Learning Active Directory Project

You are tasked with setting up a new Active Directory environment for a medium-sized company named "adds." The company has specific requirements for security, user management, and integration with other services.

Tasks:

Active Directory Setup:

- o Install and configure a new Active Directory domain for adds.
- o Set up DNS and DHCP services to support the AD environment.

User and Group Management:
- o Create user accounts for various departments within the organization (e.g., Finance, IT, Sales).
- o Organize users into security groups based on their roles.
- o Implement Organizational Units (OUs) to reflect the company's organizational structure.

Group Policy Implementation:
- o Create and enforce a Group Policy Object (GPO) that establishes password policies for user accounts.
- o Implement a GPO to control desktop settings, including wallpaper, screensaver, and other configurations.

Security and Permissions:
- o Set up NTFS permissions on file shares for different departments.
- o Create security groups to control access to specific resources.
- o Implement account lockout policies to enhance security.

Integration with Other Services (OPTIONAL):
- o Integrate Active Directory with Microsoft Exchange for email services.
- o Configure SharePoint integration for document collaboration.

- Implement single sign-on (SSO) using Active Directory Federation Services (ADFS) for external applications.

Backup and Recovery:
- Establish a regular backup schedule for Active Directory.
- Simulate a disaster recovery scenario and restore AD from backups.

Azure Active Directory Integration:
- Connect on-premises AD with Azure AD using Azure AD Connect.
- Enable Azure AD features such as Conditional Access and Multi-Factor Authentication (MFA).

Monitoring and Troubleshooting:
- Set up monitoring for AD events using Event Viewer.
- Implement automated alerts for critical AD events.
- Troubleshoot and resolve common issues such as replication problems or login failures.

Documentation:
Document your configurations, policies, and procedures throughout the project. Include diagrams of the AD structure, details of implemented policies, and a disaster recovery plan. This documentation will serve as a comprehensive guide for future administrators and demonstrate your skills.

Presentation: Create a presentation summarizing the implemented Active Directory environment, highlighting key security measures, and showcasing the integration with other services. This presentation can be used to communicate your work to stakeholders or team members.

ADDS Business Structure:

Executive Management:

- CEO (Chief Executive Officer)
- CFO (Chief Financial Officer)
- CTO (Chief Technology Officer)
- CHRO (Chief Human Resources Officer)

Departments:

Finance Department:

- Finance Manager
- Accountants
- Financial Analysts

IT Department:

- IT Manager
- System Administrators
- Network Administrators
- Help Desk Staff

Sales Department:

- Sales Manager
- Sales Representatives
- Sales Support

Marketing Department:

- Marketing Manager
- Marketing Specialists
- Graphic Designers

Human Resources Department:

- HR Manager
- HR Generalists

- Recruitment Specialists

Security Groups:

Adds_Executives:
Members: CEO, CFO, CTO, CHRO
Access: Executive-level resources and sensitive data. *Adds_Finance*: Members: Finance Manager, Accountants, Financial Analysts Access: Financial data and related resources.

Adds_IT:
Members: IT Manager, System Administrators, Network Administrators
Access: IT infrastructure, servers, and technology resources.

Adds_Sales: Members: Sales Manager, Sales Representatives, Sales Support
Access: Sales-related data and customer information.

Adds_Marketing:
Members: Marketing Manager, Marketing Specialists, Graphic Designers
Access: Marketing materials and campaigns.

Adds_HR:
Members: HR Manager, HR Generalists, Recruitment Specialists
Access: HR-related data, employee records.

Organizational Units (OUs):
Adds_Users: Contains all user accounts for easy management. Subdivided into OUs for each department.

Adds_Groups: Contains security and distribution groups for better management.

User Accounts:

Create individual user accounts for each employee within the respective department OUs. Ensure that each user account is a member of the appropriate security groups based on their role.

Group Policy:
Implement Group Policy Objects (GPOs) to enforce security policies, desktop settings, and other configurations at the department level.

Documentation Components:

Project Overview:
- o Briefly describe the purpose and goals of the project.
- o Include information about the organization (adds) and its requirements.

Active Directory Structure:
- o Provide a visual representation of the Active Directory structure using diagrams.
- o Highlight the layout of OUs, security groups, and any other significant components.

Installation and Configuration:
- o Outline the steps taken to install and configure Active Directory, DNS, and DHCP.
- o Include server specifications and any considerations made during the installation.

User and Group Management:

- o Document the process of creating user accounts and organizing them into relevant OUs.
- o Explain the purpose and membership criteria for each security group.

Group Policy Implementation:
- o List the Group Policy Objects (GPOs) created and their purpose.
- o Document the specific configurations applied through GPOs, such as password policies and desktop settings.

Security and Permissions:
- o Detail the NTFS permissions set on file shares and any specific security groups created.
- o Explain the rationale behind the chosen security measures.

Integration with Other Services:
- o Provide step-by-step instructions for integrating with Exchange, SharePoint, and ADFS.
- o Include any configurations necessary for single sign-on and external application access.

Backup and Recovery:
- o Document the backup schedule and the process for restoring Active Directory from backups.
- o Include details on backup storage locations and recovery procedures.

Azure Active Directory Integration:
- o Outline the steps taken to connect on-premises AD with Azure AD using Azure AD Connect.
- o Explain any additional configurations for Azure AD features.

Monitoring and Troubleshooting:
- o Describe the monitoring tools used (e.g., Event Viewer) and any automated alerting systems.

- Provide a troubleshooting guide for common issues and their resolutions.

Testing and Validation:
- Document any testing performed during the project to validate configurations.
- Include the results of simulations, such as AD replication tests or disaster recovery drills.

Formatting and Organization:

Use Consistent Formatting:
- Maintain a consistent style throughout the documentation.
- Use headings, subheadings, and bullet points for clarity.

Include Screenshots and Diagrams:
- Supplement your text with screenshots and diagrams for visual clarity.
- Use tools like Microsoft Visio or draw.io for AD structure diagrams.

Version Control:
- If the project evolves over time, consider implementing version control for the documentation.