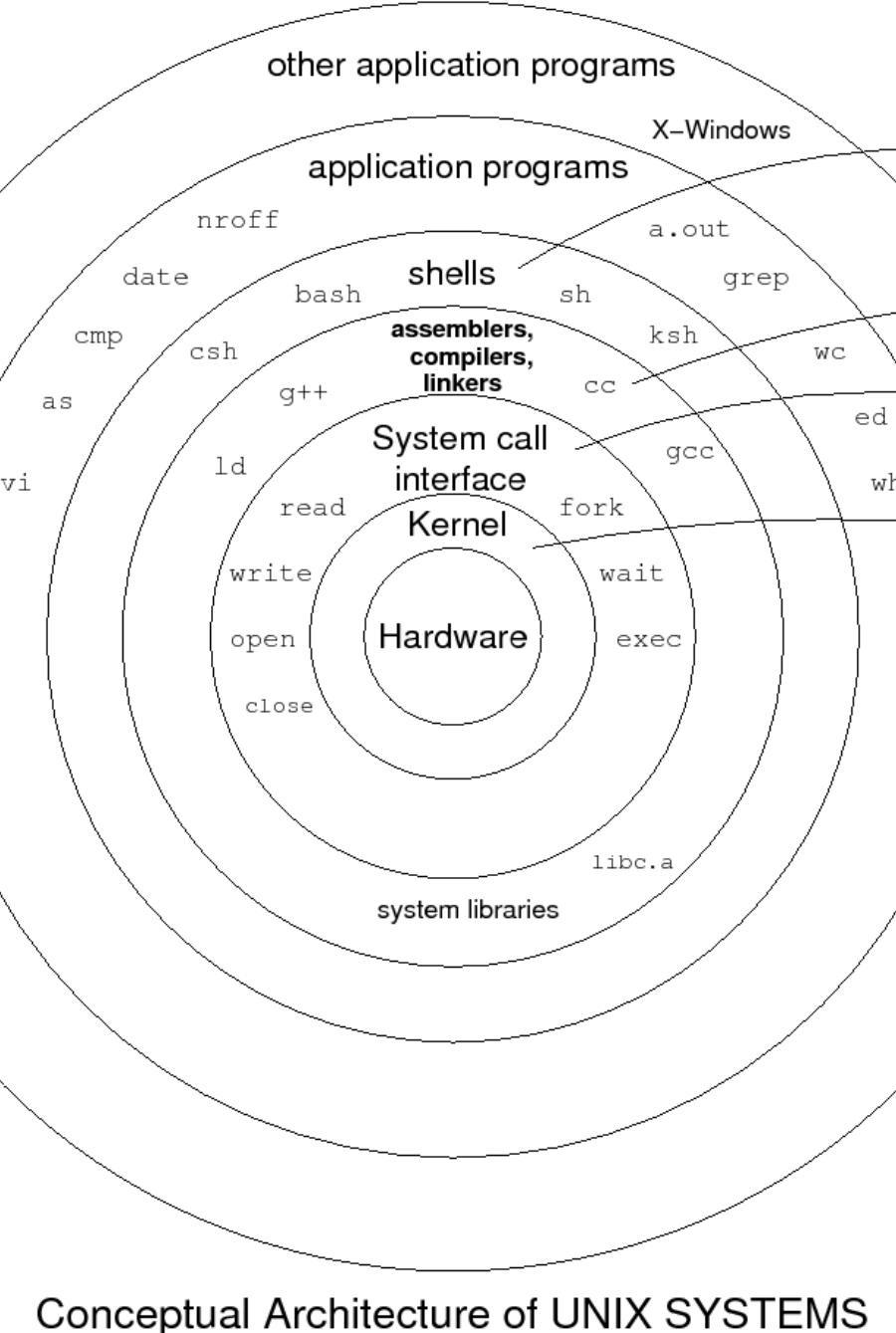


Linux File Handling Commands and chmod command

Learn the essential Linux file handling commands and master the chmod command to manipulate file permissions like a pro.



by Abhi



Introduction to Linux File Handling

Linux file handling is the foundation of effectively managing files and directories in a Linux operating system. By understanding and utilizing various file handling commands, you can navigate, create, edit, and display files with ease.

Navigating the Linux directory structure

Use the `cd` command to change directories and move through the Linux file system. The `ls` command helps you list files and directories, while `pwd` displays the current directory.

```
root@DESKTOP-BVN2F9U:~# ls
cod  file123  kop  snap
root@DESKTOP-BVN2F9U:~# cd cod
root@DESKTOP-BVN2F9U:~/cod# pwd
/root/cod
root@DESKTOP-BVN2F9U:~/cod# ls
lop
root@DESKTOP-BVN2F9U:~/cod# cd ..
root@DESKTOP-BVN2F9U:~# pwd
/root
root@DESKTOP-BVN2F9U:~#
```

```
root@DESKTOP-BVN2F9U:~# ls
cod file123 kop snap
root@DESKTOP-BVN2F9U:~# mkdir cop
root@DESKTOP-BVN2F9U:~# ls
cod cop file123 kop snap
root@DESKTOP-BVN2F9U:~# cd cop
root@DESKTOP-BVN2F9U:~/cop# ls
root@DESKTOP-BVN2F9U:~/cop# cd ..
root@DESKTOP-BVN2F9U:~# ls
cod cop file123 kop snap
root@DESKTOP-BVN2F9U:~# rmdir cop
root@DESKTOP-BVN2F9U:~# ls
cod file123 kop snap
root@DESKTOP-BVN2F9U:~#
```

Creating and removing directories

Effortlessly create new directories using the `mkdir` command and remove them when no longer needed with the `rmdir` command. Organize your files and directories to keep your system well-structured.

```
root@DESKTOP-BVN2F9U:~# touch c2
root@DESKTOP-BVN2F9U:~# rm c1
root@DESKTOP-BVN2F9U:~# rm c2
root@DESKTOP-BVN2F9U:~# ls
cod  cop.txt  file123  kop  snap
root@DESKTOP-BVN2F9U:~# |
```

File Operations in Linux

To create a new file: `touch myfile.txt`

To remove a file: `rm myfile.txt`

To edit a file: `nano myfile.txt`

Be cautious while performing file operations as they can have permanent effects.

How to Run a C File in Linux

Running a C file in Linux can be a bit intimidating at first, but it's actually a simple process once you know the steps. Here's a step-by-step guide to help you get started:

1. Open a terminal. You can usually do this by pressing `Ctrl+Alt+T`.
2. Navigate to the directory of your C file using the `cd` command. For example, if your file is located in the `Documents` folder, you can type `cd Documents` in the terminal.
3. Compile the C file using `gcc`. For example, to compile `myfile.c`, run the following command in the terminal: `gcc myfile.c -o myfile`. This will create an executable file named `myfile`.
4. If the compilation is successful, an executable file will be created with the specified name (e.g., `myfile`). You can check if the file was created by typing `ls` in the terminal. You should see the name of your file in the list of files.
5. Run the executable file by typing `./myfile` in the terminal. This will execute the file and display the output on the screen.

Make sure you have the necessary permissions and GCC installed on your system. If you have any problems or questions, don't hesitate to ask for help!

```
[1]+  Stopped                  cat > rop
root@DESKTOP-BVN2F9U:~# ls
cod  cop.txt  file123  kop  rop  snap
root@DESKTOP-BVN2F9U:~# cat rop
welcome to my world
1234
root@DESKTOP-BVN2F9U:~# cat >> rop
5678
```

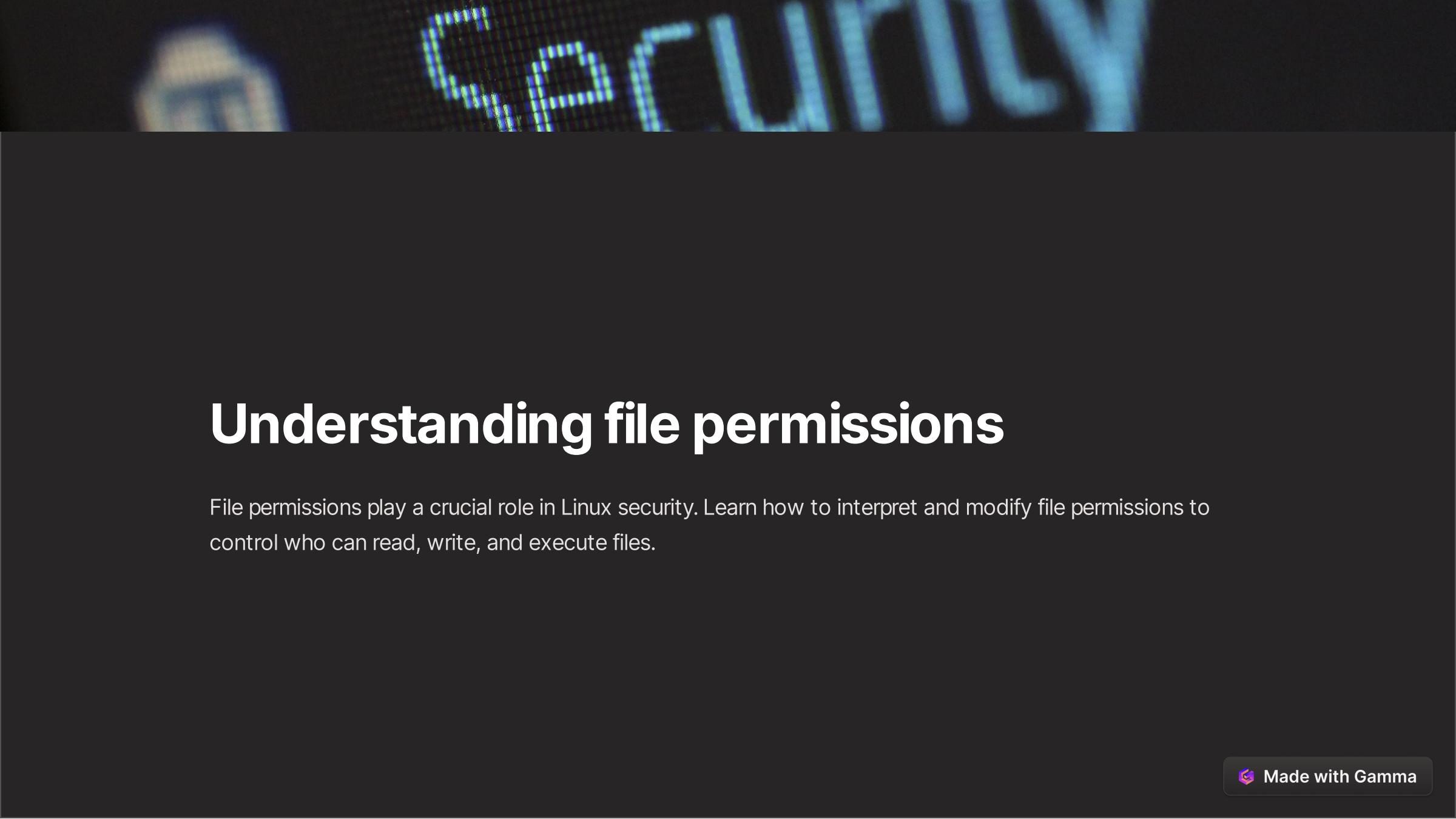
Displaying file contents

When working with files in Linux, it's often useful to quickly view their contents. This can be done using the `cat` command. For example, to display the contents of a file named `myfile.txt`, run `cat myfile.txt`.

The `cat` command can be used for creating and appending a file. Use `cat > myfile.txt` to create and write data into a file, and use `cat >> myfile.txt` to append data to a file..

To read a long file in Linux, use the `more` command. This will show the file one page at a time. For example, to read a file named `myfile.txt` with `more`, run `more myfile.txt`.

These commands are useful for quickly viewing file contents without opening an editor or a viewer.



Understanding file permissions

File permissions play a crucial role in Linux security. Learn how to interpret and modify file permissions to control who can read, write, and execute files.

```
root@DESKTOP-BVN2F9U:~# ls -l
total 12
drwxr-xr-x 2 root root 4096 Sep 15 11:
-rw-r--r-- 1 root root 30 Sep 15 12:
drwx----- 3 root root 4096 Sep 15 10:
root@DESKTOP-BVN2F9U:~# chmod g+w rop
root@DESKTOP-BVN2F9U:~# ls -l
total 12
drwxr-xr-x 2 root root 4096 Sep 15 11:
-rw-rw-r-- 1 root root 30 Sep 15 12:
drwx----- 3 root root 4096 Sep 15 10:
root@DESKTOP-BVN2F9U:~# chmod u=rwx ro
root@DESKTOP-BVN2F9U:~# ls -l
total 12
drwxr-xr-x 2 root root 4096 Sep 15 11:
-rwxrw-r-- 1 root root 30 Sep 15 12:
drwx----- 3 root root 4096 Sep 15 10:
root@DESKTOP-BVN2F9U:~# |
```

Setting file permissions with chmod command

The `chmod` command grants or restricts permissions on Linux files. Master this powerful command to secure your files and strike the right balance between user access and system protection.