

Linux commands

3. Lecture 1.1 - introduction to linux OS



Permission denied ⇒ sudo



Debian = kali

Command	Explanation
<code>sudo + command</code>	To perform commands as admin “root” instead of being a normal user “kali”
<code>sudo su</code>	To always be sudo “super user”
<code>exit</code>	To exit the sudo mode
<code>whoami</code>	To see the current user
<code>pwd</code>	To see the current directory
<code>ls</code>	<i>list</i> - To list all of the included folders and file in the directory
<code>clear</code>	To clear the terminal
<code>ctrl + l</code>	same as clear but it doesn't delete the data in the terminal
<code>cd directory</code>	<i>change directory</i>
<code>cd ..</code>	<i>change directory</i> - return back to the previous directory
<code>cat file</code>	To show the contents of a file



Directories are colored in blue, while files are colored in white.

4. Lecture 1.2 - linux commands

Command	Explanation
<code>nano file</code>	To create a file
Nano is a text editor, like the notepad	
<code>ctrl + O</code> ⇒ <code>write out</code>	To save the edits inside NANO
<code>ctrl + X</code>	To exit the nano text editor
<code>cat fileName</code>	To show the contents of a file
<code>rm file</code>	To <i>remove</i> a file
<code>rm -r directoryName</code>	To <i>remove</i> a directory
<code>mkdir</code>	To <i>make directory</i>
<code>rmdir directoryName</code>	To <i>remove</i> a directory
<code>/</code>	The root path
<code>cp file or dirName destination Folder InThe Same DirPath</code>	To copy a file to a directory located in the same directory
<code>mv file or dirName destination Folder Path</code>	To move a to a directory located in the same directory or to another directory using the absolute path
<code>mv fileName newname</code>	To rename a file
<code>echo "text" > fileName</code>	To Write (add new text and remove the old ones) in a file
<code>echo "text" >> fileName</code>	To Append (add new text while keeping the old ones) in a file

Types of Paths

1. Absolute path

1. Starts with `/`
2. The complete path

2. Relative path

1. A part of the path

5. Lecture 1.3 - linux commands (Network)

Command	Explanation
<code>ifconfig</code>	Displays some information about the network (IP address, etc...)
<code>df -h</code>	Displays some information about the hard disk
<code>free</code>	Displays some information about the memory space
<code>ps aux</code>	Displays some information about the processor
<code>kill PID</code>	To kill a working operation after doing <code>ps aux</code>
<code>apt install toolName</code>	To install an application (a store)
<code>snap install toolName</code>	To install an application (a store) (should be installed firstly using apt)
<code>dpkg -i toolName</code>	To <i>download a package</i> . To install a downloaded package with an extension <code>.deb</code>
<code>snap list</code>	Displays contents of snap
<code>sudo !!</code>	To repeat the previous command with sudo permissions
<code>ls -lah</code>	To see the permissions of files and folders
<code>chmod 777 test.txt</code>	To change the permissions of a file or a folder
<code>chmod +x test.txt</code>	To add execute permission to a file xyz.txt
<code> </code>	To redirect the output to another command use

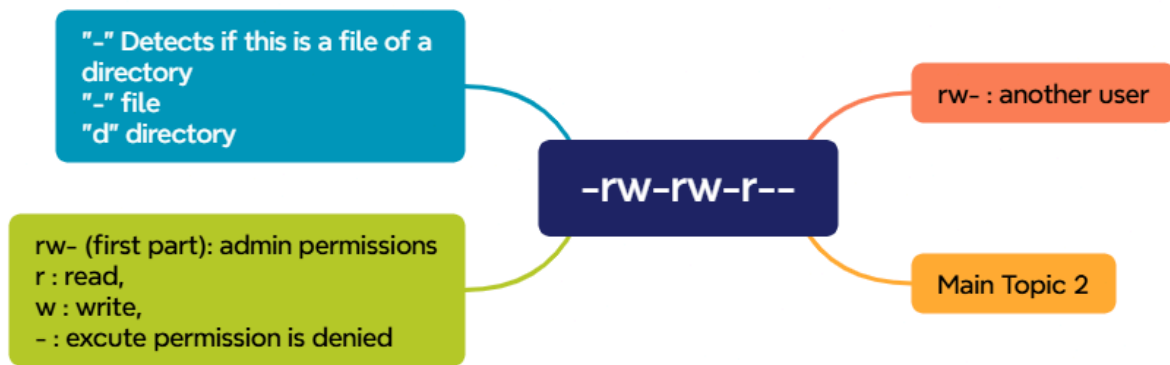
Command	Explanation
<code>cat test.txt \ grep "text"</code>	To get a word from a file
<code>cat test.txt \ wc</code>	To get the number of lines, words and characters in a file
<code>more</code>	can be used instead of <code>cat</code>
<code>.</code> before the file name	To hide a file or a folder
<code>name *</code> or <code>name ./*</code>	To know the type of files
<code>du DIRECTORYNAME</code>	To know the size of a directory
<code>ssh -p PORTNUMBER USERNAME@DOMAIN</code>	ssh

Permissions for files

1. Execute → 1 → x
2. Write → 2 → w
3. Read → 4 → r

If you need Read and Write $\Rightarrow 2 + 4 = 6$, and so on.

- $x + r = 5$
- $w + e = 3$
- $r + w = 6$
- $x + w + r = 7$



Presented with xmind AI

Find

```
find [STARTINGDIRECTORY] [options] [expression]
```

```
find inhere -type f -size 1033c -readable ! -executable
```

find inhere → Search inside the inhere directory.

-type f → Look for files only.

-size 1033c → Find files that are exactly 1033 bytes (c stands for bytes).

-readable → Ensure the file is human-readable.

! -executable → Exclude executable files.