Performance Monitoring Tools

for different OS

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Os_assignment_1

WHAT ARE PERFORMING MONITORING TOOLS AND WHY DO WE NEED THEM

Although computers are designed to check their own resources periodically and self-heal, sometimes unexpected code errors in software or high temperature due to malfunctioning hardware can impact a system's resources.
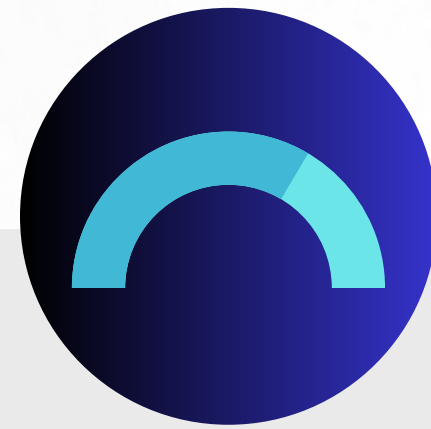
The need to implement an all-in-one OS "Operating System" monitoring software and solution is necessary to minimize those failures. An OS Monitoring Tool will collect periodic information from core components, analyze it and display the results in real-time graphics. As soon as an event is triggered, they will alert you so you can work on the problem.
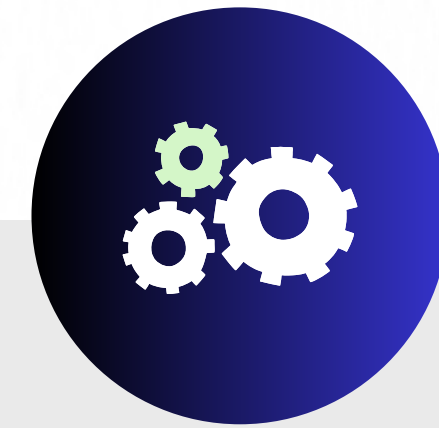
WHAT DO THEY MONITOR?

OS SERVICES

A monitoring tool can alert you when a critical service is paused, running, stopped or terminated. Some important services to check in a Windows Server are Active Directory, DHCP, Sendmail, Plug and Play Service.

MEMORY

Excessive memory usage could also impact an OS. For example, too much cache usage (% of memory) can lead to a performance crash.
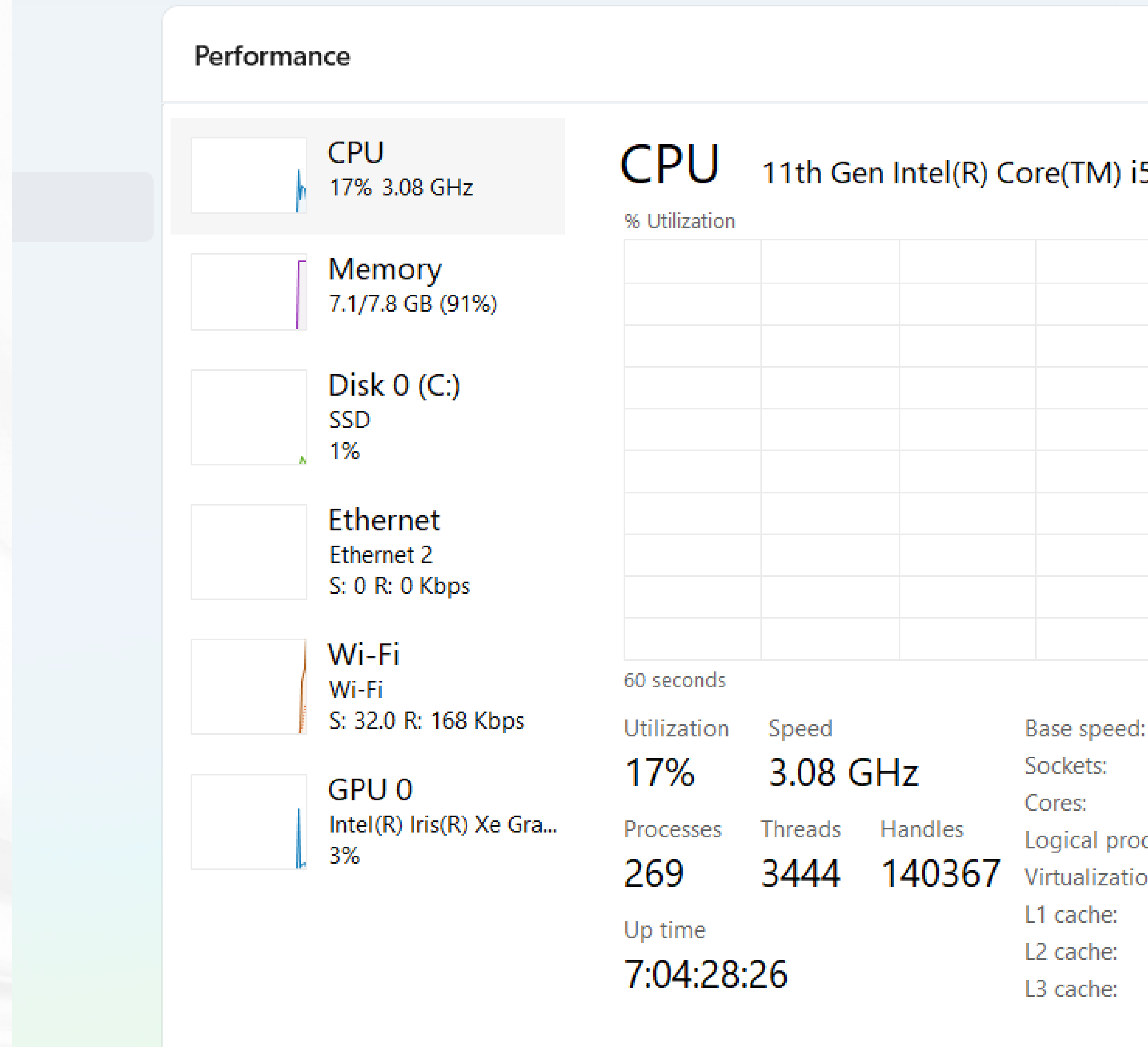
CPU UTILIZATION

A process can either reduce or increase the CPU overall consumption. A process could enter a hung state due to errors in the code and increase the usage of the CPU, leading to a potential rise in temperature.

TASK MANAGER

The Task Manager is a powerful <u>Windows 11</u> utility that provides detailed real-time information about the software and hardware on your PC. It's also indispensable when troubleshooting applications, monitoring hardware resource usage, and managing startup programs.

To open it:-
ctrl+shift+esc
Windows_key+X
Ctrl+alt+delete

Performance

CPU
17% 3.08 GHz

Memory
7.1/7.8 GB (91%)

Disk 0 (C:)
SSD
1%

Ethernet
Ethernet 2
S: 0 R: 0 Kbps

Wi-Fi
Wi-Fi
S: 32.0 R: 168 Kbps

GPU 0
Intel(R) Iris(R) Xe Gra...
3%

CPU   11th Gen Intel(R) Core(TM) i5

% Utilization

60 seconds

Utilization	Speed
17%	3.08 GHz

Processes	Threads	Handles
269	3444	140367

Up time

7:04:28:26

Base speed:
Sockets:
Cores:
Logical proc
Virtualizatio
L1 cache:
L2 cache:
L3 cache:

ANTUTU BENCHMARK

AnTuTu Benchmark is a software benchmarking tool used to evaluate the performance of smartphones and other devices.

AnTuTu Benchmark tests are divided into phases and provide an overall numerical score and individual results for each test.
The results of the individual scores are combined to produce a total score

CONCLUSION

In conclusion, performance monitoring tools play a crucial role in maintaining the health and efficiency of systems.

Choosing a tool depends on the ease of use, type of environment or the requirements of the user. Therefore it is essential to look into various options and choose the right tool for our use.