Week 4 Homework Submission File: Linux Systems Administration

Please edit this file by adding the solution commands on the line below the prompt.

Save and submit the completed file for your homework submission.

Step 1: Ensure/Double Check Permissions on Sensitive Files

1. Permissions on `/etc/shadow` should allow only `root` read and write access.
    - Command to inspect permissions:
    - Command to set permissions (if needed):
2. Permissions on `/etc/gshadow` should allow only `root` read and write access.
    - Command to inspect permissions:
    - Command to set permissions (if needed):
3. Permissions on `/etc/group` should allow `root` read and write access, and allow everyone else read access only.
    - Command to inspect permissions:
    - Command to set permissions (if needed):
4. Permissions on `/etc/passwd` should allow `root` read and write access, and allow everyone else read access only.
    - Command to inspect permissions:
    - Command to set permissions (if needed):

Step 2: Create User Accounts

1. Add user accounts for `sam`, `joe`, `amy`, `sara`, and `admin`.

- Command to add each user account (include all five users):

2. Ensure that only the `admin` has general sudo access.
    - Command to add `admin` to the `sudo` group:

Step 3: Create User Group and Collaborative Folder

1. Add an `engineers` group to the system.
    - Command to add group:
2. Add users `sam`, `joe`, `amy`, and `sara` to the managed group.
    - Command to add users to `engineers` group (include all four users):
3. Create a shared folder for this group at `/home/engineers`.
    - Command to create the shared folder:
4. Change ownership on the new engineers' shared folder to the `engineers` group.
    - Command to change ownership of engineer's shared folder to engineer group:

Step 4: Lynis Auditing

1. Command to install Lynis:
2. Command to see documentation and instructions:
3. Command to run an audit:
4. Provide a report from the Lynis output on what can be done to harden the system.
    - Screenshot of report output:

Bonus

1. Command to install chkrootkit:
2. Command to see documentation and instructions:
3. Command to run expert mode:

4. Provide a report from the chrootkit output on what can be done to harden the system.

    - Screenshot of end of sample output: