Scenario

You are a security professional at a large organization. You mainly work with their research team. Part of your job is to ensure users on this team are authorized with the appropriate permissions. This helps keep the system secure.

Your task is to examine existing permissions on the file system. You'll need to determine if the permissions match the authorization that should be given. If they do not match, you'll need to modify the permissions to authorize the appropriate users and remove any unauthorized access.

Instructions

- For any typed commands, highlight your command in gray and use a monospaced font, such as in this example with another command: `grep OS updates.txt`.

Step 1: Check file and directory details

Check the permissions set for files and subdirectories in the **`projects`** directory. Make sure you display all permissions, including hidden files. Include the permissions in the file Current file permissions

Describe the command you can use to check permissions in the **Check file and directory details** section of the **File permissions in the Linux** template. Take a screenshot of the Linux command you used. Or, type this command directly into the template.

Then, use the output of this command to indicate the current permissions.

Step 2: Describe the permission string

Choose one example from the output in the previous step. In the **Describe the permissions string** section of the **File permissions in Linux** template, write a short description that explains the 10-character string in the example. You should describe what the 10-character string is for and what each character represents.

Step 3: Change file permissions

The organization does not allow others to have write access to any files. Based on the permissions established in Step 1, identify which file needs to have its permissions modified. Use a Linux command to modify these permissions.

Describe the command you used and its output in the **Change file permissions** section of the **File permissions** in Linux template. In the Manage authorization lab, take a screenshot of the Linux command you used. Or, type this command directly into the template.

Step 4: Change file permissions on a hidden file

The research team has archived **.project_x.txt**, which is why it's a hidden file. This file should not have write permissions for anyone, but the user and group should be able to read the file. Use a Linux command to assign **.project_x.txt** the appropriate authorization.

Describe the command you used and its output in the **Change file permissions on a hidden file** section of the **File permissions in Linux** template. Take a screenshot of the Linux command you used. Or, type this command directly into the template.

Step 5: Change directory permissions

The files and directories in the projects directory belong to the **researcher2** user. Only **researcher2** should be allowed to access the drafts directory and its contents. Use a Linux command to modify the permissions accordingly.

Describe the command you used and its output in the **Change directory permissions** section of the **File permissions in Linux template**. Take a screenshot of the Linux command you used. Or, type this command directly into the template.

Step 6: Finalize your document

To finalize the document and make its purpose clear to potential employers, be sure to complete the **Project description** and **Summary** sections of the **File permissions in Linux** template.

In the Project description section, give a general overview of the scenario and what you accomplish through Linux. Write two to four sentences.

In the Summary section, provide a short summary of the previous tasks and connect them to the scenario. Write approximately two to four sentences.

What to Include in Your Response

Be sure to include the following in your completed activity:

- Screenshots of your commands or typed versions of the commands
- Explanations of your commands
- A project description at the beginning
- A summary at the end
- Details on using `chmod` to update file permissions
- Details on checking file permissions with `ls -la`
- Details on interpreting the 10-character string that represents file permissions
- Details on hidden files and directories