Lab 5: Task Manager & Process Troubleshooting

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Description

This lab simulates a typical 1st Line Technician support task where a user reports that their system is running slowly or is unresponsive. The goal was to identify and resolve performance issues using both Task Manager and PowerShell.

Objectives

- Simulate a high CPU usage scenario

- Investigate system performance using Task Manager

- Identify and terminate problematic processes

- Use PowerShell to monitor and control system processes

- Understand how to respond to “My PC is slow” helpdesk tickets

Simulated a Performance Issue

- Opened multiple applications to increase system load

- Launched an infinite loop in PowerShell to spike CPU:

```powershell

while ($true)

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Investigated with Task Manager

- Opened Task Manager (`Ctrl + Shift + Esc`)

- Monitored CPU and memory usage

- Identified and ended the high-usage PowerShell process

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Used PowerShell to Monitor and Manage Processes

- Listed top memory-consuming processes:

```powershell

Get-Process | Sort-Object WorkingSet -Descending | Select-Object -First 10 Name, Id, CPU, WorkingSet

```

- Stopped a specific process (e.g., Notepad):

```powershell

Stop-Process -Name notepad -Force

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. Viewed System Uptime and Usage (Optional)

- Checked CPU load:

```powershell

Get-Counter '\Processor(\_Total)\% Processor Time'

```

- Viewed system uptime:

```powershell

(Get-CimInstance Win32\_OperatingSystem).LastBootUpTime

```

Learned to recognize performance issues from both GUI and CLI

- Gained hands-on experience in identifying resource-hogging processes

- Practiced safe process termination via Task Manager and PowerShell

- Strengthened foundational troubleshooting skills for IT support roles