Windows Computer Management

For each item below, show the results of your PC and put explanation

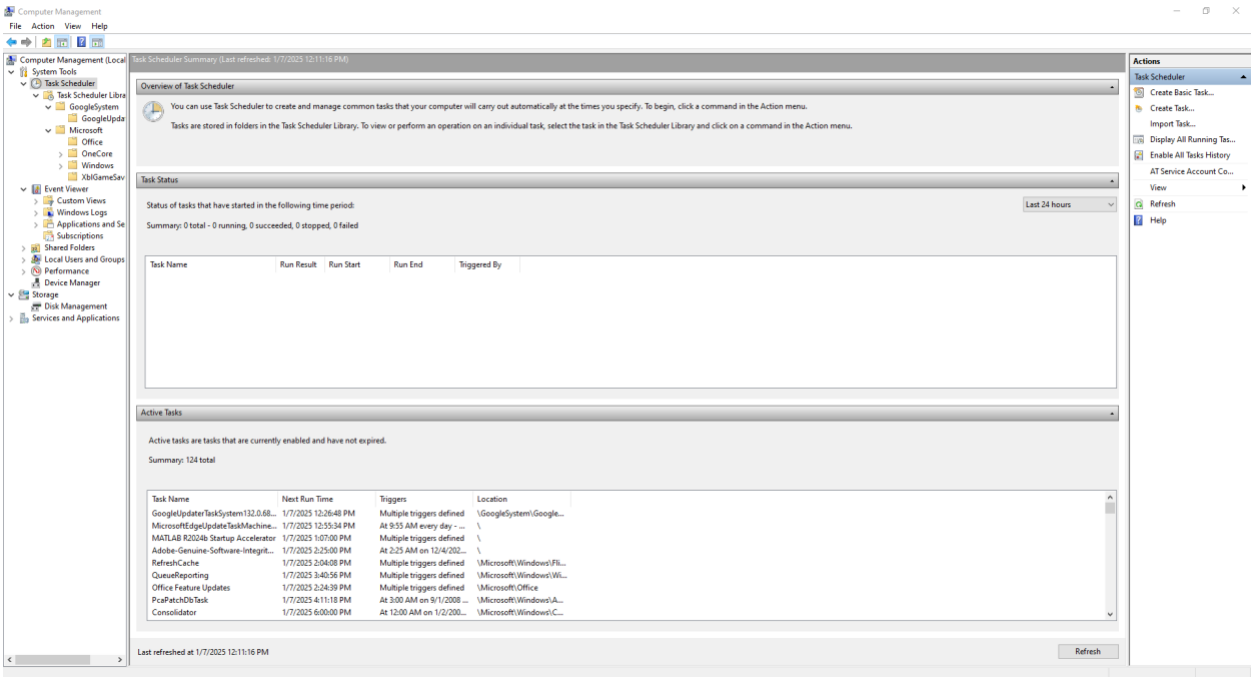
- Under System Tools, you will see
  - Task scheduler
  - Event viewer
    - Windows logs
    - App and Service logs
  - Shared Folders
  - Local users and groups
  - Performance
- Storage
- Services and Applications

Each item will be demoed !!!

Explain the information shown for each item

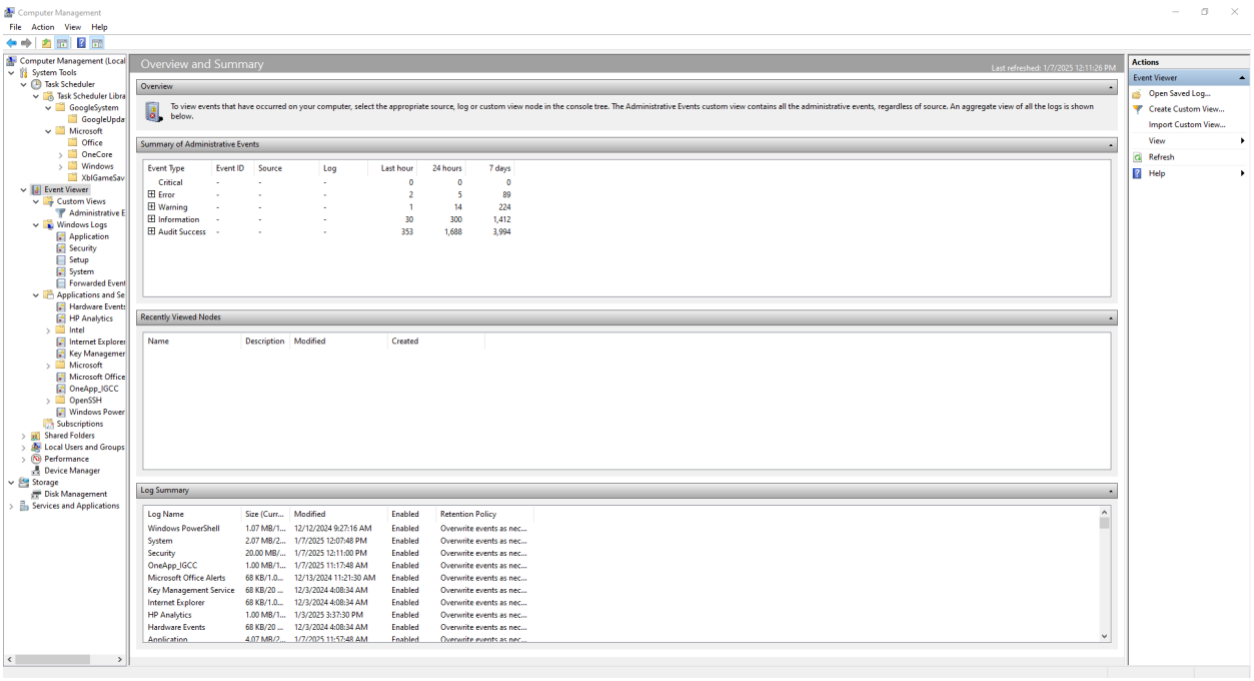
- Task Scheduler

ใช้จัดการTasks ที่กำหนดให้ระบบรันอัตโนมัติตามเงื่อนไขหรือเวลาที่ตั้งไว้

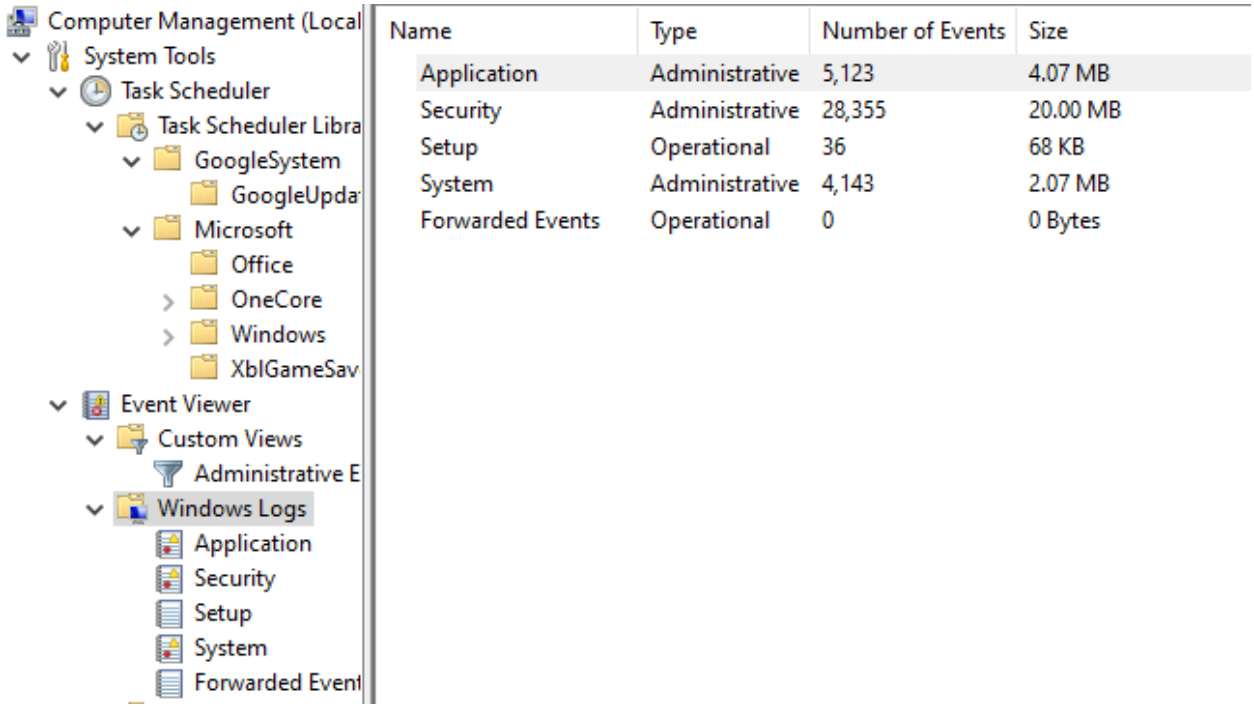


- Event Viewer

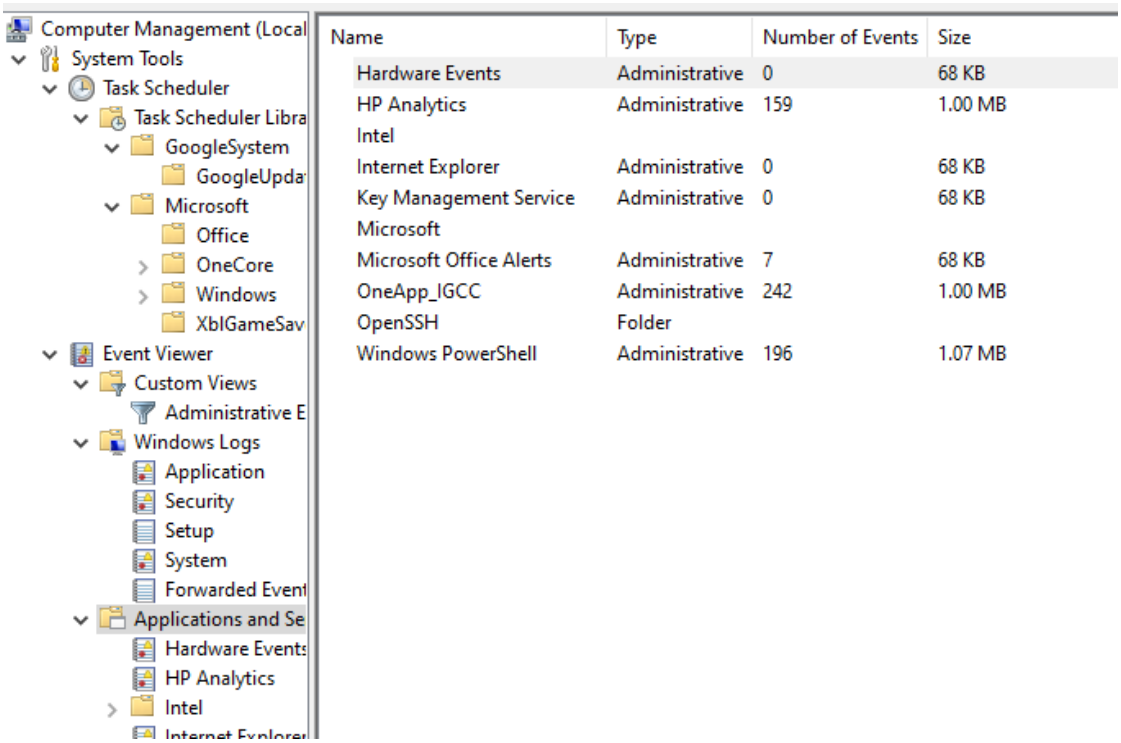
ใช้ดูรายการ Event ที่เกิดขึ้นในระบบ เช่น Error, Warning หรือ Information



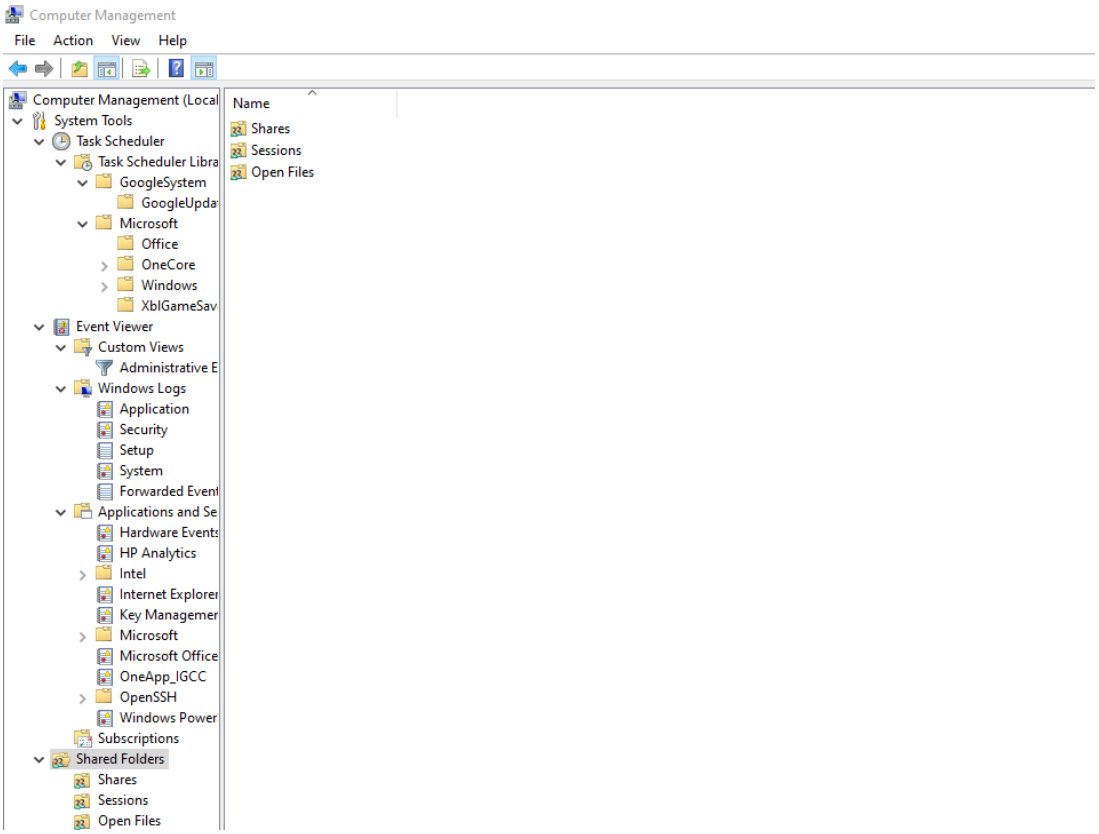
Windows logs - แสดงข้อมูลเกี่ยวกับ Application ที่รันบนระบบ



App and Service logs - Logs เฉพาะของแอปพลิเคชันหรือบริการที่ติดตั้งในระบบ

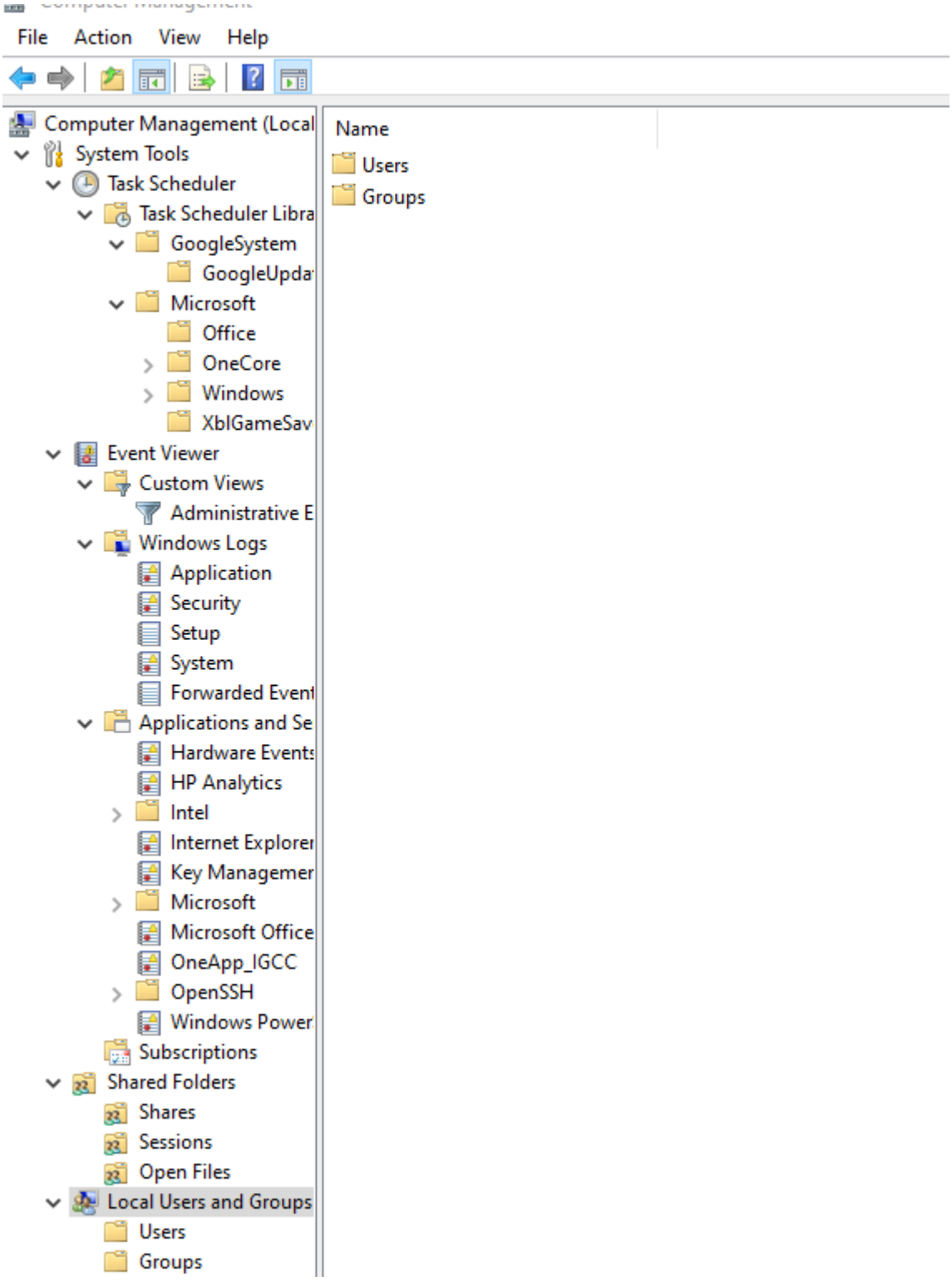


- Shared Folders จัดการโฟลเดอร์ที่แชร์ให้ผู้ใช้อื่นในเครือข่าย



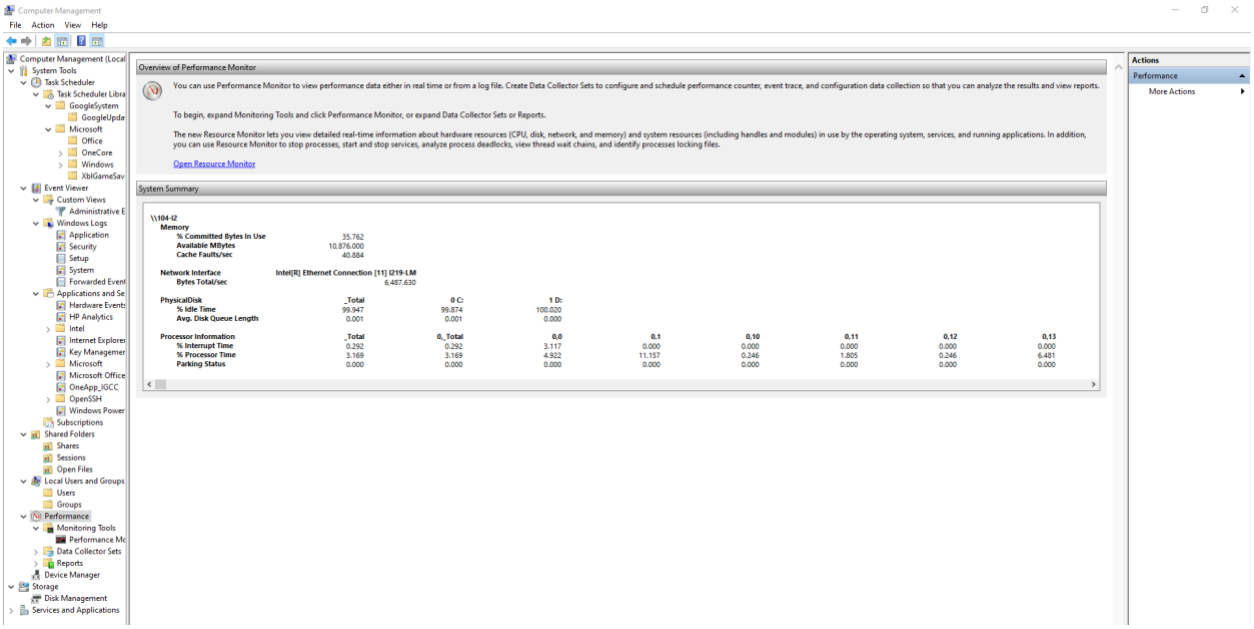
- Local Users and Groups

  จัดการUsers และ Groups ในเครื่อง



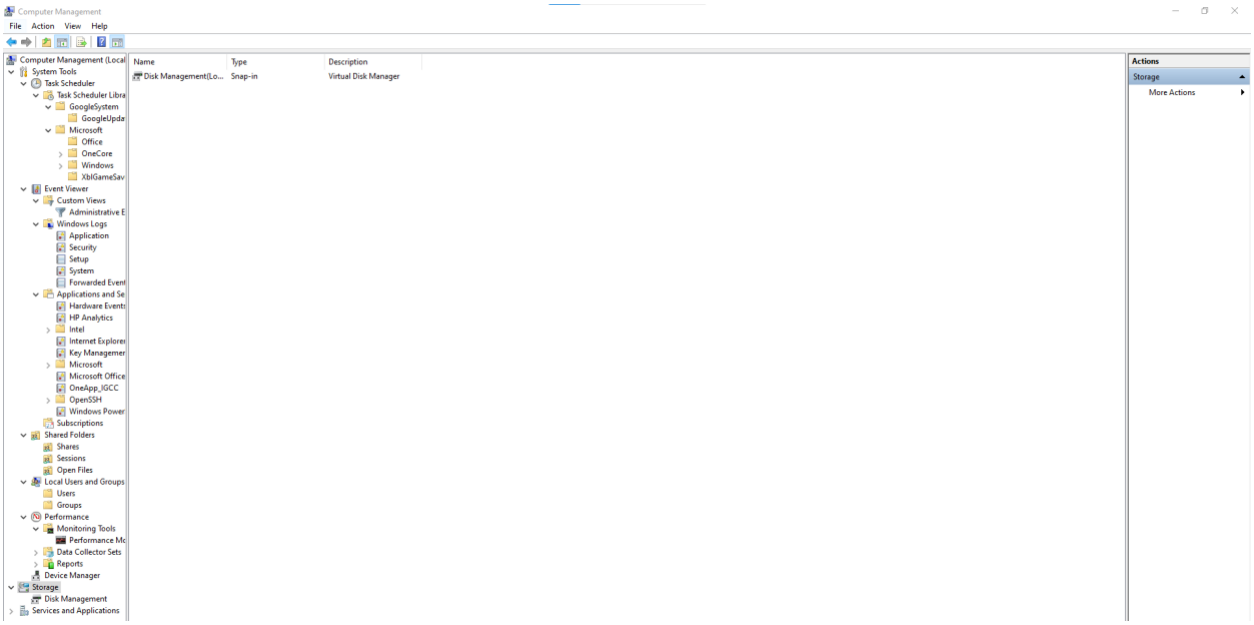
- Performance

แสดงผลการวิเคราะห์ประสิทธิภาพของระบบแบบเรียลไทม์ ใช้ตรวจสอบปัญหาประสิทธิภาพของเครื่อง



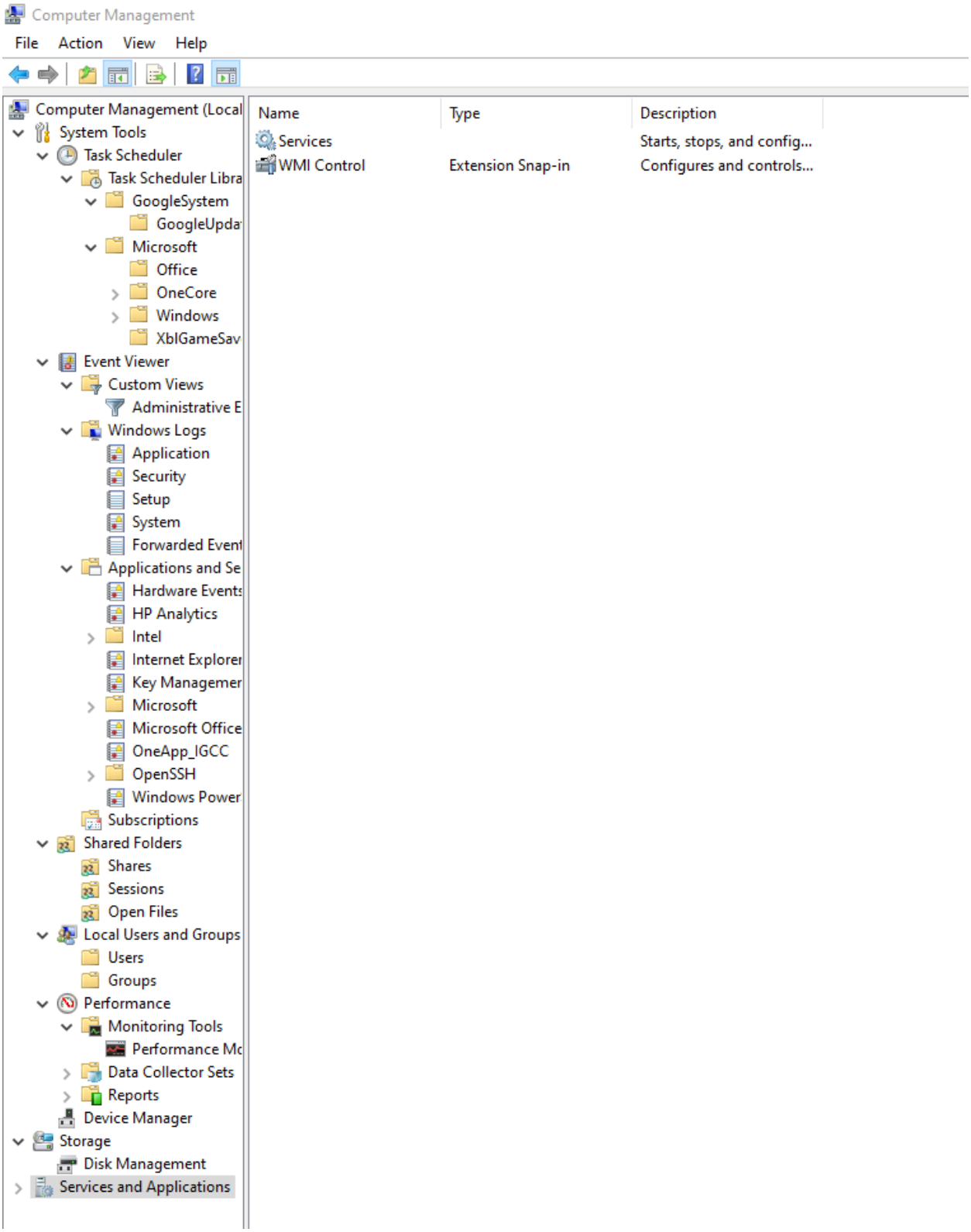
- Storage

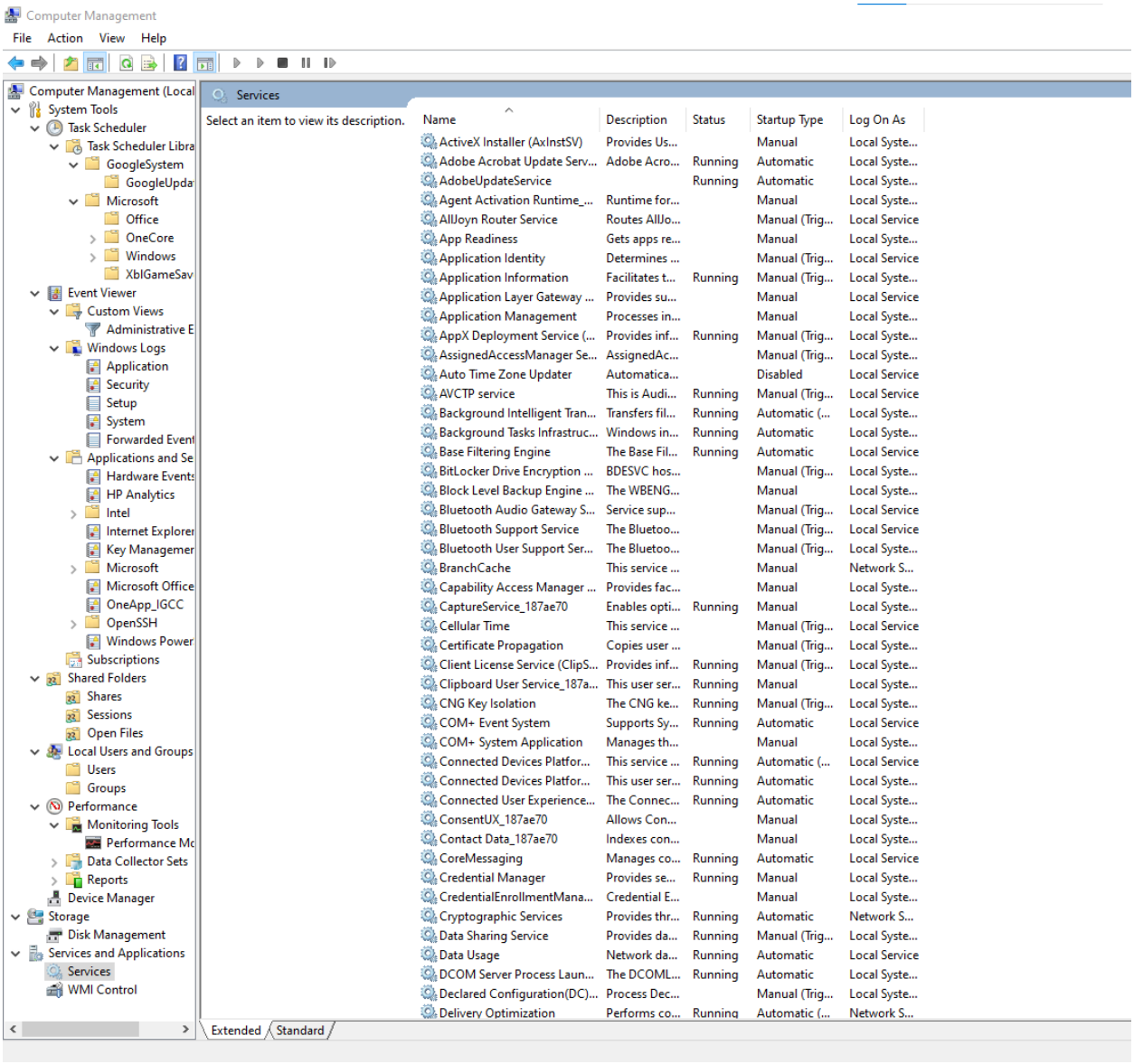
จัดการพื้นที่เก็บข้อมูลในเครื่อง

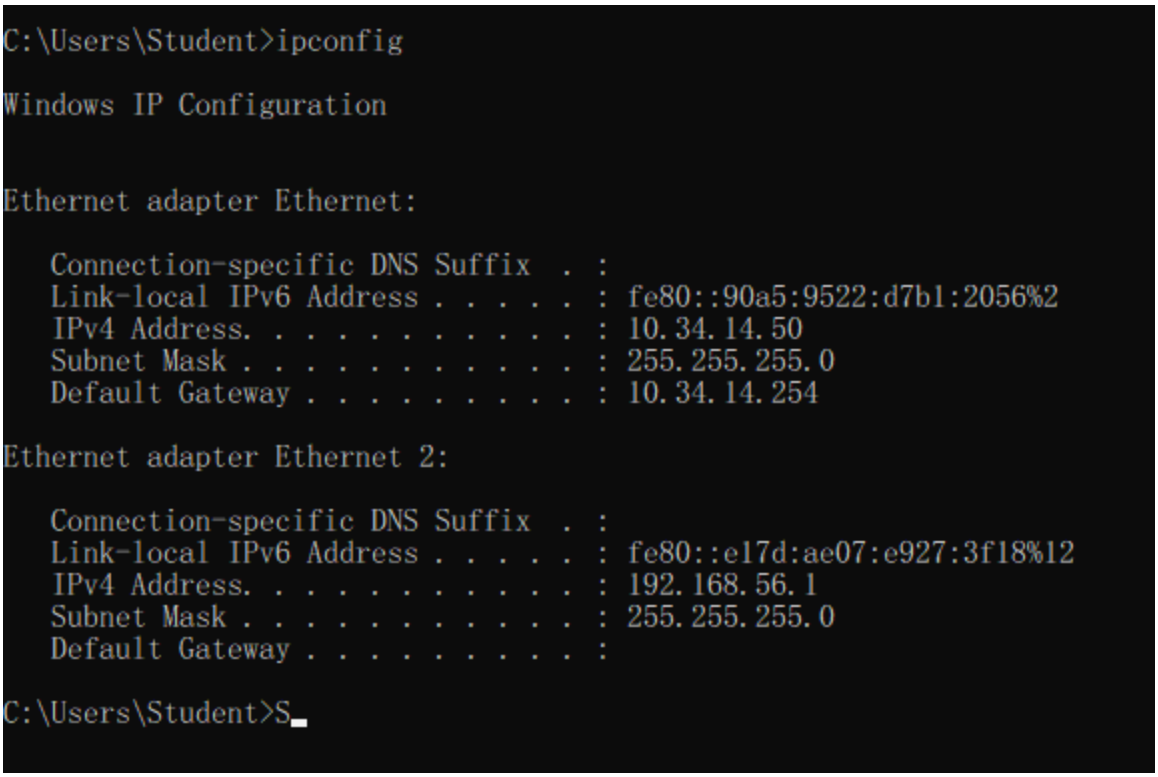


- **Services and Applications**

  จัดการ Services และ Applications ที่รันในระบบ ดูสถานะของ Service


Computer Management
File Action View Help
Computer Management (Local
System Tools
Task Scheduler
Task Scheduler Libra
GoogleSystem
GoogleUpda
Microsoft
Office
OneCore
Windows
XblGameSav
Event Viewer
Custom Views
Administrative E
Windows Logs
Application
Security
Setup
System
Forwarded Event
Applications and Se
Hardware Events
HP Analytics
Intel
Internet Explorer
Key Managemer
Microsoft
Microsoft Office
OneApp_IGCC
OpenSSH
Windows Power
Subscriptions
Shared Folders
Shares
Sessions
Open Files
Local Users and Groups
Users
Groups
Performance
Monitoring Tools
Performance Mc
Data Collector Sets
Reports
Device Manager
Storage
Disk Management
Services and Applications
Name
Type
Description
Services
Starts, stops, and config...
WMI Control
Extension Snap-in
Configures and controls...


Computer Management
File Action View Help
Computer Management (Local
System Tools
Task Scheduler
Task Scheduler Libra
GoogleSystem
GoogleUpda
Microsoft
Office
OneCore
Windows
XblGameSav
Event Viewer
Custom Views
Administrative E
Windows Logs
Application
Security
Setup
System
Forwarded Event
Applications and Se
Hardware Events
HP Analytics
Intel
Internet Explorer
Key Managemer
Microsoft
Microsoft Office
OneApp_IGCC
OpenSSH
Windows Power
Subscriptions
Shared Folders
Shares
Sessions
Open Files
Local Users and Groups
Users
Groups
Performance
Monitoring Tools
Performance Mo
Data Collector Sets
Reports
Device Manager
Storage
Disk Management
Services and Applications
Services
WMI Control
Services
Select an item to view its description.
Name
Description
Status
Startup Type
Log On As
ActiveX Installer (AxInstSV) Provides Us... Manual Local Syste...
Adobe Acrobat Update Serv... Adobe Acro... Running Automatic Local Syste...
AdobeUpdateService Running Automatic Local Syste...
Agent Activation Runtime_... Runtime for... Manual Local Syste...
AllJoyn Router Service Routes AllJo... Manual (Trig... Local Service
App Readiness Gets apps re... Manual Local Syste...
Application Identity Determines ... Manual (Trig... Local Service
Application Information Facilitates t... Running Manual (Trig... Local Syste...
Application Layer Gateway ... Provides su... Manual Local Service
Application Management Processes in... Manual Local Syste...
AppX Deployment Service (... Provides inf... Running Manual (Trig... Local Syste...
AssignedAccessManager Se... AssignedAc... Manual (Trig... Local Syste...
Auto Time Zone Updater Automatica... Disabled Local Service
AVCTP service This is Audi... Running Manual (Trig... Local Service
Background Intelligent Tran... Transfers fil... Running Automatic (... Local Syste...
Background Tasks Infrastruc... Windows in... Running Automatic Local Syste...
Base Filtering Engine The Base Fil... Running Automatic Local Service
BitLocker Drive Encryption ... BDESVC hos... Manual (Trig... Local Syste...
Block Level Backup Engine ... The WBENG... Manual Local Syste...
Bluetooth Audio Gateway S... Service sup... Manual (Trig... Local Service
Bluetooth Support Service The Bluetoo... Manual (Trig... Local Service
Bluetooth User Support Ser... The Bluetoo... Manual (Trig... Local Syste...
BranchCache This service ... Manual Network S...
Capability Access Manager ... Provides fac... Manual Local Syste...
CaptureService_187ae70 Enables opti... Running Manual Local Syste...
Cellular Time This service ... Manual (Trig... Local Service
Certificate Propagation Copies user ... Manual (Trig... Local Syste...
Client License Service (ClipS... Provides inf... Running Manual (Trig... Local Syste...
Clipboard User Service_187a... This user ser... Running Manual Local Syste...
CNG Key Isolation The CNG ke... Running Manual (Trig... Local Syste...
COM+ Event System Supports Sy... Running Automatic Local Service
COM+ System Application Manages th... Manual Local Syste...
Connected Devices Platfor... This service ... Running Automatic (... Local Service
Connected Devices Platfor... This user ser... Running Automatic Local Syste...
Connected User Experience... The Connec... Running Automatic Local Syste...
ConsentUX_187ae70 Allows Con... Manual Local Syste...
Contact Data_187ae70 Indexes con... Manual Local Syste...
CoreMessaging Manages co... Running Automatic Local Service
Credential Manager Provides se... Running Manual Local Syste...
CredentialEnrollmentMana... Credential E... Manual Local Syste...
Cryptographic Services Provides thr... Running Automatic Network S...
Data Sharing Service Provides da... Running Manual (Trig... Local Syste...
Data Usage Network da... Running Automatic Local Service
DCOM Server Process Laun... The DCOML... Running Automatic Local Syste...
Declared Configuration(DC)... Process Dec... Manual (Trig... Local Syste...
Delivery Optimization Performs co... Running Automatic (... Network S...
Extended
Standard



บันทึกประเภท Network Interface และ IP Address

Ethernet adapter Ethernet:

- **Link-local IPv6 Address**: fe80::90a5:9522:d7b1:2056%2
- **IPv4 Address**: 10.34.14.50
- **Subnet Mask**: 255.255.255.0
- **Default Gateway**: 10.34.14.254

Ethernet adapter Ethernet 2:

- **Link-local IPv6 Address**: fe80::e17d:ae07:e927:3f18%12
- **IPv4 Address**: 192.168.56.1
- **Subnet Mask**: 255.255.255.0
- **Default Gateway**: ไม่มีค่า (ไม่ได้เชื่อมต่อ Default Gateway)

จำนวน Bit ของ IPv4 address = 32 bit

จำนวน Bit ของ IPv6 address = 128 bit

```
C:\Users\Student>ping www.mahidol.ac.th

Pinging mahidol.ac.th [10.41.185.1] with 32 bytes of data:
Reply from 10.41.185.1: bytes=32 time=2ms TTL=60
Reply from 10.41.185.1: bytes=32 time=2ms TTL=60
Reply from 10.41.185.1: bytes=32 time=1ms TTL=60
Reply from 10.41.185.1: bytes=32 time=1ms TTL=60

Ping statistics for 10.41.185.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\Users\Student>ping www.google.com

Pinging www.google.com [172.217.25.196] with 32 bytes of data:
Reply from 172.217.25.196: bytes=32 time=23ms TTL=51
Reply from 172.217.25.196: bytes=32 time=23ms TTL=51
Reply from 172.217.25.196: bytes=32 time=23ms TTL=51
Reply from 172.217.25.196: bytes=32 time=32ms TTL=51

Ping statistics for 172.217.25.196:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 23ms, Maximum = 32ms, Average = 25ms

C:\Users\Student>
```

คำสั่ง ping บอกข้อมูลอะไรบ้าง?

- ชื่อหรือ IP ของปลายทาง : www.google.com หรือ 172.217.25.196
- ขนาดของ Packet : 32 bytes
- ผลลัพธ์ของการ Ping (Time, Time to Live) : time=23ms, TTL=51
- Ping Statistics (Packets Sent, Received, Lost, Loss rate)
- เวลาในการตอบสนองโดยเฉลี่ย (Minimum, Maximum, Average time)

```
C:\Users\Student>netstat -rn
===========================================================================
Interface List
  2...9c 7b ef 45 01 ce ......Intel(R) Ethernet Connection (11) I219-LM
 12...0a 00 27 00 00 0c ......VirtualBox Host-Only Ethernet Adapter
  1...........................Software Loopback Interface 1
===========================================================================

IPv4 Route Table
===========================================================================
Active Routes:
Network Destination        Netmask          Gateway       Interface  Metric
          0.0.0.0          0.0.0.0     10.34.14.254     10.34.14.50     281
       10.34.14.0    255.255.255.0         On-link     10.34.14.50     281
      10.34.14.50  255.255.255.255         On-link     10.34.14.50     281
     10.34.14.255  255.255.255.255         On-link     10.34.14.50     281
        127.0.0.0        255.0.0.0         On-link        127.0.0.1     331
        127.0.0.1  255.255.255.255         On-link        127.0.0.1     331
  127.255.255.255  255.255.255.255         On-link        127.0.0.1     331
    192.168.56.0    255.255.255.0         On-link    192.168.56.1     281
    192.168.56.1  255.255.255.255         On-link    192.168.56.1     281
  192.168.56.255  255.255.255.255         On-link    192.168.56.1     281
        224.0.0.0        240.0.0.0         On-link        127.0.0.1     331
        224.0.0.0        240.0.0.0         On-link    192.168.56.1     281
        224.0.0.0        240.0.0.0         On-link     10.34.14.50     281
  255.255.255.255  255.255.255.255         On-link        127.0.0.1     331
  255.255.255.255  255.255.255.255         On-link    192.168.56.1     281
  255.255.255.255  255.255.255.255         On-link     10.34.14.50     281
===========================================================================
Persistent Routes:
  Network Address          Netmask  Gateway Address  Metric
          0.0.0.0          0.0.0.0     10.34.14.254  Default
===========================================================================

IPv6 Route Table
===========================================================================
Active Routes:
 If Metric Network Destination      Gateway
  1    331 ::1/128                  On-link
 12    281 fe80::/64                On-link
  2    281 fe80::/64                On-link
  2    281 fe80::90a5:9522:d7b1:2056/128
                                    On-link
 12    281 fe80::e17d:ae07:e927:3f18/128
                                    On-link
  1    331 ff00::/8                 On-link
 12    281 ff00::/8                 On-link
  2    281 ff00::/8                 On-link
===========================================================================
Persistent Routes:
  None
```

คำสั่ง netstat -rn บอกข้อมูลอะไรบ้าง?

- Interface List
- Active Routes (Network Destination, Netmask, Gateway, Interface, Metric)
- Routing Table IPv4 และ IPv6

- Persistent Routes

```
C:\Users\Student>arp -a

Interface: 10.34.14.50 --- 0x2
  Internet Address      Physical Address      Type
  10.34.14.4            9c-7b-ef-45-00-0a     dynamic
  10.34.14.5            9c-7b-ef-45-02-29     dynamic
  10.34.14.7            9c-7b-ef-44-d4-fd     dynamic
  10.34.14.8            9c-7b-ef-44-fe-ad     dynamic
  10.34.14.9            9c-7b-ef-44-ff-72     dynamic
  10.34.14.10           9c-7b-ef-44-ff-17     dynamic
  10.34.14.11           9c-7b-ef-44-fe-dc     dynamic
  10.34.14.12           9c-7b-ef-45-01-e6     dynamic
  10.34.14.16           9c-7b-ef-44-ff-f4     dynamic
  10.34.14.17           9c-7b-ef-44-f7-e2     dynamic
  10.34.14.18           9c-7b-ef-44-ff-ee     dynamic
  10.34.14.24           9c-7b-ef-45-00-ce     dynamic
  10.34.14.25           9c-7b-ef-45-01-ad     dynamic
  10.34.14.26           9c-7b-ef-44-fe-8b     dynamic
  10.34.14.27           9c-7b-ef-45-03-0f     dynamic
  10.34.14.28           9c-7b-ef-45-02-23     dynamic
  10.34.14.29           9c-7b-ef-44-f7-28     dynamic
  10.34.14.31           9c-7b-ef-44-fe-a1     dynamic
  10.34.14.32           9c-7b-ef-45-01-db     dynamic
  10.34.14.33           9c-7b-ef-45-02-41     dynamic
  10.34.14.35           9c-7b-ef-45-00-00     dynamic
  10.34.14.36           9c-7b-ef-45-01-10     dynamic
  10.34.14.37           9c-7b-ef-45-01-4b     dynamic
  10.34.14.38           9c-7b-ef-44-ff-f9     dynamic
  10.34.14.39           9c-7b-ef-45-00-bc     dynamic
  10.34.14.43           9c-7b-ef-45-01-41     dynamic
  10.34.14.44           9c-7b-ef-45-01-d3     dynamic
  10.34.14.45           9c-7b-ef-44-ff-98     dynamic
  10.34.14.51           9c-7b-ef-45-00-ac     dynamic
  10.34.14.52           9c-7b-ef-44-fb-85     dynamic
  10.34.14.53           9c-7b-ef-44-fe-90     dynamic
  10.34.14.54           9c-7b-ef-44-fe-9b     dynamic
  10.34.14.56           9c-7b-ef-45-03-3d     dynamic
  10.34.14.59           9c-7b-ef-45-02-1f     dynamic
  10.34.14.60           9c-7b-ef-45-01-20     dynamic
  10.34.14.64           9c-7b-ef-45-00-74     dynamic
  10.34.14.254          a4-27-a5-7d-77-01     dynamic
  10.34.14.255          ff-ff-ff-ff-ff-ff     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  239.255.255.250       01-00-5e-7f-ff-fa     static

Interface: 192.168.56.1 --- 0xc
  Internet Address      Physical Address      Type
  192.168.56.255        ff-ff-ff-ff-ff-ff     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  224.0.0.252           01-00-5e-00-00-fc     static
  239.255.255.250       01-00-5e-7f-ff-fa     static

C:\Users\Student>
```

คำสั่ง arp -a บอกข้อมูลอะไรบ้าง?

- Interface
  - **IP Address ของอินเทอร์เฟซ** `10.34.14.50` , `192.168.56.1`
  - รหัสอินเทอร์เฟซ `0x2`, `0xc`
- Internet Address **IP Address** ที่จับคู่กับ MAC Address
- Physical Address **MAC Address** ที่จับคู่กับ IP Address
- Type (Dynamic, Static)

```
C:\Users\Student>nslookup www.mahidol.ac.th
Server:  pi.hole
Address:  10.34.101.2

Non-authoritative answer:
Name:    mahidol.ac.th
Addresses:  2001:3c8:2707:10a0::10
          10.41.185.1
Aliases:  www.mahidol.ac.th


C:\Users\Student>
```

คำสั่ง nslookup บอกข้อมูลอะไรบ้าง?

- Server (Name , IP Address DNS)
- Non-authoritative answer (Domain Name, Addresses, Aliases)