Linux Commands

### **Week 4: Linux Administration and Hardening**

### **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:
   * Ls -l /etc/
   * Command to set permissions (if needed):
   * Sudo chmod 666 shadow
2. Permissions on /etc/gshadow should allow only root read and write access.  
   * Command to inspect permissions:
   * Ls -l /etc/
   * 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:
   * Ls -l /etc/
   * 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:
   * Ls -l /etc/
   * 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):
   * Sudo useradd Sam, Joe, Amy, Sara, and Admin
2. Ensure that only the admin has general sudo access.  
   * Command to add admin to the sudo group:
   * Sudo useradd -g sudo admin

### **Step 3: Create User Group and Collaborative Folder**

1. Add an engineers group to the system.  
   * Command to add group:
   * Groupadd engineers
2. Add users sam, joe, amy, and sara to the managed group.  
   * Command to add users to engineers group (include all four users):
   * Usermod -g {engineers} {Sam, Joe, Amy, Sara}
3. Create a shared folder for this group at /home/engineers.  
   * Command to create the shared folder:
   * Sudo mkdir -p /home/engineers/
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:
   * $ chgrp home/engineers/

### **Step 4: Lynis Auditing**

1. Command to install Lynis:

-y lynis

1. Command to see documentation and instructions:

Lynis show commands

1. Command to run an audit:

Sudo audit lynis system