



مهم جدأ

هذا الملف للمراجعة السريعة واخذ الملاحظات عليه فقط ،لانه يحتوي على اقل من 20٪ مما يتم شرحه في الفيديوهات الاستعجال والاعتماد عليه فقط سوف يجعلك تخسر كميه معلومات وخبرات كثيره

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لاتنسى عمل لايك ومشاركة القناة لتعم الفائدة للجميع لا تنسونا من دعائكم

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Long-Running Applications:

Windows Services are designed to run indefinitely, starting automatically with the system or when triggered by specific conditions.

- Example: A database service that needs to stay active to respond to queries at any time.
- Benefit: Ensures consistent availability without requiring user intervention.



Automatic Startup:

Windows Services can be configured to start automatically when the operating system boots, even before a user logs in.

- Example: Windows Defender Antivirus starts at boot to ensure the system is protected.
- Benefit: Critical services are always ready and do not depend on user actions.



Background Processing:

Services operate in the background and do not require a graphical user interface (GUI).

- Example: Print Spooler manages print jobs in the background without interfering with the user's workflow.
- Benefit: Frees up resources and avoids user disruption.



Minimal User Interaction:

Windows Services typically run without requiring user interaction, making them ideal for tasks that must run silently or on servers.

- Example: Task Scheduler executes maintenance scripts at specified times.
- Benefit: Provides a "set it and forget it" approach to recurring tasks.



High Availability:

Services are designed to be reliable and can automatically restart after a crash or failure.

- Example: SQL Server can be configured to restart automatically if it stops unexpectedly.
- Benefit: Ensures system stability and reduces downtime.



Multi-User Environments:

Windows Services can function independently of the logged-in user, making them ideal for multi-user or server environments.

- Example: DHCP Client provides network configuration for all users on a machine.
- Benefit: Supports shared and enterprise-wide tasks seamlessly.



Scheduling and Trigger-Based Execution:

Windows Services can be configured to run at specific times or in response to specific triggers.

- Example: A backup service starts at midnight daily.
- Benefit: Automates tasks based on predefined schedules or system events.



Security:

Windows Services can run under specific accounts (e.g., LocalSystem, NetworkService) to isolate privileges and reduce security risks.

- Example: Remote Desktop Services runs with restricted permissions for secure remote access.
- Benefit: Enhances security by limiting the impact of potential vulnerabilities.



System Integration:

Windows Services can integrate tightly with the Windows operating system and other services, enabling complex workflows.

- Example: IIS integrates with multiple services to provide a seamless web hosting environment.
- Benefit: Allows the creation of robust, multi-layered solutions.



Centralized Management:

Windows Services can be managed centrally using tools like services.msc, PowerShell, or the Command Prompt.

- Example: Administrators can start, stop, or restart services remotely via PowerShell.
- Benefit: Simplifies monitoring and administration.



Common Use Cases:

- 1. Security: Antivirus, firewalls, and authentication services.
- 2. Networking: DHCP, DNS, and VPN services.
- 3. Data Management: Database servers and file synchronization services.
- 4. Automation: Task schedulers and logging services.
- 5. Enterprise Applications: Services for Active Directory and Exchange Server.



