Operating System Administration Lab

During this topic, the principles of separation, isolation, encapsulation, fail-safe defaults/fail secure, and modularity will be implemented to help the network with layering defense security. This is important for the defense of the network.

Refer to the "2-2 Operating System Administration Lab" video to complete this assignment.

**Part 1:**

Provide screenshots to illustrate the successful completion of each task, and be sure to include the verification that the AD user restrictions are working. For each screenshot, include 1–2 sentences summarizing what the screenshot is illustrating.

In the Azure cloud environment, perform the following tasks on  the Windows Server 2019 VM:

* Install patches and updates for the server.
* In Active Directory, create security policies as described in the following bullet points, which will adapt the user accounts management and enforce restrictions on account usage.
* Using the 10 users created in the "Topic 1 Benchmark – Active Directory Lab," add 3 users to the Research and Development Department group, 3 users to the Human Resources Department group, and the remaining 4 users to the IT Department group.
* Limit the users in the Research and Development Department group to log-on hours from 9 a.m. to 8 p.m., Monday through Friday. Then enable and push out a group policy to automatically log users off the system when their log-on hours expire.
* Apply the principle of least privilege to the users in the Human Resources (HR) Department group. Allow HR users to read and write access to all AD user account information.
* Apply the principle of least privilege to the users in the IT Department group. Allow IT users to reset passwords and force a password change at the next log-on for all AD user accounts.
* Verify that an HR user can edit a user account in AD.
* Verify that an IT user can change a password and cannot edit a user account in AD.

**Part 2:**

Write a 250- to 500-word summary addressing the following:

* Provide a brief explanation of what you accomplish when you install an operating system.
* Explain why it is important to install patches and updates as an operating systems administrator.
* Explain the significance of configuring appropriate authentication group policies as part of managing system services and user accounts.
* Explain the interaction between security and system usability, and the importance of minimizing the effects of security mechanisms.

Place all screenshots in a Microsoft Word document and submit it to the assignment. When submitting screenshots as part of your assignment, you must always include a full image of your desktop window, including the date and time in the lower right-hand corner of the Windows desktop or the upper-right corner of the macOS desktop.