# File permissions in Linux

Project description

In this project, you are working as a security professional for a large organization, primarily with their research team. Your role involves ensuring that users within this team have the correct and authorized permissions on the file system, thereby contributing to the overall security of the system. Your tasks involve examining and modifying file and directory permissions to align them with the appropriate access levels and remove unauthorized access.

Check file and directory details

Use the ls -la command

Describe the permissions string

The permissions string is a 10-character string that represents file permissions.

* It is divided into four parts:
  + The first character indicates the type of file (e.g., '-' for regular files, 'd' for directories).
  + The next three characters represent permissions for the owner (user).
  + The following three characters represent permissions for the group.
  + The last three characters represent permissions for others (everyone else).

Change file permissions

Use the chmod command to change file permissions.

* The basic syntax is chmod permissions filename,

Change file permissions on a hidden file

Hidden files and directories in Linux start with a dot (e.g., .hiddenfile).

* To change permissions on a hidden file, use the chmod command as mentioned in step 3, but include the full path to the hidden file.

Change directory permissions

Use the chmod command to change directory permissions.

* Directories need execute permissions for users to access their contents.
* To grant execute permissions to a directory and its subdirectories, use the symbolic mode like chmod +x dirname.

Summary

you can use the ls -la command to check existing permissions, the chmod command to change permissions, and the knowledge of the permissions string to understand and modify access rights



