Lab 2 - PowerShell Basics & System Administration

Lab Objective

This lab is designed to help you gain hands-on experience using PowerShell for system administration tasks.

You will practice working with commands to manage files, services, processes, event logs, and system monitoring.

Lab Requirements

- Windows Server 2022/2025
- PowerShell 5.1 or later
- Administrator privileges

⚒ Lab Tasks

Task 1: Exploring PowerShell Commands

1. Identify available PowerShell commands.
2. Retrieve detailed help for a specific command.
3. List all properties and methods of an object.

Task 2: Working with Objects

1. Display process information in table and list formats.
2. Sort processes based on CPU usage.
3. Select and filter objects based on specific conditions.
4. Loop through system objects and extract specific information.

Task 3: Managing the File System

1. Navigate through directories and list files.

2. Create and delete files and folders.

3. Copy and move files between locations.

4. Check available disk space.

Task 4: Managing System Services and Processes

1. List all running services on the system.

2. Start and stop specific services.

3. Retrieve information about active processes.

4. Terminate a process.

Task 5: Monitoring Event Logs and System Information

1. View the latest system event logs.

2. Retrieve security event logs.

3. Extract operating system details using PowerShell.

Lab Deliverables

You should submit a short **lab report** in **PDF** with the **screenshots** of the all the **commands** used.