearn tty2          tty2          Tue Sep 17 14:55 - crash (6+11:29)
babyearn seat0          login screen   Tue Sep 17 14:55 - crash (6+11:29)
reboot  system boot  6.8.0-41-generic Tue Sep 17 14:51 - 05:38 (48+14:46)
babyearn tty2          tty2          Tue Sep 17 14:39 - crash (00:11)
babyearn seat0          login screen   Tue Sep 17 14:39 - crash (00:11)
reboot  system boot  6.8.0-41-generic Tue Sep 17 14:33 - 05:38 (48+15:04)
babyearn tty2          tty2          Tue Sep 17 08:36 - crash (05:56)
babyearn seat0          login screen   Tue Sep 17 08:36 - crash (05:56)
reboot  system boot  6.8.0-41-generic Tue Sep 17 08:32 - 05:38 (48+21:05)
reboot  system boot  6.8.0-41-generic Tue Sep 17 08:30 - 05:38 (48+21:08)
reboot  system boot  6.8.0-41-generic Tue Sep 17 08:27 - 05:38 (48+21:10)
babyearn tty2          tty2          Tue Sep 17 06:39 - crash (01:48)
babyearn seat0          login screen   Tue Sep 17 06:39 - crash (01:48)
reboot  system boot  6.8.0-41-generic Tue Sep 17 06:32 - 05:38 (48+23:05)
babyearn tty2          tty2          Tue Sep 17 06:26 - crash (00:06)
babyearn seat0          login screen   Tue Sep 17 06:26 - crash (00:06)
reboot  system boot  6.8.0-41-generic Tue Sep 17 06:20 - 05:38 (48+23:17)
```

```
babyearn seat0          login screen   Thu Aug  8 17:16 - crash (09:02)
reboot  system boot  6.8.0-31-generic Thu Aug  8 17:14 - 05:35 (4+12:21)
babyearn tty2          tty2          Thu Aug  8 16:58 - 17:08 (00:10)
babyearn seat0          login screen   Thu Aug  8 16:58 - down (00:10)
reboot  system boot  6.8.0-31-generic Thu Aug  8 16:45 - 17:08 (00:23)
reboot  system boot  6.8.0-31-generic Thu Aug  8 14:04 - 16:45 (02:40)
```

wtmp begins Thu Aug 8 14:04:54 2024

## • syslog

```
babyearn@babyearn:~/Desktop$ tail /var/log/syslog
2024-11-05T07:11:05.590751+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 31 with keysym 31 (keycode a).
2024-11-05T07:11:05.590762+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 36 with keysym 36 (keycode f).
2024-11-05T07:11:05.590775+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 32 with keysym 32 (keycode b).
2024-11-05T07:11:05.590798+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 38 with keysym 38 (keycode 11).
2024-11-05T07:11:05.590811+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 37 with keysym 37 (keycode 10).
2024-11-05T07:11:05.590871+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 37 with keysym 37 (keycode 10).
2024-11-05T07:11:05.590892+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 36 with keysym 36 (keycode f).
2024-11-05T07:11:05.590904+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 34 with keysym 34 (keycode d).
2024-11-05T07:11:05.590915+00:00 babyearn gnome-shell[2302]: Window manager warning: Overwriting existing binding of keysym 35 with keysym 35 (keycode e).
2024-11-05T07:11:22.534597+00:00 babyearn spice-vdagentd: invalid message size for VDAgentMonitorsConfig
babyearn@babyearn:~/Desktop$
```

## • auth.log

```
babyearn@babyearn:~/Desktop$ tail /var/log/auth.log
2024-11-05T07:09:37.286100+00:00 babyearn sudo: pam_unix(sudo:session): session closed for user root
2024-11-05T07:09:44.741729+00:00 babyearn sudo: babyearn : TTY-pts/0 ; PWD=/home/babyearn/Desktop ; USER=root ; COMMAND=/usr/bin/systemctl status rsyslog
2024-11-05T07:09:44.742556+00:00 babyearn sudo: pam_unix(sudo:session): session opened for user root(uid=0) by babyearn(uid=1000)
2024-11-05T07:09:44.765799+00:00 babyearn sudo: pam_unix(sudo:session): session closed for user root
2024-11-05T07:10:09.206598+00:00 babyearn sudo: babyearn : TTY-pts/0 ; PWD=/home/babyearn/Desktop ; USER=root ; COMMAND=/usr/bin/tail /var/log/syslog
2024-11-05T07:10:09.207439+00:00 babyearn sudo: pam_unix(sudo:session): session opened for user root(uid=0) by babyearn(uid=1000)
2024-11-05T07:10:09.225145+00:00 babyearn sudo: pam_unix(sudo:session): session closed for user root
babyearn@babyearn:~/Desktop$
```

## • ติดตั้ง Nagios ตามขั้นตอนที่ปรากฏใน Lecture Slide

### ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (1/10)

- อัปเดตระบบและชุดซอฟต์แวร์ระบบ

`$sudo apt update && apt upgrade -y`

- ติดตั้งชุดซอฟต์แวร์และไลบรารีที่จำเป็น

`$sudo apt install autoconf gcc libc6 make wget unzip apache2 apache2-utils php libgd-dev libmcrypt-dev libssl-dev bc gawk dc build-essential snmp libnet-snmp-perl gettext`

```

babyearn@babyearn:~/Desktop$ sudo apt update && apt upgrade -y
Hit:1 http://ports.ubuntu.com/ubuntu-ports noble InRelease
Hit:2 http://ports.ubuntu.com/ubuntu-ports noble-updates InRelease
Hit:3 http://ports.ubuntu.com/ubuntu-ports noble-backports InRelease
Hit:4 http://ports.ubuntu.com/ubuntu-ports noble-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
73 packages can be upgraded. Run 'apt list --upgradable' to see them.
E: Could not open lock file /var/lib/dpkg/lock-frontend - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontend), are you root?
babyearn@babyearn:~/Desktop$ sudo apt install autoconf gcc libc6 make wget unzip apache2-
apache2-utils php libgd-dev libmcrypt-dev libssl-dev bc gawk dc build-
essential snmp libnet-snmp-perl gettext
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gcc is already the newest version (4:13.2.0-7ubuntu1).
libc6 is already the newest version (2.39-0ubuntu8.3).
libc6 set to manually installed.
make is already the newest version (4.3-4.1build2).
make set to manually installed.
wget is already the newest version (1.21.4-1ubuntu4.1).
wget set to manually installed.
unzip is already the newest version (6.0-28ubuntu4.1).
unzip set to manually installed.
The following additional packages will be installed:
 apache2-bin apache2-data apache2-utils automake autotools-dev libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 m4
Suggested packages:
 apache2-doc apache2-suexec-pristine | apache2-suexec-custom autoconf-archive gnu-standards autoconf-doc libtool gettext m4-doc
The following NEW packages will be installed:
 apache2 apache2-bin apache2-data apache2-utils autoconf automake autotools-dev libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 m4
0 upgraded, 12 newly installed, 0 to remove and 73 not upgraded.
Need to get 3,070 kB of archives.
After this operation, 17.8 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 libapr1t64 arm64 1.7.2-3.1ubuntu0.1 [106 kB]
Get:2 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 libaprutil1t64 arm64 1.6.3-1.1ubuntu7 [93.9 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 libaprutil1-dbd-sqlite3 arm64 1.6.3-1.1ubuntu7 [11.2 kB]
Get:4 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 libaprutil1-ldap arm64 1.6.3-1.1ubuntu7 [9,046 B]
Get:5 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 apache2-bin arm64 2.4.58-1ubuntu8.4 [1,319 kB]
Get:6 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:7 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 apache2-utils arm64 2.4.58-1ubuntu8.4 [96.3 kB]
Get:8 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 apache2 arm64 2.4.58-1ubuntu8.4 [90.2 kB]
Get:9 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 m4 arm64 1.4.19-4build1 [240 kB]
Get:10 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 autoconf all 2.71-3 [339 kB]
Get:11 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 autotools-dev all 20220109.1 [44.9 kB]
Get:12 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 automake all 1:1.16.5-1.3ubuntu1 [558 kB]
Fetched 3,070 kB in 7s (450 kB/s)
Selecting previously unselected package libapr1t64:arm64.
(Reading database ... 242492 files and directories currently installed.)
Preparing to unpack .../00-libapr1t64_1.7.2-3.1ubuntu0.1_arm64.deb ...
Unpacking libapr1t64:arm64 (1.7.2-3.1ubuntu0.1) ...
Selecting previously unselected package libaprutil1t64:arm64.
Preparing to unpack .../01-libaprutil1t64_1.6.3-1.1ubuntu7_arm64.deb ...
Unpacking libaprutil1t64:arm64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:arm64.
Preparing to unpack .../02-libaprutil1-dbd-sqlite3_1.6.3-1.1ubuntu7_arm64.deb ...
Unpacking libaprutil1-dbd-sqlite3:arm64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package libaprutil1-ldap:arm64.
Preparing to unpack .../03-libaprutil1-ldap_1.6.3-1.1ubuntu7_arm64.deb ...
Unpacking libaprutil1-ldap:arm64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package apache2-bin.
Preparing to unpack .../04-apache2-bin_2.4.58-1ubuntu8.4_arm64.deb ...
Unpacking apache2-bin (2.4.58-1ubuntu8.4) ...
Selecting previously unselected package apache2-data.

```

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (2/10)

- เพิ่มผู้ใช้งานและกลุ่มสำหรับชุดซอฟต์แวร์ nagios

**\$sudo useradd -m -s /bin/bash nagios**

**\$sudo groupadd nagcmd**

**\$sudo usermod -a -G nagcmd nagios**

**\$sudo usermod -a -G nagcmd www-data**

```

babyearn@babyearn:~/Desktop$ sudo useradd -m -s /bin/bash nagios
babyearn@babyearn:~/Desktop$ sudo groupadd nagcmd
groupadd: group 'nagcmd' already exists
babyearn@babyearn:~/Desktop$ sudo usermod -a -G nagcmd nagios
babyearn@babyearn:~/Desktop$ sudo usermod -a -G nagcmd www-data
babyearn@babyearn:~/Desktop$
```

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (3/10)

- ดาวน์โหลดโปรแกรม nagios core ไปไว้ที่ไดเร็คทอรี /tmp

\$cd /tmp

\$wget https://tinyurl.com/44yfwyem

- Extractไฟล์

\$tar -zxvf nagios-4.5.7.tar.gz

\$cd nagios-4.5.7

```
babyearn@babyearn:/tmp$ cd /tmp
wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
--2024-11-05 07:34:58-- https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz
Resolving assets.nagios.com (assets.nagios.com)... 45.79.49.120, 2600:3c0::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  1.08MB/s   in 9.7s

2024-11-05 07:35:10 (1.11 MB/s) - 'nagios-4.4.6.tar.gz' saved [11333414/11333414]

babyearn@babyearn:/tmp$ tar -zxf 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
nagios-4.4.6/base/broker.c
nagios-4.4.6/base/checks.c
nagios-4.4.6/base/commands.c
nagios-4.4.6/base/config.c
nagios-4.4.6/base/events.c
nagios-4.4.6/base/flapping.c
nagios-4.4.6/base/logging.c
nagios-4.4.6/base/nagios.c
nagios-4.4.6/base/nagiosstats.c
nagios-4.4.6/base/nebmods.c
nagios-4.4.6/base/nerd.c
nagios-4.4.6/base/netutils.c
nagios-4.4.6/base/notifications.c
nagios-4.4.6/base/perfdata.c
nagios-4.4.6/base/query-handler.c
nagios-4.4.6/base/sehandlers.c
nagios-4.4.6/base/sretention.c
nagios-4.4.6/base/utils.c
nagios-4.4.6/base/workers.c
nagios-4.4.6/base/wp-phash.c
nagios-4.4.6/base/wpres-phash.h
```

```
nagios-4.4.6/xdata/.gitignore
nagios-4.4.6/xdata/Makefile.in
nagios-4.4.6/xdata/xcddefault.c
nagios-4.4.6/xdata/xcddefault.h
nagios-4.4.6/xdata/xodtemplate.c
nagios-4.4.6/xdata/xodtemplate.h
nagios-4.4.6/xdata/xpddefault.c
nagios-4.4.6/xdata/xpddefault.h
nagios-4.4.6/xdata/xrddefault.c
nagios-4.4.6/xdata/xrddefault.h
nagios-4.4.6/xdata/xsddefault.c
nagios-4.4.6/xdata/xsddefault.h
babyearn@babyearn:/tmp$ cd nagios-4.4.6
```

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (4/10)

- Configure และ Compile ชุดซอฟต์แวร์ Nagios

**\$./configure --with-nagios-group=nagios --with-command-group=nagcmd**  
**\$make all**

```
babyearn@babyearn:/tmp/nagios-4.4.6$ ./configure --with-nagios-group=nagios --with-command-group=nagcmd
checking for a BSD-compatible install... /usr/bin/install -c
checking build system type... aarch64-unknown-linux-gnu
checking host system type... aarch64-unknown-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
```

NOTE: If you can't get the configure script to recognize the GD libs on your system, get over it and move on to other things. The CGIs that use the GD libs are just a small part of the entire Nagios package. Get everything else working first and then revisit the problem. Make sure to check the nagios-users mailing list archives for possible solutions to GD library problems when you resume your troubleshooting.

```
*****
checking ltdl.h usability... no
checking ltdl.h presence... no
checking for ltdl.h... no
checking dlfcn.h usability... yes
checking dlfcn.h presence... yes
checking for dlfcn.h... yes
checking for dlopen in -ldl... yes
checking for extra flags needed to export symbols... -Wl,-export-dynamic
checking for linker flags for loadable modules... -shared
checking for traceroute... /usr/sbin/traceroute
checking for type va_list... yes
checking for perl... /usr/bin/perl
checking for unzip... /usr/bin/unzip
configure: creating ./config.status
config.status: creating html/index.php
config.status: creating Makefile
config.status: creating lib/Makefile
config.status: creating base/Makefile
config.status: creating common/Makefile
config.status: creating contrib/Makefile
config.status: creating cgi/Makefile
config.status: creating html/Makefile
config.status: creating module/Makefile
config.status: creating worker/Makefile
config.status: creating worker/ping/Makefile
config.status: creating xdata/Makefile
config.status: creating subst
config.status: creating pkginfo
config.status: creating startup/openrc-init
config.status: creating startup/default-init
config.status: creating startup/default-service
config.status: creating startup/upstart-init
config.status: creating t/Makefile
config.status: creating t-tap/Makefile
config.status: creating include/config.h
config.status: creating lib/snprintf.h
config.status: creating lib/iobroker.h
```

Creating sample config files in sample-config/ ...

\*\*\* 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/apache2/sites-available
    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/sbin/traceroute
```

Review the options above for accuracy. If they look okay,  
type 'make all' to compile the main program and CGIs.

```

babearn@babearn:/tmp/nagios-4.4.6$ make all
cd ./base && make
make[1]: Entering directory '/tmp/nagios-4.4.6/base'
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nagios.o nagios.c
nagios.c: In function 'main':
nagios.c:611:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  611 |             asprintf(&nc->[MACRO_PROCESSSTARTTIME], "%llu", (unsigned long long)program_start);
               ^
nagios.c:841:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  841 |             asprintf(&nc->x[MACRO_EVENTSTARTTIME], "%llu", (unsigned long long)event_start);
               ^
nagios.c: In function 'nagios_core_worker':
nagios.c:176:17: warning: ignoring return value of 'read' declared with attribute 'warn_unused_result' [-Wunused-result]
  176 |             read(sd, response + 3, sizeof(response) - 4);
               ^
nagios.c: In function 'test_path_access':
nagios.c:122:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  122 |             asprintf(&path, "%s%s", p, program);
               ^
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nebmods.o nebmods.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o ..//common/shared.o ..//common/shared.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o query-handler.o query-handler.c
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o workers.c
workers.c: In function 'handle_worker_result':
workers.c:801:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  801 |             asprintf(&error_reason, "timed out after %.2fs", tv_delta_f(&wpres.start, &wpres.stop));
               ^
workers.c:804:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  804 |             asprintf(&error_reason, "died by signal %d%#s after %.2f seconds",
               ^
               |             NTTERMSIG(wpres.wait_status),
               |
               |             NCOREDUMP(wpres.wait_status) ? "(core dumped)" : "",
               |
               |             tv_delta_f(&wpres.start, &wpres.stop));
               ^
workers.c:810:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  810 |             asprintf(&error_reason, "is a non-check helper but exited with return code %d",
               ^
               |             WEXITSTATUS(wpres.wait_status));
               |
workers.c: In function 'handle_worker_check':
workers.c:618:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  618 |             asprintf(&cr->output, "(No output on stdout) stderr: %s", wpres->outerr);
               ^
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o checks.o checks.c
checks.c: In function 'get_service_check_return_code':
checks.c:376:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  376 |             asprintf(&svc->plugin_output, "(Service check timed out after %.2lf seconds)", svc->execution_time);
               ^
checks.c:429:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  429 |             asprintf(&svvc->plugin_output, "(Return code of %d for service '%s' on host '%s' was out of bounds)",
               ^
               |             cr->return_code,
               |
               |             svc->description,
               |
               |             svc->host_name);
               |
checks.c: In function 'get_host_check_return_code':
checks.c:467:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  467 |             asprintf(&hst->plugin_output, "(Host check timed out after %.2lf seconds)", hst->execution_time);
               ^
checks.c:523:17: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  523 |             asprintf(&hst->plugin_output, "(Return code of %d for host '%s' was out of bounds)",
               ^
               |             cr->return_code,
               |
               |             hst->name);
               |
gcc -Wall -I.. -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o config.o config.c
config.c: In function 'read_main_config_file':
config.c:140:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  140 |             asprintf(&error_message, "NULL variable");
               ^
config.c:145:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  145 |             asprintf(&error_message, "malloc() error");
               ^
config.c:152:25: warning: ignoring return value of 'asprintf' declared with attribute 'warn_unused_result' [-Wunused-result]
  152 |             asprintf(&error_message, "NULL value");
               |

```

```
*** Compile finished ***

If the main program and CGIs compiled without any errors, you
can continue with testing or installing Nagios as follows (type
'make' without any arguments for a list of all possible options):

make test
    - This runs the test suite

make install
    - This installs the main program, CGIs, and HTML files

make install-init
    - This installs the init script in /lib/systemd/system

make install-daemoninit
    - This will initialize the init script
      in /lib/systemd/system

make install-groups-users
    - This adds the users and groups if they do not exist

make install-commandmode
    - This installs and configures permissions on the
      directory for holding the external command file

make install-config
    - This installs *SAMPLE* config files in /usr/local/nagios/etc
      You'll have to modify these sample files before you can
      use Nagios. Read the HTML documentation for more info
      on doing this. Pay particular attention to the docs on
      object configuration files, as they determine what/how
      things get monitored!

make install-webconf
    - This installs the Apache config file for the Nagios
      web interface

make install-exfoliation
    - This installs the Exfoliation theme for the Nagios
      web interface

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

#### \*\*\* Support Notes \*\*\*\*\*

If you have questions about configuring or running Nagios,
please make sure that you:

- Look at the sample config files
- Read the documentation on the Nagios Library at:  
<https://library.nagios.com>

before you post a question to one of the mailing lists.
Also make sure to include pertinent information that could
help others help you. This might include:

- What version of Nagios you are using
- What version of the plugins you are using
- Relevant snippets from your config files
- Relevant error messages from the Nagios log file

For more information on obtaining support for Nagios, visit:

<https://support.nagios.com>

\*\*\*\*\*

Enjoy.

babyearn@babyearn:/tmp/nagios-4.4.6\$ █

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (5/10)

- ติดตั้งชุดซอฟต์แวร์ Nagios Core และ Web interface

`$sudo make install`

`$sudo make install-commandmode`

`$sudo make install-init`

`$sudo make install-config`

`$sudo /usr/bin/install -c -m 644 sample-config/httpd.conf`

`/etc/apache2/sites-available/nagios.conf`

```
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo make install
[sudo] password for babyearn:
cd ./base && make install
make[1]: Entering directory '/tmp/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 nagios /usr/local/nagios/bin
/usr/bin/install -c -s -m 774 -o nagios -g nagios nagiosstats /usr/local/nagios/bin
make[1]: Leaving directory '/tmp/nagios-4.4.6/base'
cd ./cgi && make install
make[1]: Entering directory '/tmp/nagios-4.4.6/cgi'
make install-basic
make[2]: Entering directory '/tmp/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 '/tmp/nagios-4.4.6/cgi'
make[1]: Leaving directory '/tmp/nagios-4.4.6/cgi'
cd ./html && make install
make[1]: Entering directory '/tmp/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
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/angularjs
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/angularjs/angular-1.3.9
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/angularjs/ui-utils-0.2.3
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/bootstrap-3.3.7
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/bootstrap-3.3.7/css
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/d3
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/share/spin
/usr/bin/install -c -m 664 -o nagios -g nagios robots.txt /usr/local/nagios/share
rm -f /usr/local/nagios/share/index.html
rm -f /usr/local/nagios/share/main.html
rm -f /usr/local/nagios/share/side.html
rm -f /usr/local/nagios/share/map.html
rm -f /usr/local/nagios/share/rss/*
rm -rf /usr/local/nagios/share/include/rss
/usr/bin/install -c -m 664 -o nagios -g nagios jsonquery.html /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios graph-header.html /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios histogram.html /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios histogram-form.html /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios histogram-graph.html /usr/local/nagios/share
/usr/bin/install -c -m 664 -o nagios -g nagios histogram-links.html /usr/local/nagios/share
```

```

make[1]: Leaving directory '/tmp/nagios-4.4.6'
babyearn@babyearn:/tmp/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 ***

babyearn@babyearn:/tmp/nagios-4.4.6$ sudo make install-init
/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
babyearn@babyearn:/tmp/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 -b -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.

babyearn@babyearn:/tmp/nagios-4.4.6$ sudo /usr/bin/install -c -m 644 sample-config/httpd.conf /etc/apache2/sites-available/nagios.conf
babyearn@babyearn:/tmp/nagios-4.4.6$ 
```

### ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (6/10)

- ติดตั้งชุด Ubuntu Plugins

`$sudo apt update`

`$sudo apt install nagios-plugins`

`$sudo cp /usr/lib/nagios/plugins/* /usr/local/nagios/libexec/`

- ปรับปรุงการตั้งค่าของชุดซอฟต์แวร์ Nagios

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

`$sudo systemctl restart nagios`

`$sudo systemctl restart apache2`

```

babyearn@babyearn:/tmp/nagios-4.4.0$ sudo apt update
[sudo] password for babyearn:
Hit:1 http://ports.ubuntu.com/ubuntu-ports noble InRelease
Get:2 http://ports.ubuntu.com/ubuntu-ports noble-updates InRelease [126 kB]
Hit:3 http://ports.ubuntu.com/ubuntu-ports noble-backports InRelease
Hit:4 http://ports.ubuntu.com/ubuntu-ports noble-security InRelease
Fetched 126 kB in 5s (24.4 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
73 packages can be upgraded. Run 'apt list --upgradable' to see them.
babyearn@babyearn:/tmp/nagios-4.4.0$ sudo apt install nagios-plugins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'monitoring-plugins' instead of 'nagios-plugins'
The following additional packages will be installed:
  libdbi1t64 libmysqlclient21 libnet-snmp-perl libpq5 libradcli4 liburiparser1 monitoring-plugins-basic monitoring-plugins-common
  monitoring-plugins-standard python3-gpg python3-ldb python3-markdown python3-samba python3-talloc python3-tdb rpcbind samba-common samba-common-bin
  samba-dsdb-modules smbclient snmp
Suggested packages:
  libcrypt-des-perl libdigest-hmac-perl libio-socket-inet6-perl icinga2 nagios-plugins-contrib fping postfix | sendmail-bin | exim4-daemon-heavy
  | exim4-daemon-light qstat python-markdown-doc heimdal-clients python3-dnspython cifs-utils
The following NEW packages will be installed:
  libdbi1t64 libmysqlclient21 libnet-snmp-perl libpq5 libradcli4 liburiparser1 monitoring-plugins monitoring-plugins-basic monitoring-plugins-common
  monitoring-plugins-standard python3-gpg python3-ldb python3-markdown python3-samba python3-talloc python3-tdb rpcbind samba-common samba-common-bin
  samba-dsdb-modules smbclient snmp
0 upgraded, 22 newly installed, 0 to remove and 73 not upgraded.
Need to get 7,532 kB of archives.
After this operation, 49.4 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 rpcbind arm64 1.2.6-7ubuntu2 [46.1 kB]
Get:2 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 libdbi1t64 arm64 0.9.0-6.1build1 [25.5 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 libmysqlclient21 arm64 8.0.39-0ubuntu0.24.04.2 [1,246 kB]
Get:4 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 libnet-snmp-perl all 6.0.1-7 [86.8 kB]
Get:5 http://ports.ubuntu.com/ubuntu-ports noble-updates/main arm64 libpq5 arm64 16.4-0ubuntu0.24.04.2 [139 kB]
Get:6 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 libradcli4 arm64 1.2.11-1build3 [40.2 kB]
Get:7 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 liburiparser1 arm64 0.9.7+dfsg-2build1 [35.4 kB]
Get:8 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-gpg arm64 1.18.0-4.1ubuntu4 [206 kB]
Get:9 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-ldb arm64 2:2.8.0+samba4.19.5+dfsg-4ubuntu9 [42.4 kB]
Get:10 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-markdown all 3.5.2-1 [72.0 kB]
Get:11 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-tdb arm64 1.4.10-1build1 [15.1 kB]
Get:12 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-talloc arm64 2.4.2-2build2 [12.9 kB]
Get:13 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 python3-samba arm64 2:4.19.5+dfsg-4ubuntu9 [2,804 kB]
Get:14 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 samba-common all 2:4.19.5+dfsg-4ubuntu9 [64.1 kB]
Get:15 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 samba-common-bin arm64 2:4.19.5+dfsg-4ubuntu9 [1,269 kB]
Get:16 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 samba-dsdb-modules arm64 2:4.19.5+dfsg-4ubuntu9 [319 kB]
Get:17 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 smbclient arm64 2:4.19.5+dfsg-4ubuntu9 [488 kB]
Get:18 http://ports.ubuntu.com/ubuntu-ports noble/main arm64 snmp arm64 5.9.4+dfsg-1ubuntu3 [179 kB]
Get:19 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 monitoring-plugins-common arm64 2.3.5-1ubuntu3 [30.1 kB]
Get:20 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 monitoring-plugins-basic arm64 2.3.5-1ubuntu3 [258 kB]
Get:21 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 monitoring-plugins-standard arm64 2.3.5-1ubuntu3 [144 kB]
Get:22 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 monitoring-plugins all 2.3.5-1ubuntu3 [10.7 kB]
Fetched 7,532 kB in 15s (500 kB/s)
Selecting previously unselected package rpcbind.
(Reading database ... 243482 files and directories currently installed.)
Preparing to unpack .../00-rpcbind_1.2.6-7ubuntu2_arm64.deb ...
Unpacking rpcbind (1.2.6-7ubuntu2) ...
Selecting previously unselected package libdbi1t64:arm64.
Preparing to unpack .../01-libdbi1t64_0.9.0-6.1build1_arm64.deb ...
Unpacking libdbi1t64:arm64 (0.9.0-6.1build1) ...
Selecting previously unselected package libmysqlclient21:arm64.
Preparing to unpack .../02-libmysqlclient21_8.0.39-0ubuntu0.24.04.2_arm64.deb ...
Unpacking libmysqlclient21:arm64 (8.0.39-0ubuntu0.24.04.2) ...
Selecting previously unselected package libnet-snmp-perl.
Preparing to unpack .../03-libnet-snmp-perl_6.0.1-7_all.deb ...

```

```

babyearn@babyearn:/tmp/nagios-4.4.6$ sudo cp /usr/lib/nagios/plugins/* /usr/local/nagios/libexec/
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.4.6
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2020-04-28
License: GPL

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.
  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
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl restart nagios
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl restart apache2
babyearn@babyearn:/tmp/nagios-4.4.6$
```

### ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (7/10)

- ปรับตั้งค่า Apache web server และเปิดการใช้งานโมดูล cgi rewrite  
`$sudo ln -s /etc/apache2/sites-available/nagios.conf /etc/apache2/sites-enabled/`  
`$sudo a2enmod cgi rewrite`
- ตั้งพาสเวิร์ดสำหรับชุดซอฟต์แวร์ Nagios  
`$sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin`

```
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo ln -s /etc/apache2/sites-available/nagios.conf /etc/apache2/sites-enabled/
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo a2enmod cgi rewrite
Your MPM seems to be threaded. Selecting cgid instead of cgi.
Enabling module cgid.
Enabling module rewrite.
To activate the new configuration, you need to run:
    systemctl restart apache2
babyearn@babyearn:/tmp/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
babyearn@babyearn:/tmp/nagios-4.4.6$
```

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (8/10)

- เพิ่มบริการและใช้งานชุดซอฟต์แวร์

**\$sudo systemctl enable nagios**

**\$sudo systemctl enable apache2**

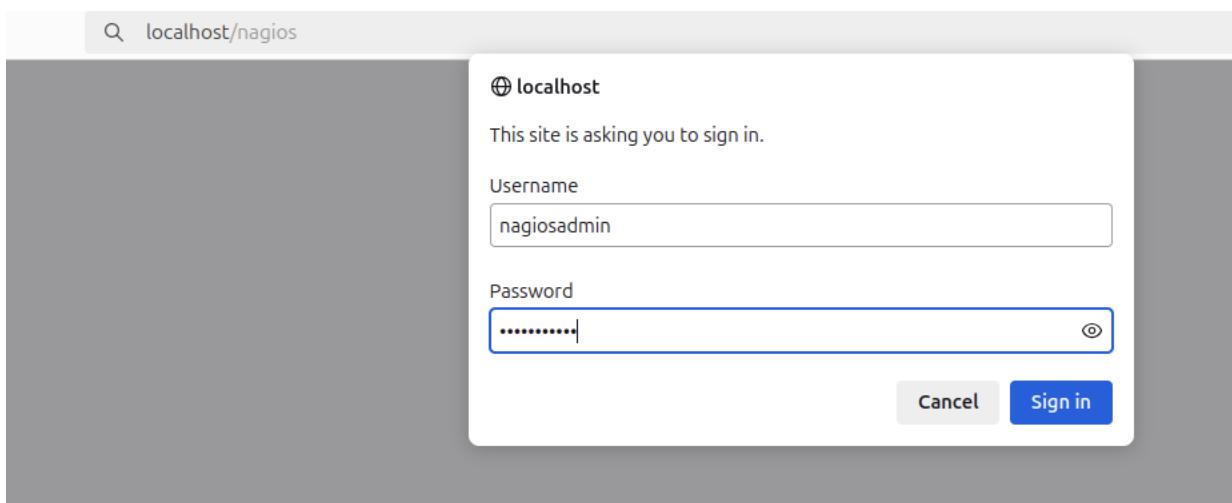
**\$sudo systemctl restart nagios**

**\$sudo systemctl restart apache2**

```
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl enable nagios
Created symlink /etc/systemd/system/multi-user.target.wants/nagios.service → /usr/lib/systemd/system/nagios.service.
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl restart nagios
babyearn@babyearn:/tmp/nagios-4.4.6$ sudo systemctl restart apache2
babyearn@babyearn:/tmp/nagios-4.4.6$
```

## ขั้นตอนการติดตั้งและปรับตั้งค่า Nagios (9/10)

- เรียกใช้งานชุดซอฟต์แวร์ได้จากเว็บбраузอร์
  - เปิดเว็บбраузอร์
  - Browse <http://localhost/nagios> [หรือ [http://IP\\_Address/nagios](http://IP_Address/nagios)]
  - Login ด้วย username: nagiosadmin และรหัสผ่านพาสเวิร์ดที่กำหนดไว้



## ขั้นตอนการติดตั้งและ ปรับตั้งค่า Nagios (10/10)

The screenshot shows the Nagios 4.5.7 dashboard at [localhost/nagios/](http://localhost/nagios/). The top navigation bar includes links for Home, Documentation, and a 'Check for updates' button. The left sidebar contains sections for General (Home, Documentation), Current Status (Tactical Overview, Map, Hosts, Services, Host Groups, Service Groups, Problems), Reports (Availability, Trends, Alerts, History, Summary, Histogram), and a search bar. The main content area displays the 'System Status' dashboard, which features a grid of host and service status icons, a 'Server Statistics' table with metrics like Load, CPU, and Memory, a 'Status Grid' showing host status (green for OK, yellow for warning, red for critical), and a 'Latest Alerts' section with one entry from '2024-03-21 14:43:37'.