1. Permissions on /etc/shadow should allow only root read and write access.  
   * Command to inspect permissions:ls -al
   * Command to set permissions (if needed):chmod 600
2. Permissions on /etc/gshadow should allow only root read and write access.  
   * Command to inspect permissions:ls -al
   * Command to set permissions (if needed):chmod 600
3. Permissions on /etc/group should allow root read and write access, and allow everyone else read access only.  
   * Command to inspect permissions:ls -al
   * Command to set permissions (if needed):chmod 644
4. Permissions on /etc/passwd should allow root read and write access, and allow everyone else read access only.  
   * Command to inspect permissions:ls -al
   * Command to set permissions (if needed):chmod 644

### **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 adduser sam
   * Sudo adduser joe
   * Sudo adduser amy
   * Sudo adduser sara
   * Sudo adduser admin
2. Force users to create 16-character passwords incorporating numbers and symbols.  
   * Command to edit pwquality.conf file: minlen=16
   * Updates to configuration file: sudo systemctl restart pwquality
3. Force passwords to expire every 90 days.  
   * Command to to set each new user's password to expire in 90 days (include all five users): sudo chage -M 90 sam
   * sudo chage -M 90 joe
   * sudo chage -M 90 amy
   * sudo chage -M 90 sara
   * sudo chage -M 90 sam
   * sudo chage -M 90 admin
4. Ensure that only the admin has general sudo access.  
   * Command to add admin to the sudo group:sudo visudo
   * Admin ALL=(ALL:ALL) ALL

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

1. Add an engineers group to the system.  
   * Command to add group:sudo 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):sudo usermod -a -G sudo joe
   * sudo usermod -a -G sudo amy
   * sudo usermod -a -G sudo sara
   * sudo usermod -a -G sudo sam
   * sudo usermod -a -G sudo admin
3. Create a shared folder for this group at /home/engineers.  
   * Command to create the shared folder:cd /home/engineers
   * Mkdir 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:chmod :engineers

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

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

\*Couldn’t save screenshot-will have to revisit