1. How to Install Windows Server Core Step by Step

1. **Boot from Installation Media:** Insert the Windows Server DVD or bootable USB drive and start the system.
2. **Select Language and Region:** Choose your preferred language, time, and keyboard settings.
3. **Click 'Install Now':** Select 'Windows Server Core' version for improved performance and security.
4. **Accept License Terms:** Agree to the license terms to proceed.
5. **Choose Installation Type:** Select **Custom: Install Windows Only (Advanced)**.
6. **Partition the Drive:** Select the target drive and create partitions if required.
7. **Begin Installation:** Click 'Next' to start installation.
8. **Complete Setup:** After installation, set a password for the Administrator account and log in.

2. Advantages and Disadvantages of Using Server Core

Aspect	Advantages	Disadvantages
Performance	Uses fewer system resources, improving performance and reducing hardware strain.	Requires command-line knowledge for management, which may require additional training.
Security	Reduced attack surface due to minimal components, improving server resilience.	May pose challenges for administrators accustomed to GUI-based tools.
Maintenance	Fewer updates and reboots required, resulting in improved uptime.	Limited compatibility with some third-party applications requiring GUI support.
Installation Size	Smaller footprint on disk, saving storage space and improving overall efficiency.	Remote management may be necessary for complex tasks and configurations.
Resource Efficiency	Ideal for virtualized environments as it consumes fewer resources.	Learning curve for those unfamiliar with PowerShell or command-line management.

3. Benefits of Using Windows Server Core over Full GUI Version

- **Enhanced Performance:** Consumes fewer system resources, improving speed and responsiveness.
- **Improved Security:** Minimal features reduce potential attack vectors, making it more resistant to cyber threats.

- **Reduced Maintenance:** Fewer updates and patches lead to less downtime, improving server availability.
- **Efficient Resource Utilization:** Ideal for lightweight or high-performance server environments, enhancing scalability.
- **Faster Deployment:** Since it installs fewer features, deployment is quicker and more streamlined.
- **Lower System Overhead:** Ideal for cloud, containerized, and virtualized workloads due to its minimalistic design.

4. How Windows Server Core Reduces the Attack Surface

- **Minimal Installed Components:** Excludes unnecessary features like a graphical user interface, reducing vulnerabilities and improving security.
- **Fewer Services Running:** Only essential services are active, reducing the number of potential entry points for attackers.
- **Smaller Code Base:** A reduced code base means fewer exploitable bugs, improving overall system security.
- **Enhanced Isolation:** Server Core isolates critical services, improving resilience against security threats.
- **Reduced Attack Vectors:** The absence of desktop features like Internet Explorer or File Explorer minimizes risks from common exploits.
- **Improved Firewall Control:** Server Core provides greater control over inbound and outbound traffic, ensuring tighter security protocols.