

# Professional IT Project Documentation: Enforcing Password Policy using GPO in Windows Server 2022

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## Project Title:

**Enterprise Password Policy Enforcement via Group Policy (Windows Server 2022)**

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## Objective:

To configure a domain-wide password policy via Group Policy Management Console (GPMC) on Windows Server 2022, ensuring strong authentication mechanisms and adherence to enterprise security standards.

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## Environment Setup:

- **Server OS:** Windows Server 2022 (Domain Controller)
  - **Client OS:** Windows 10/11 Enterprise Edition
  - **Domain Name:** kali.local
  - **Tools Used:** Group Policy Management Console (GPMC)
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## Activity: Password Policy GPO Configuration

1. **GPO Creation**
  - Open GPMC.
  - Right-click the domain root and create a new GPO named Password Policy
  - Link the GPO to the domain.
2. **Navigate to Policy Settings**
  - Edit the GPO.
  - Go to:  
Computer Configuration → Policies → Windows Settings → Security Settings → Account Policies → Password Policy.
3. **Configure Settings:**
  - **Minimum Password Length:** 12 characters  
*Enhances password entropy and makes brute-force attacks impractical.*
  - **Password Complexity:** Enabled  
*Enforces inclusion of uppercase, lowercase, digits, and special characters.*

- **Maximum Password Age:** 30 days  
*Requires users to update passwords quarterly, reducing stale credentials.*
  - **Minimum Password Age:** 29 day  
*Prevents password cycling to reuse old passwords.*
4. **Apply and Verify:**
- Applied settings and ran `gpupdate /force` on client systems.
  - Verified policy via `rsop.msc` and `gpresult /h report.html`.
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## Security Impact & Job Relevance:

- Ensures **baseline password security compliance** for enterprise deployments.
  - Demonstrates proficiency in **Active Directory, GPO scoping, and security best practices.**
  - Aligns with real-world standards (e.g., **NIST SP 800-63, CIS Benchmarks**).
  - Valuable for IT roles like **System Administrator, Network Engineer, or Security Analyst.**
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## **Status:**

Successfully implemented, tested, and documented.





