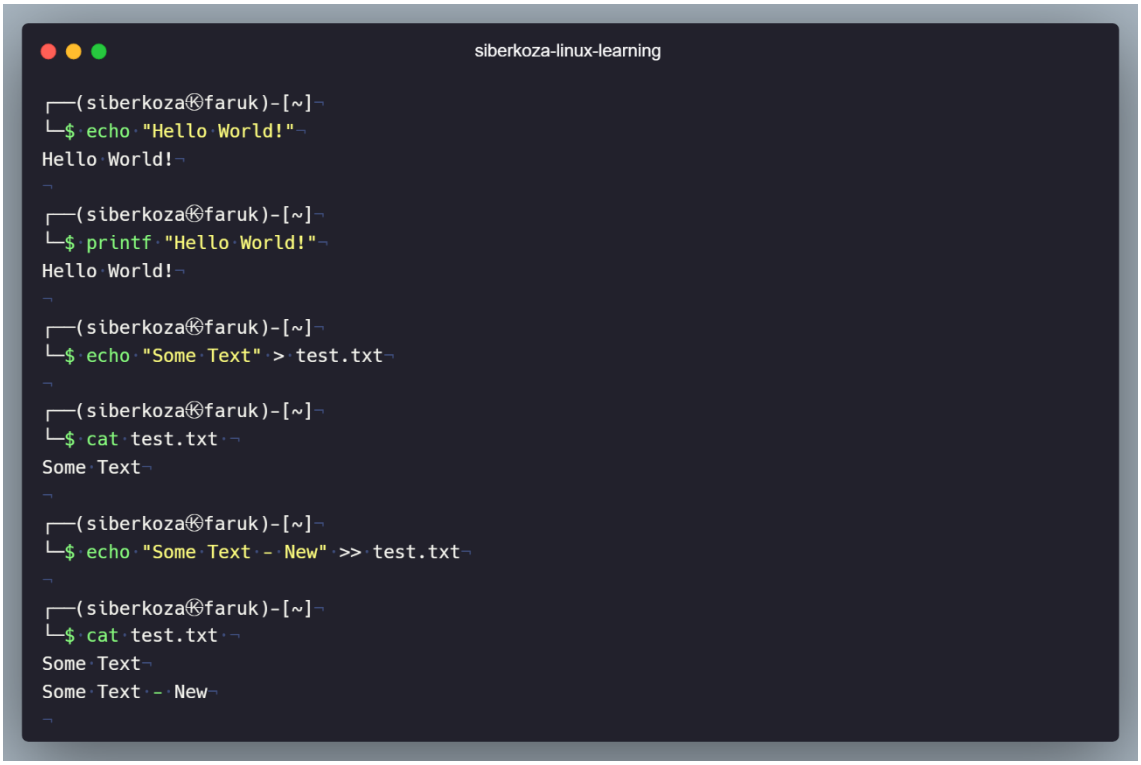
LINUX COMMANDS

Print Commands in Terminal: echo – printf

echo and printf

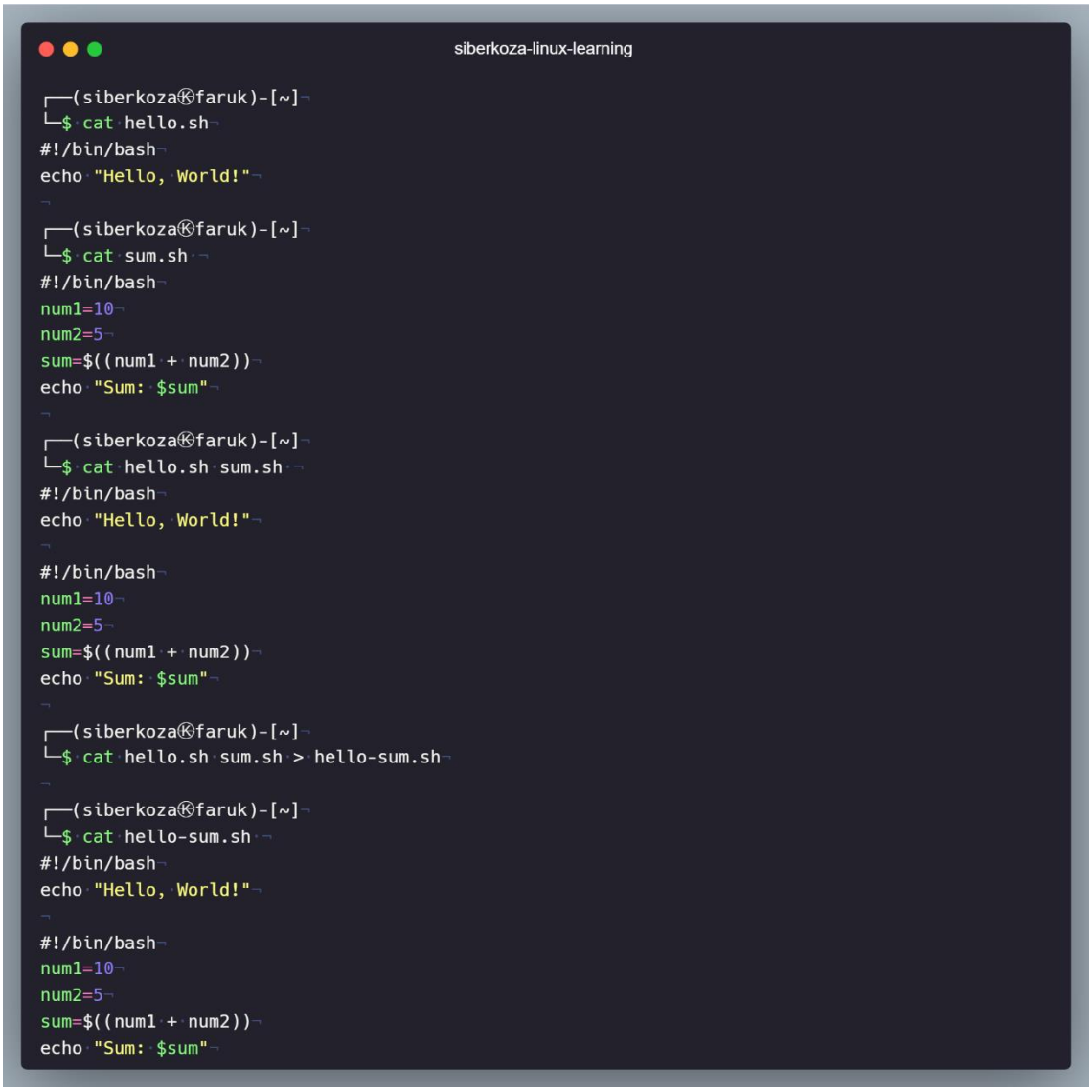
Command	echo [option] [string] / printf [option] [string]
Description	The echo and printf commands are used to generate text output in the terminal. The echo command can be used to print simple text to the screen, while the printf command offers more complex formatting options. The ">" operator is used to print to a file, The ">>" operator is used to append to the end of the current file.



Commands to View File Contents: cat - less - more - head - tail

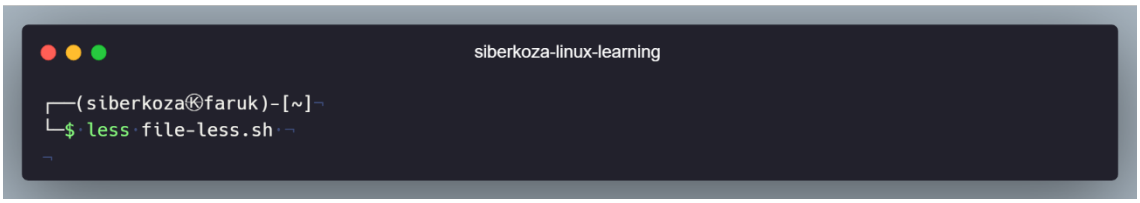
cat

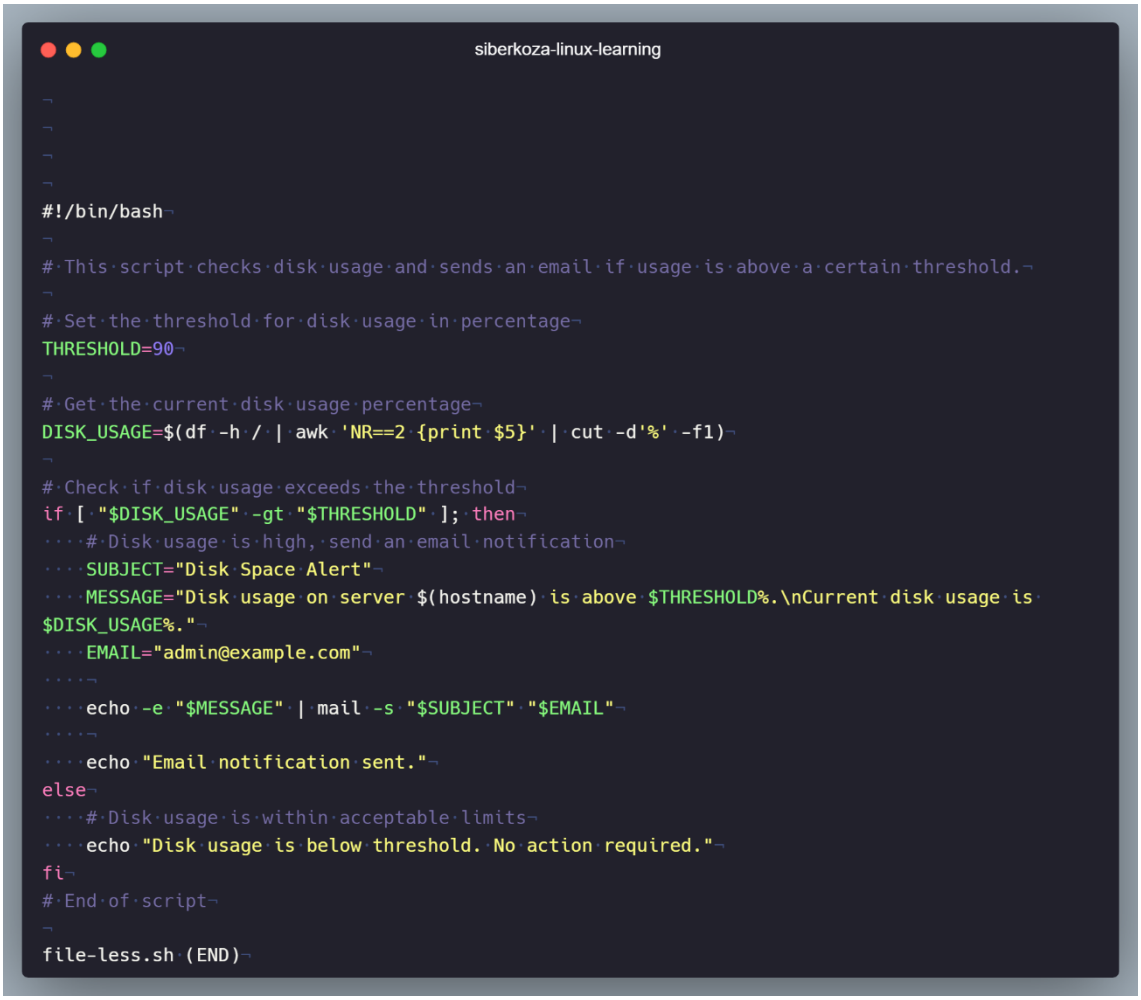
Command	cat
Usage Methods	cat [options] filename cat file1 file2 cat file1 file2 > newfile
Description	The “cat” command combines the contents of one or more files and prints them on the screen. It is often used to display the contents of short files.



less

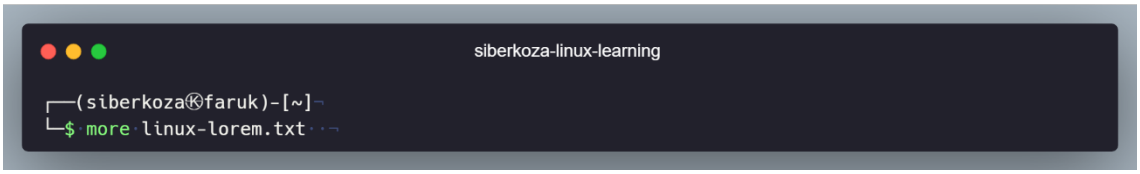
Command	less
Usage Methods	less [options] filename
Description	The “less” command displays the contents of the file page by page to fit the size of the screen. It may be more convenient for analysing long files, because the user can scroll up and down at will.





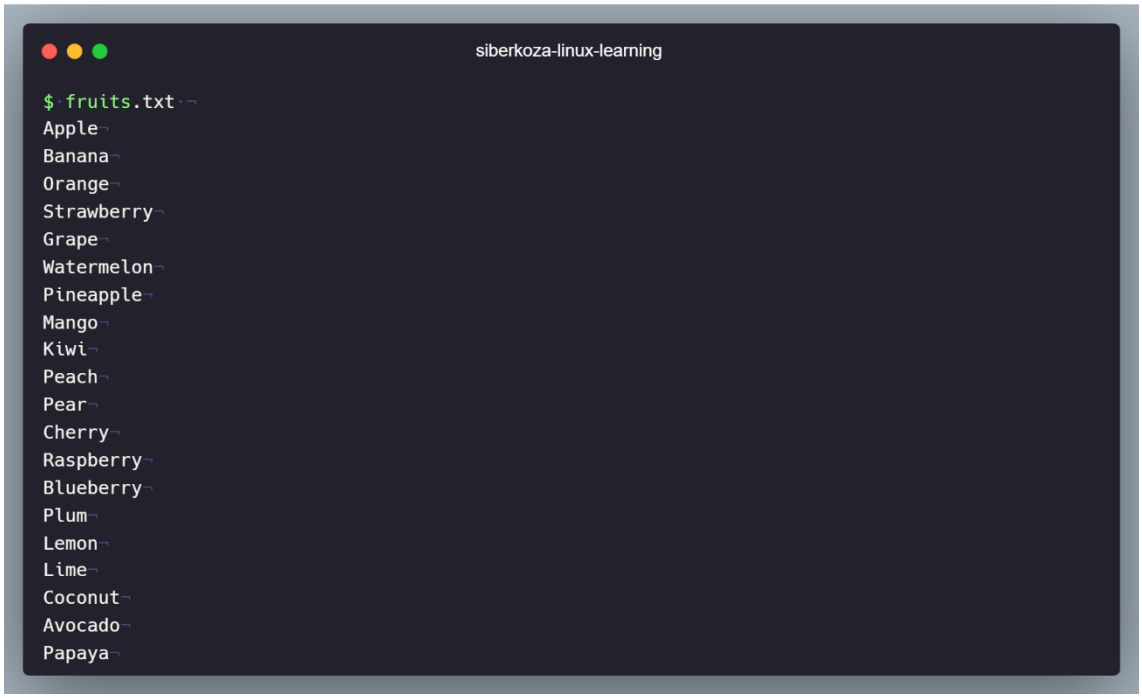
more

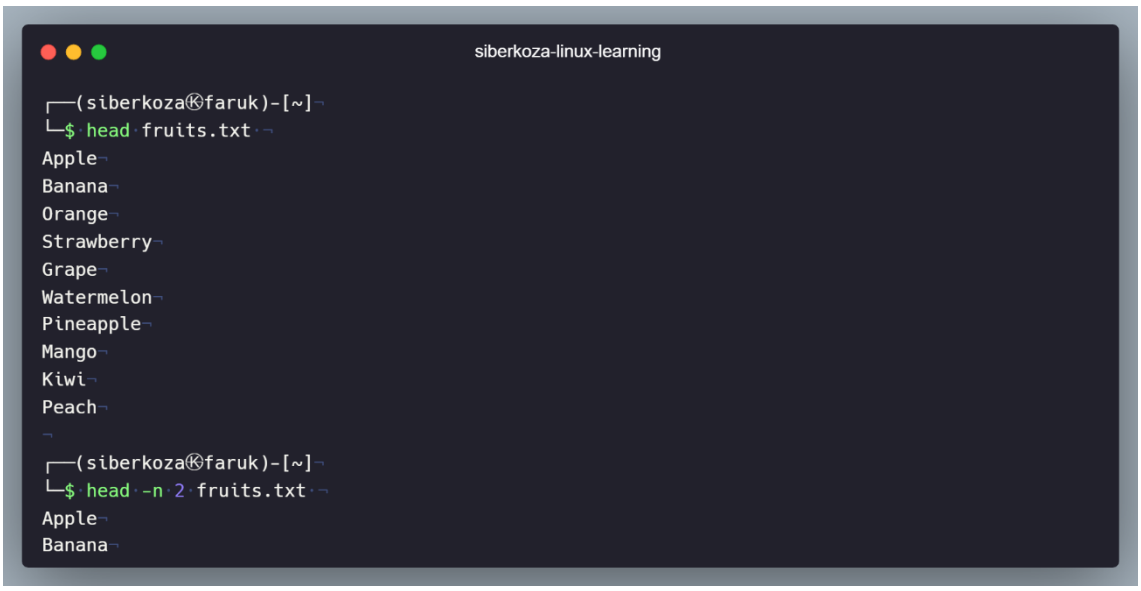
Command	more
Usage Methods	more [options] [num] [+/pattern] [+linenum] [filename]
Description	The “more” command displays the contents of the file page by page to fit the size of the screen. It works like “less” but without the scroll-back feature.



head

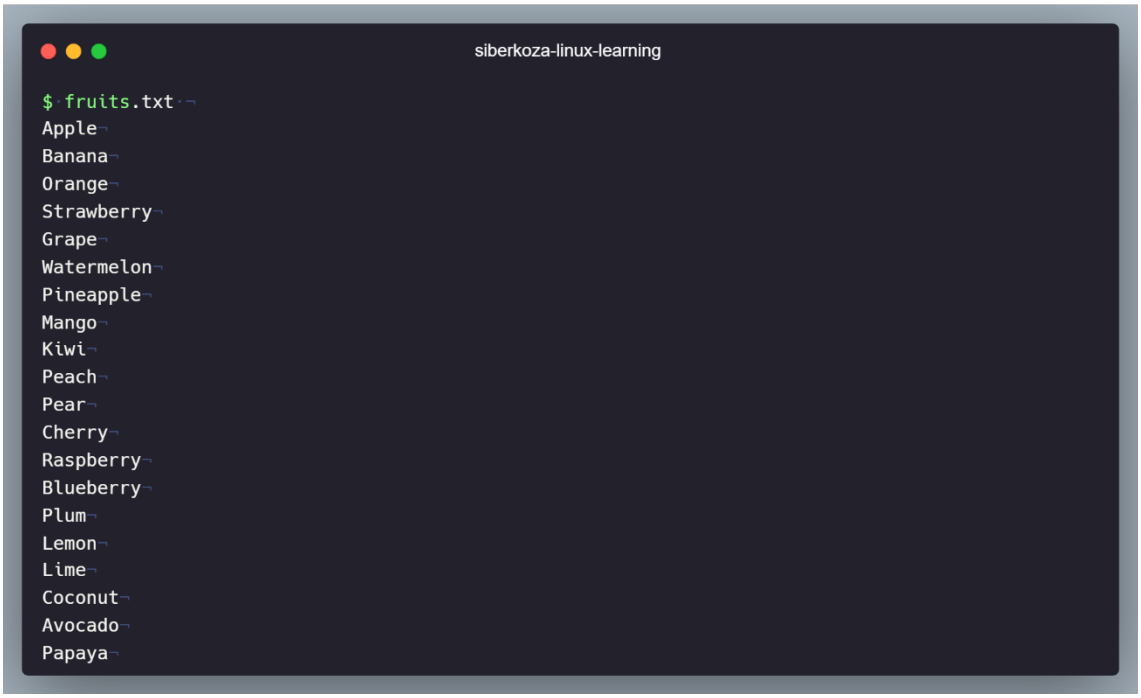
Command	head
Usage Methods	head [options] [filename]
Description	The “head” command displays the head of a file. By default, it displays the first 10 lines.

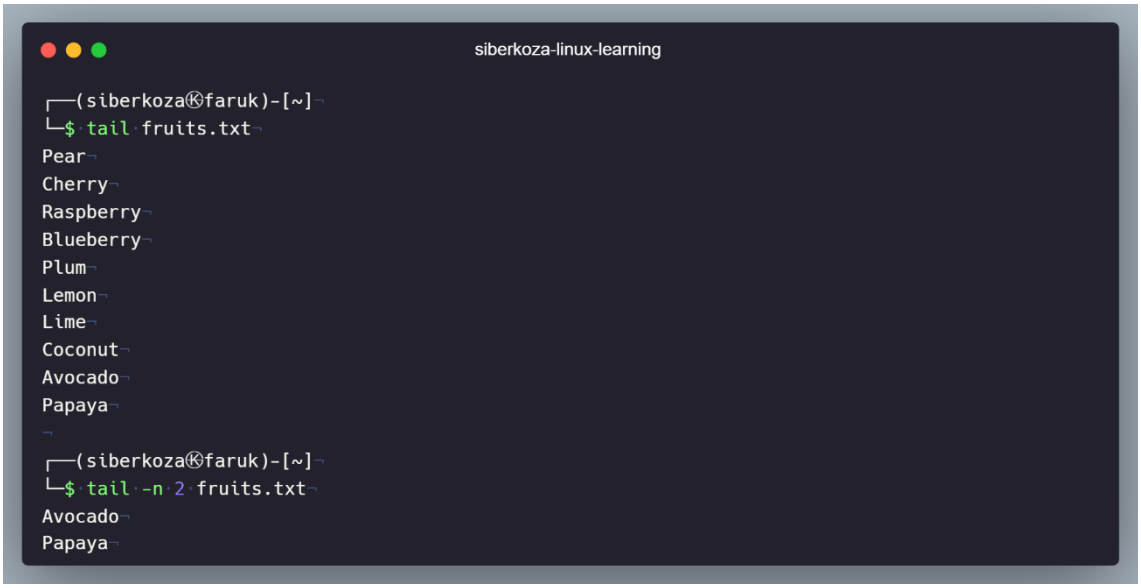




tail

Command	tail
Usage Methods	tail [options] [filename]
Description	The “tail” command displays the last part of a file. By default, it displays the last 10 lines.

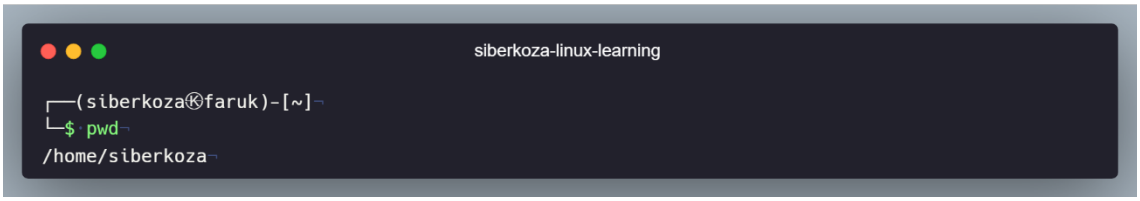




Basic Linux Commands for File and Directory Operations: pwd - cd - ls - touch - file - cat - less - cp - mv - mkdir - rmdir - rm - find - cut - paste - head - tail - expand and unexpand - join and split - sort - tr - uniq (unique) - wc - nl - grep - vim - nano

pwd

Command	pwd
Description	The “pwd” command shows the full path to the user's current (working) directory.

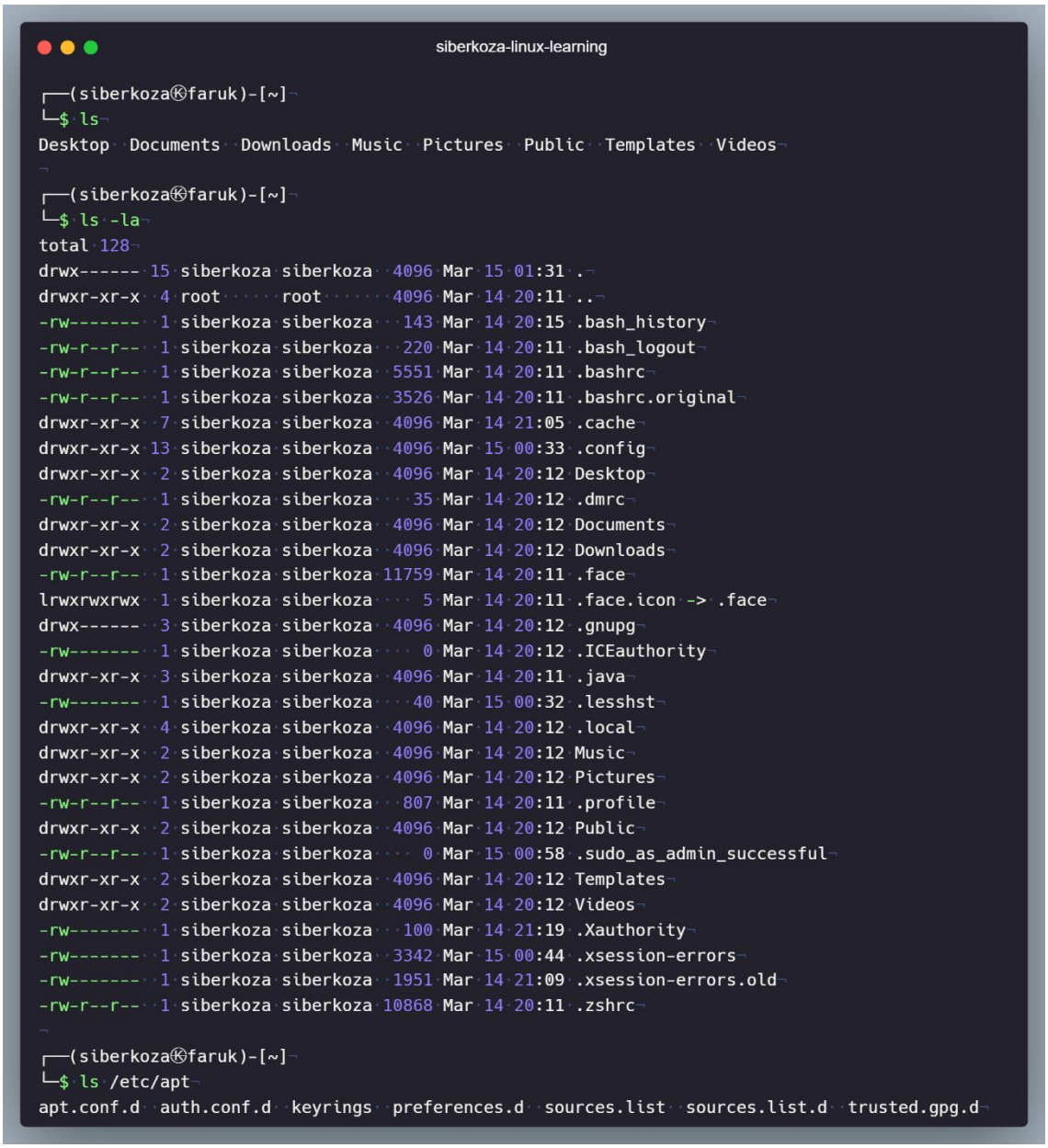


cd

Command	cd
Description	The “cd” command is used to change the user's current working directory. . (current directory): Shows the current directory. .. (parent directory): Switches to a parent directory of the current directory. ~ (default directory): Switches to the default directory. "e.g.: home/user" - (old directory): Returns to the previous directory / (home directory): Switches to the main directory

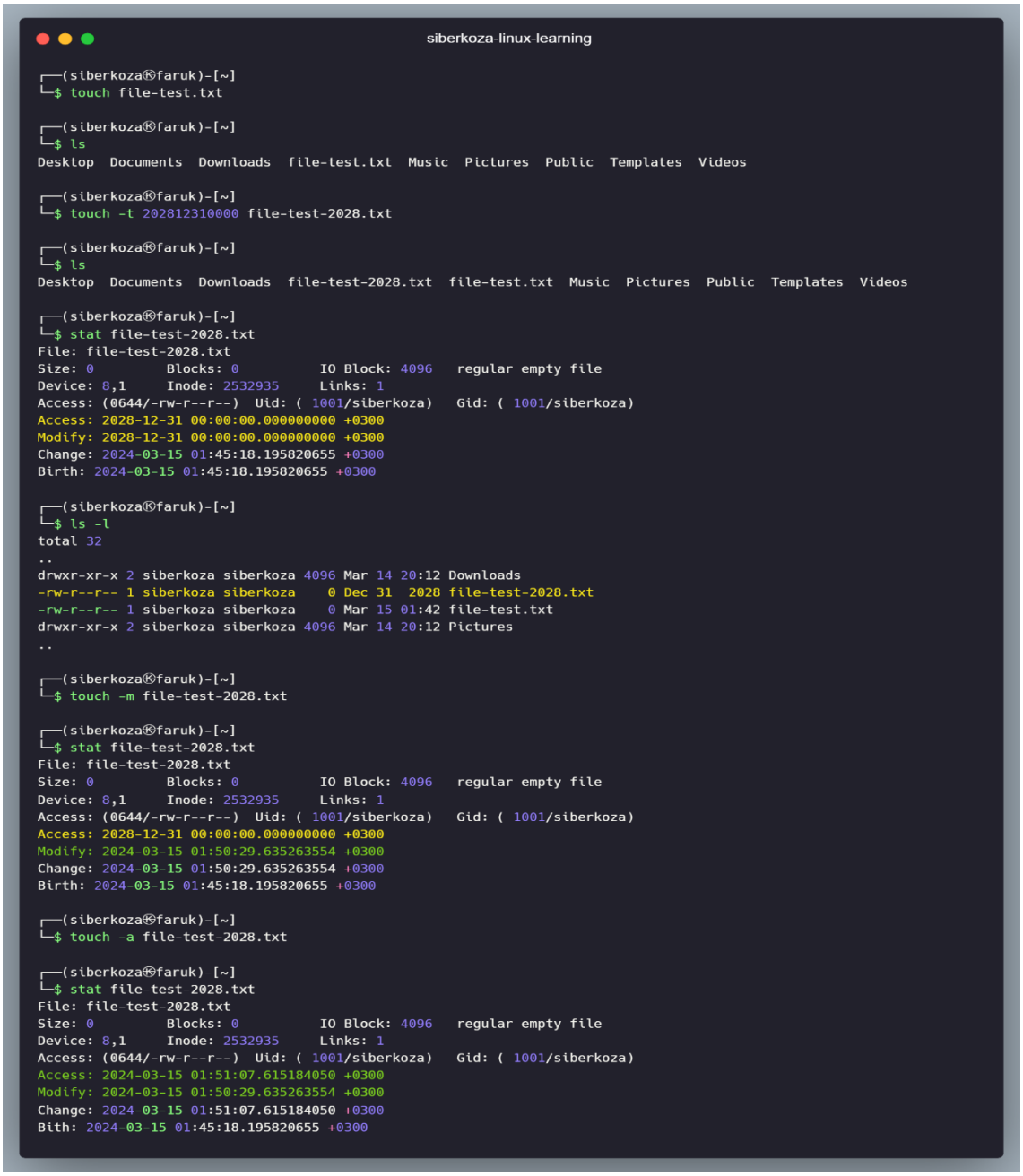
ls

Command	ls
Description	The “cd” command is used to change the user's current working directory. ls -R: Lists the contents of the directory in a branched manner. ls -r: Lists in reverse order when sorting. ls -t: Sorts by modification time, newest first. ls -a: Also shows hidden files. ls -l: Provides long format output.



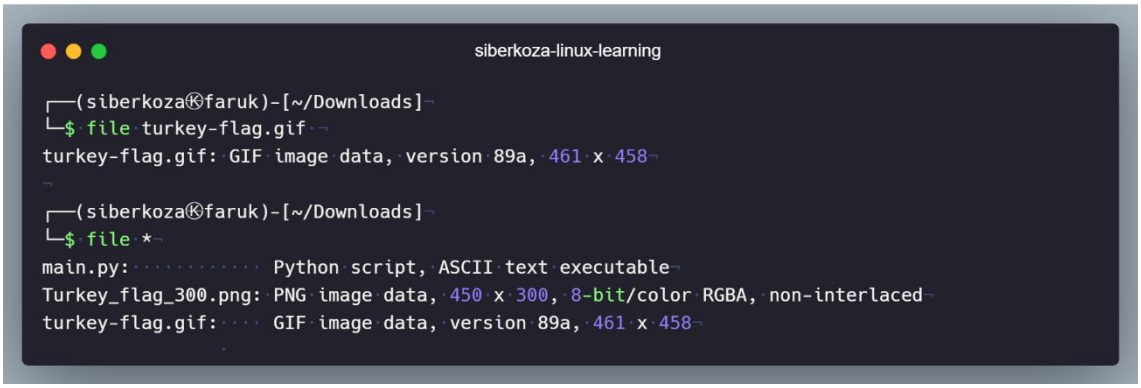
touch

Kullanim	touch
Usage Methods	touch [options] filename touch file1 file2
Aciklama	The “touch” command is used to create a file and update the modification time of the file.



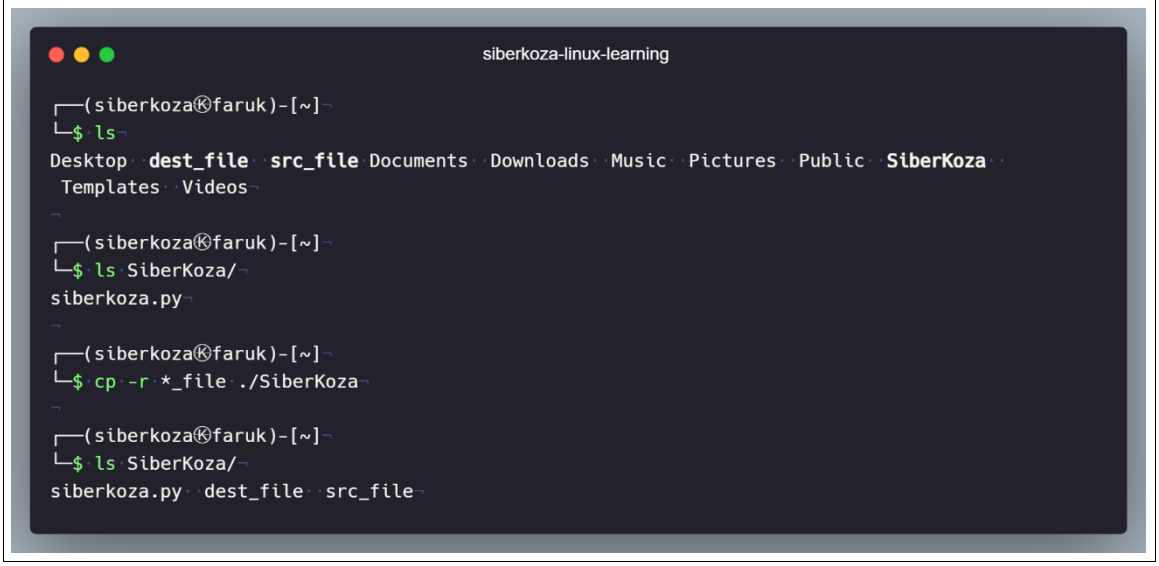
file

Command	file
Usage Methods	file [options] filename file *
Description	The “file” command analyses the contents of the file to determine its type and provides this information to the user.



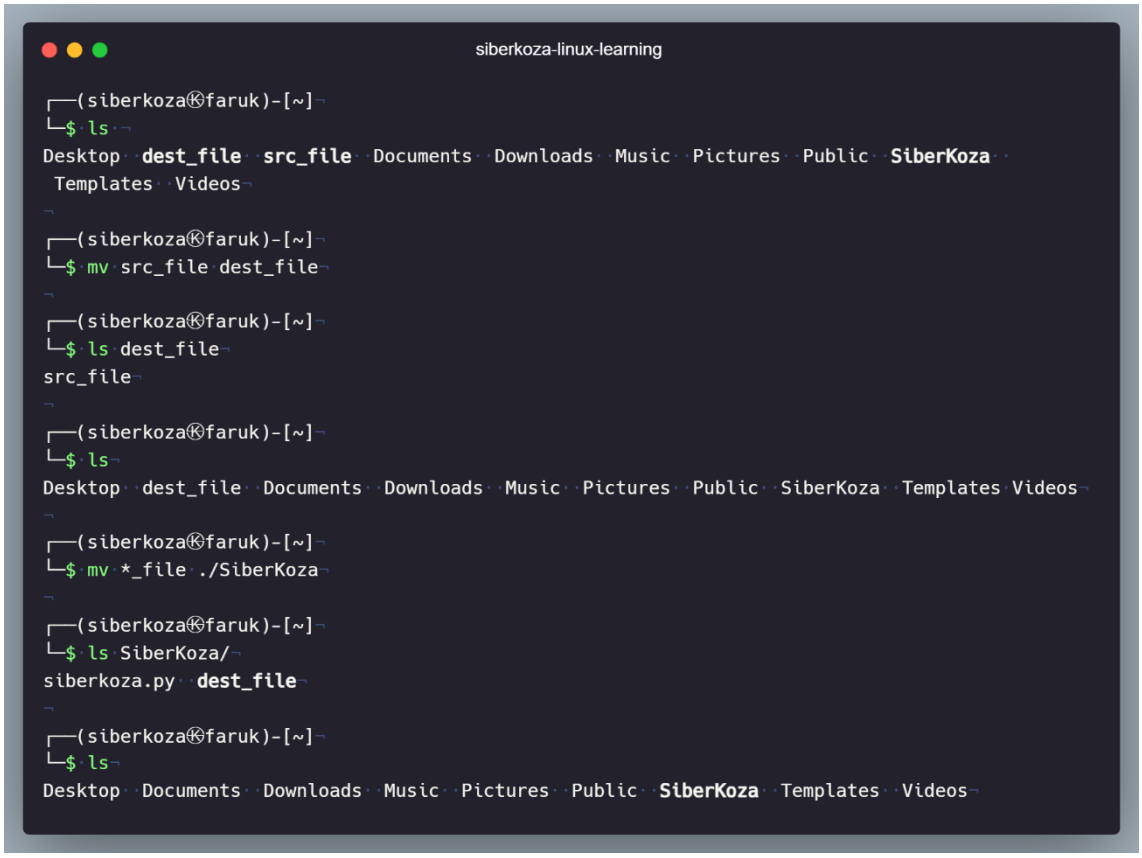
cp

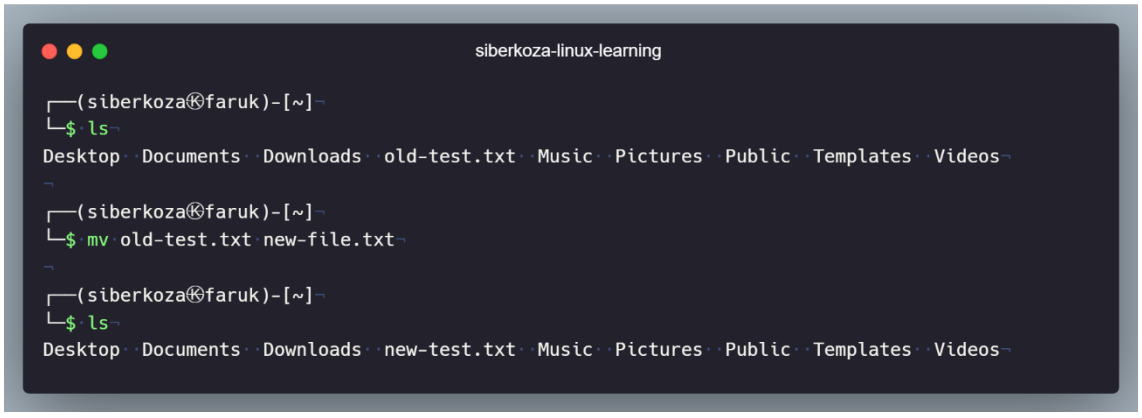
Command	cp
Usage Methods	cp [options] [source_file] [destination]
Description	The “cp” command is a command used to copy files and directories.



mv

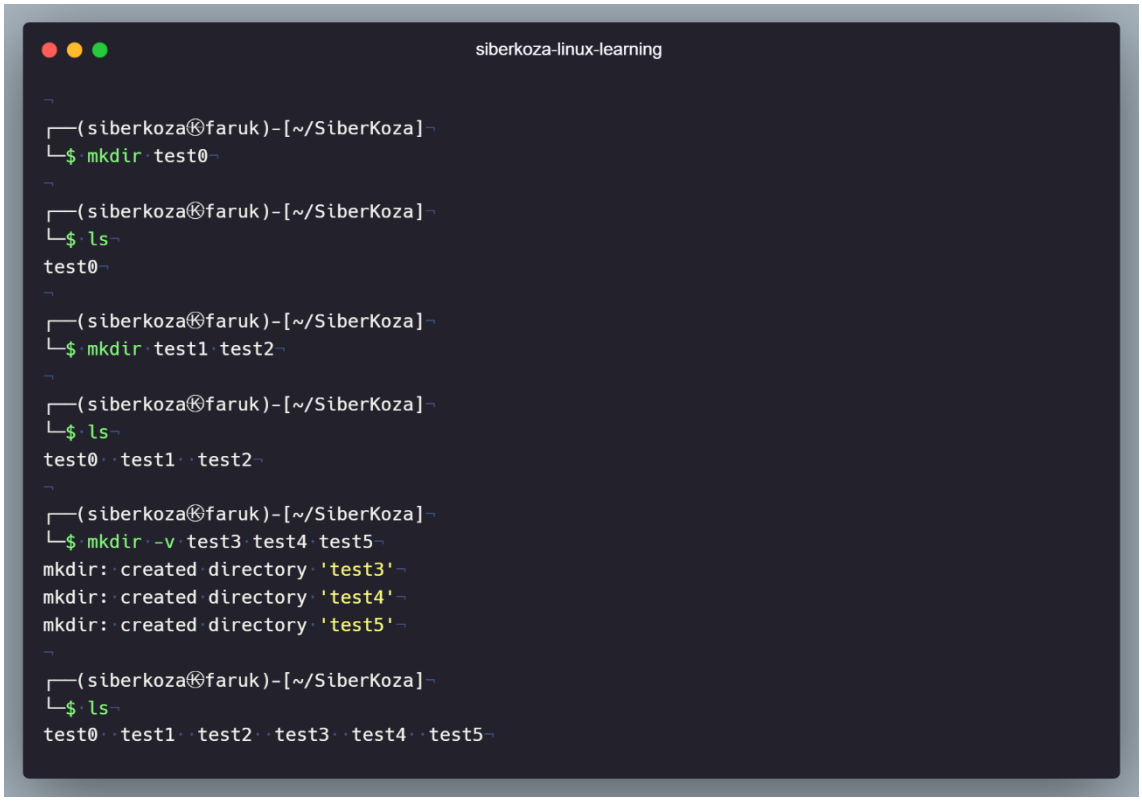
Command	mv
Usage Methods	mv [options] [source_file] [destination_file]
Description	The “mv” command is used to move or rename files and directories.





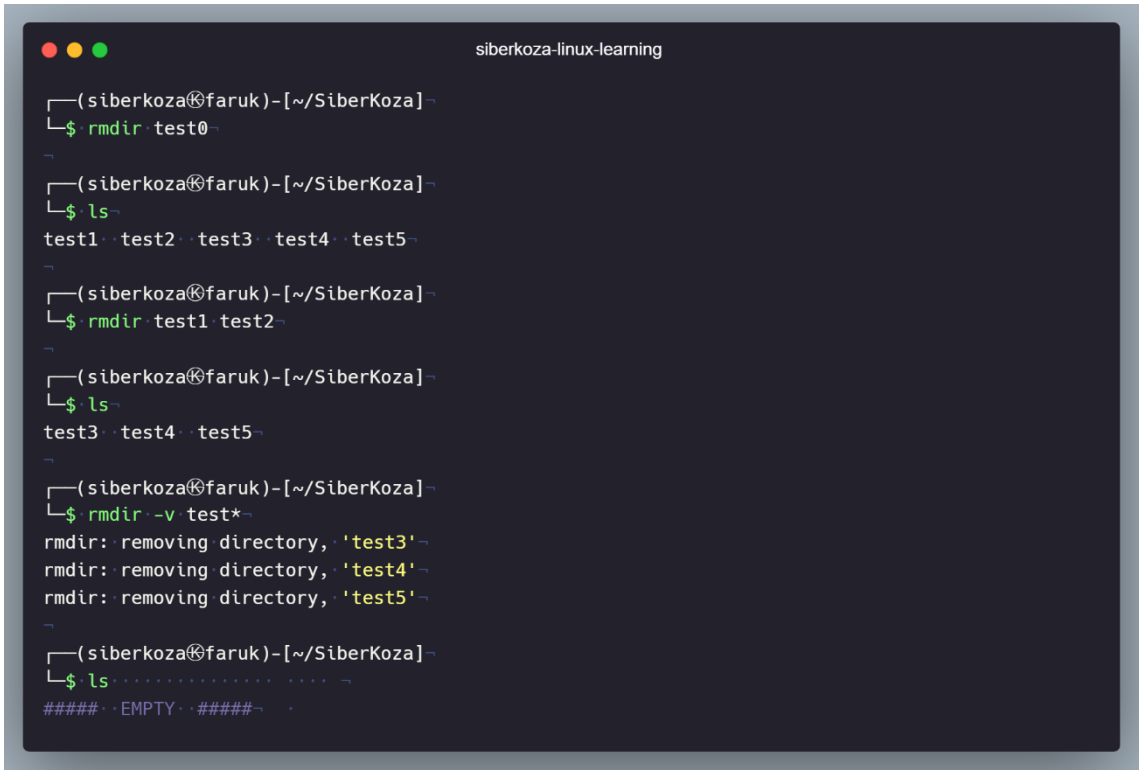
mkdir

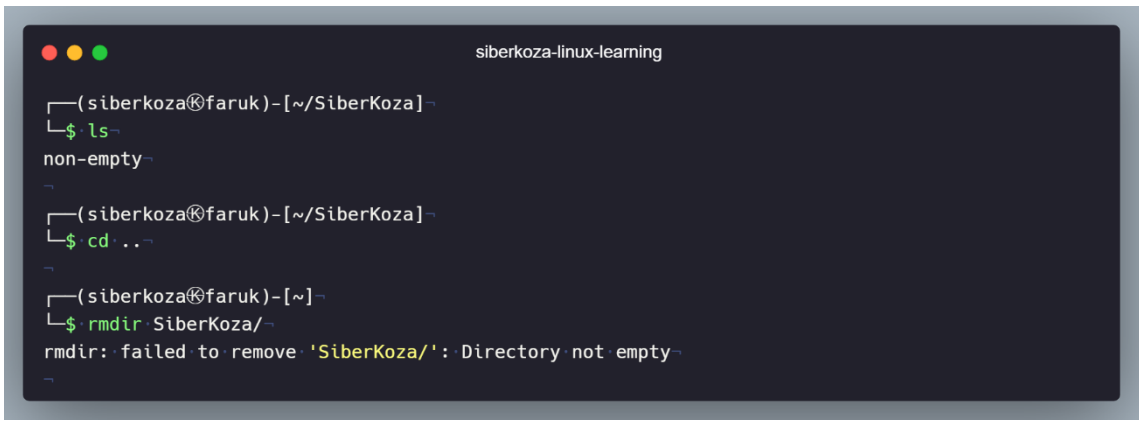
Command	mkdir
Usage Methods	mkdir [options] [directory_name]
Description	The “mkdir” command is used to create new directories.



rmdir

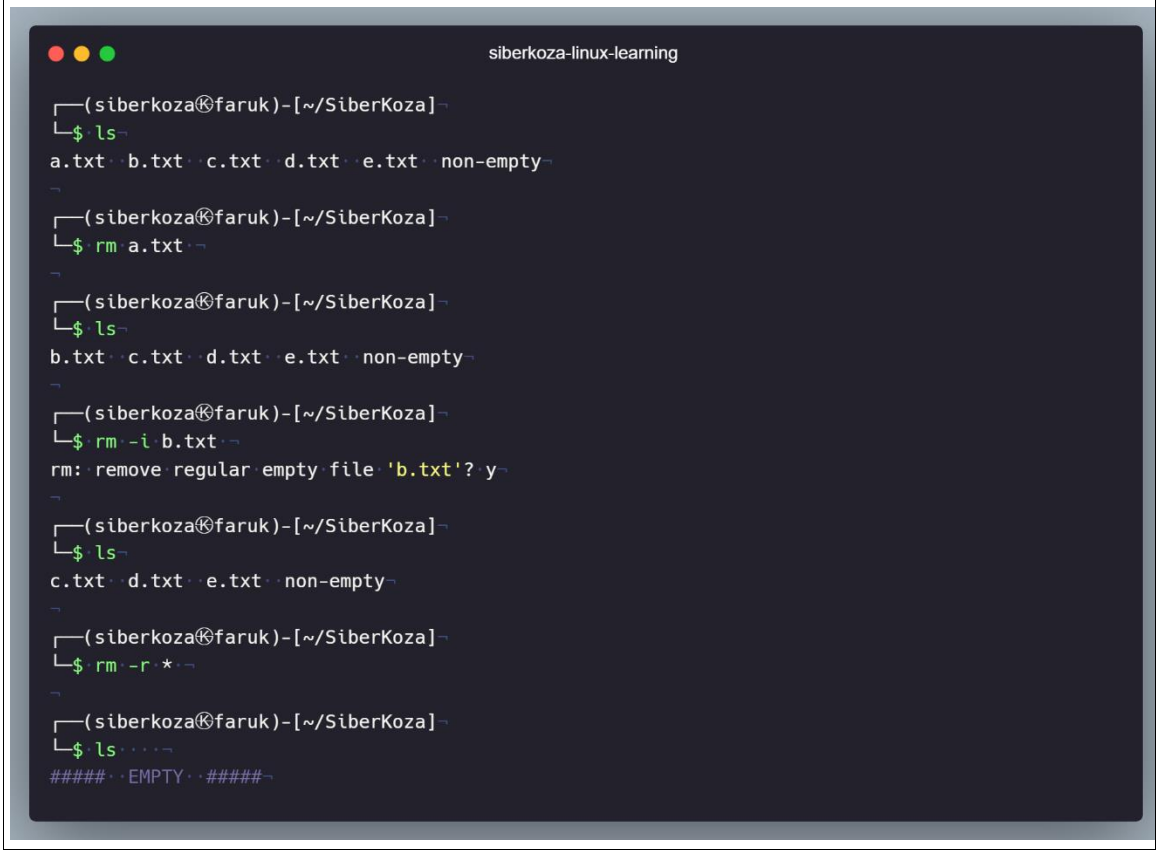
Command	rmdir
Usage Methods	rmdir [options] [directory]
Description	The “rmdir” command is used to delete an empty directory. It cannot delete non-empty directories.





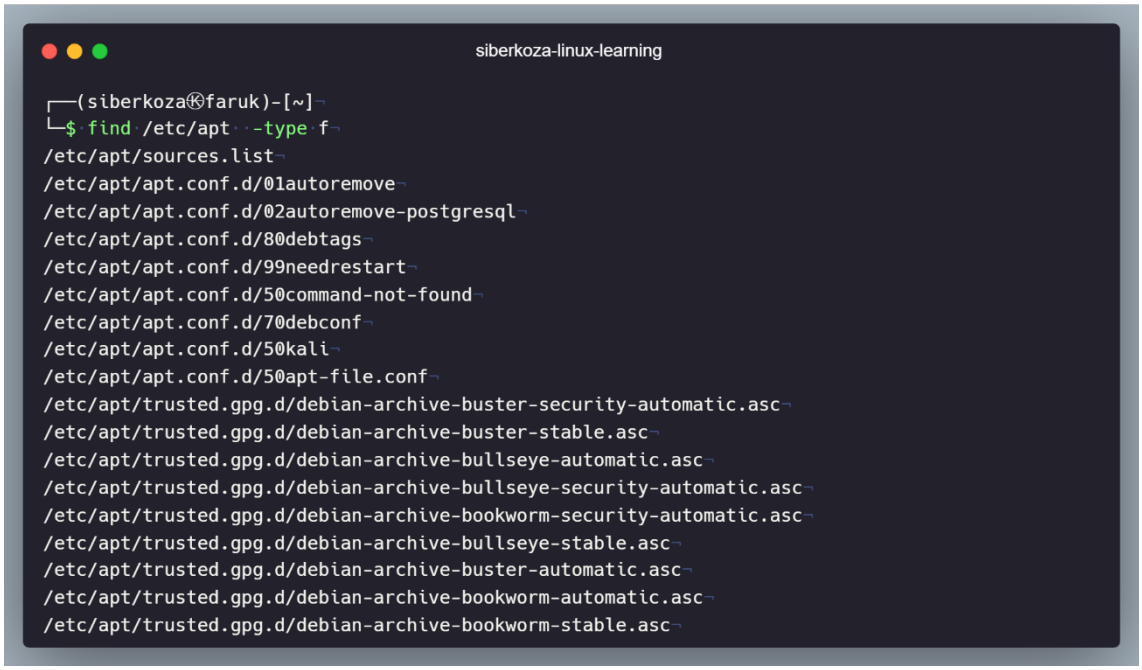
rm

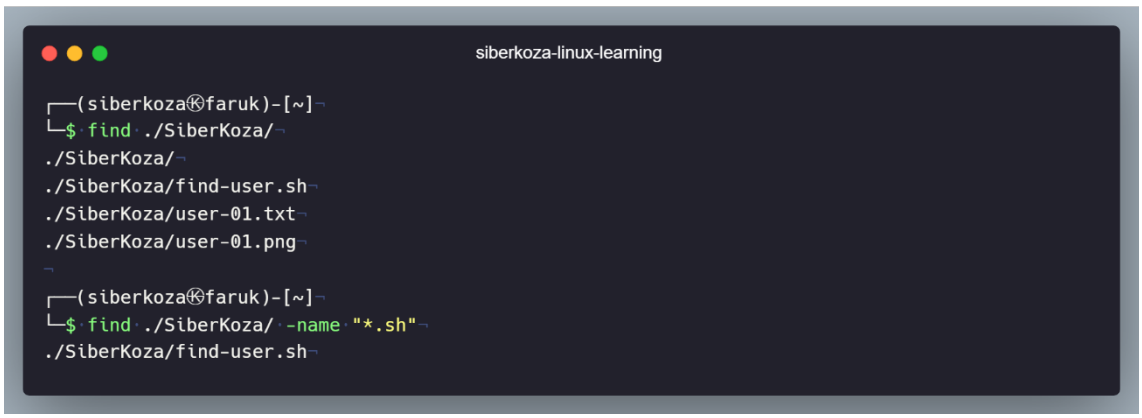
Command	rm
Usage Methods	rm [options] [directory]
Description	The “rm” command is used to delete files and directories. • -i, --interactive: To ask for confirmation before deletion. • -f, --force: Makes deletion more difficult, does not ask for confirmation. • -r, -R, --recursive: Deletes directories and their contents. • -v, --verbose: Show detailed output during the operation.



find

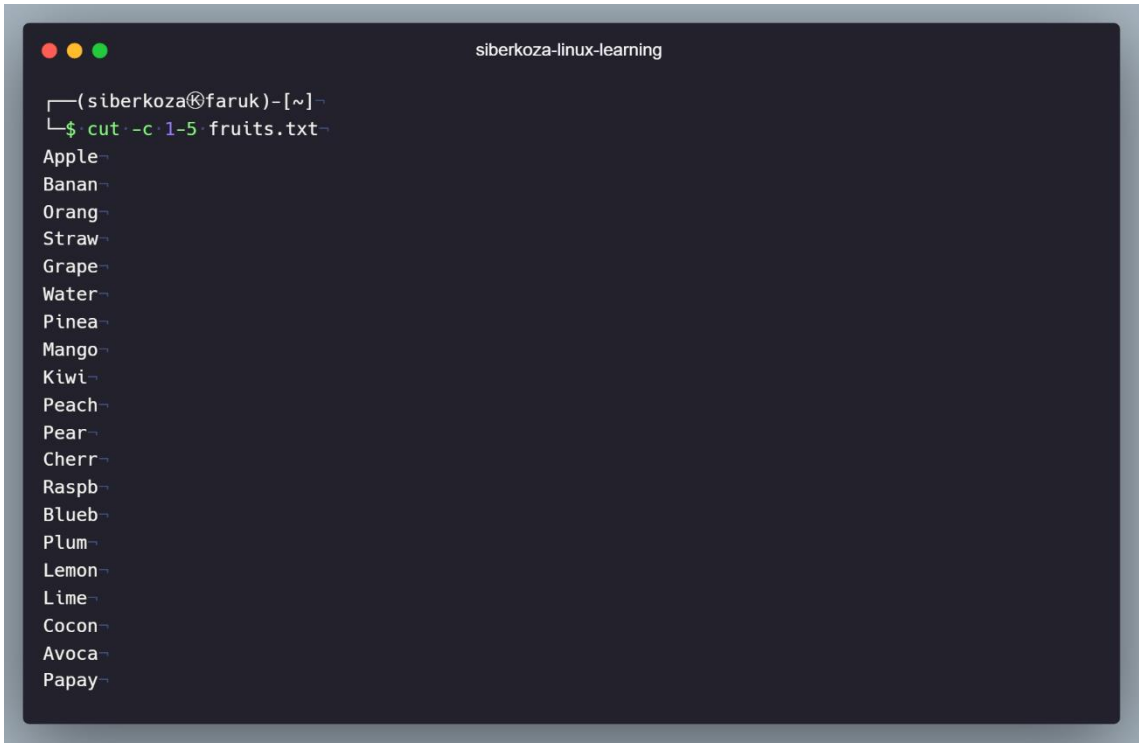
Command	find
Usage Methods	find [path] [options] [expression]
Description	The find command is used to search for files and directories according to certain criteria.

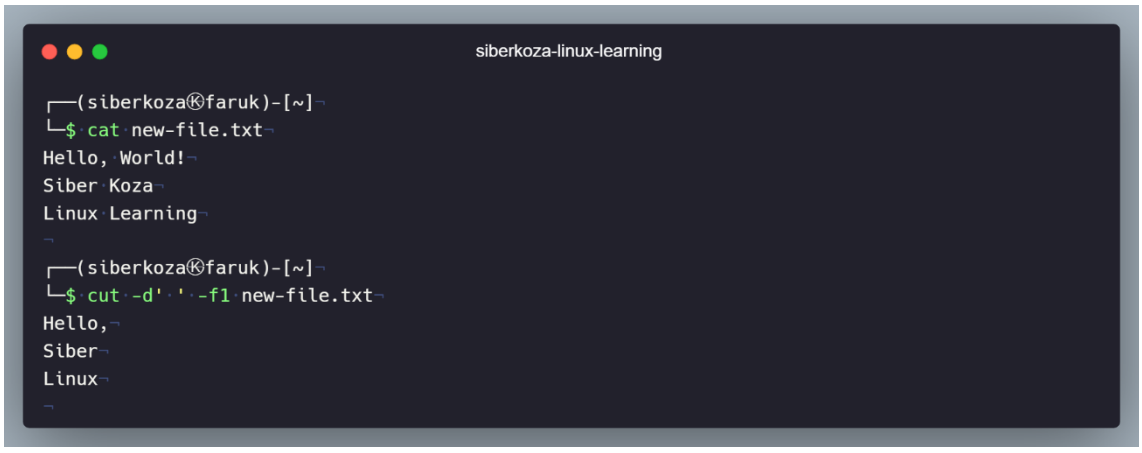




cut

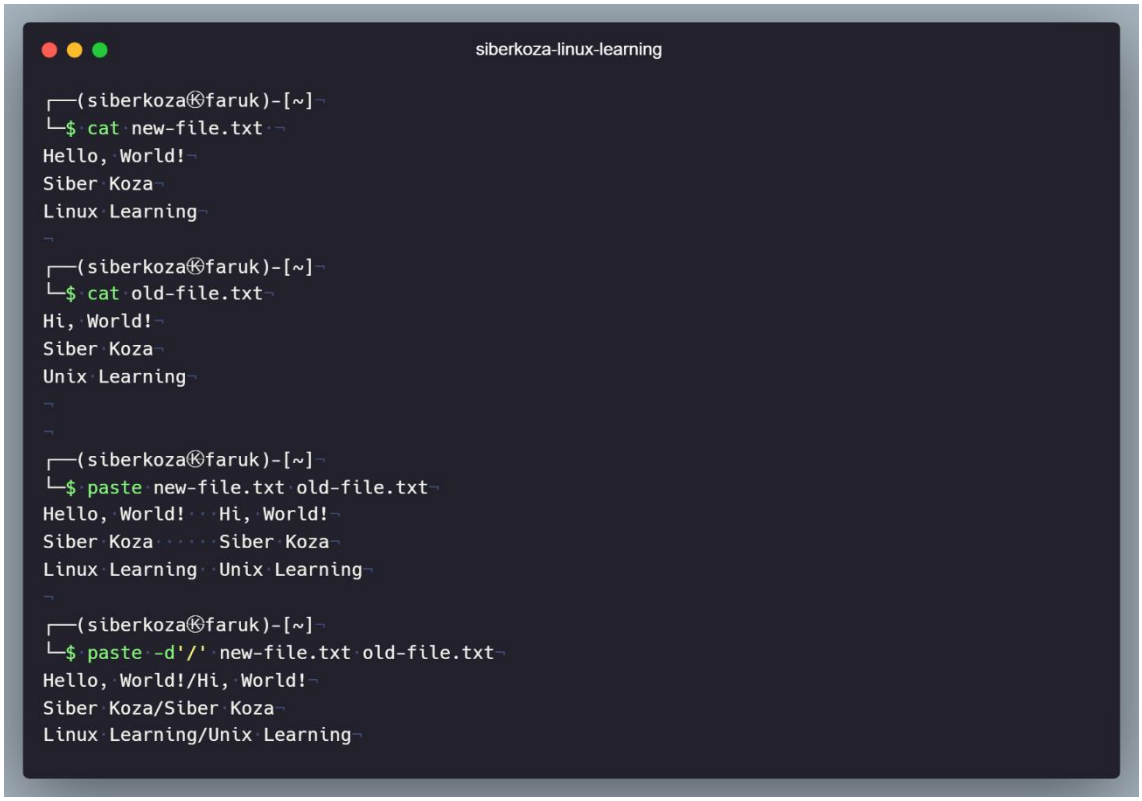
Command	cut
Usage Methods	cut [options] [file]
Description	The “cut” command is used to cut specific sections from lines.





paste

Command	paste
Usage Methods	paste [options] [file1] [file2]
Description	The paste command is used to merge the contents of files.

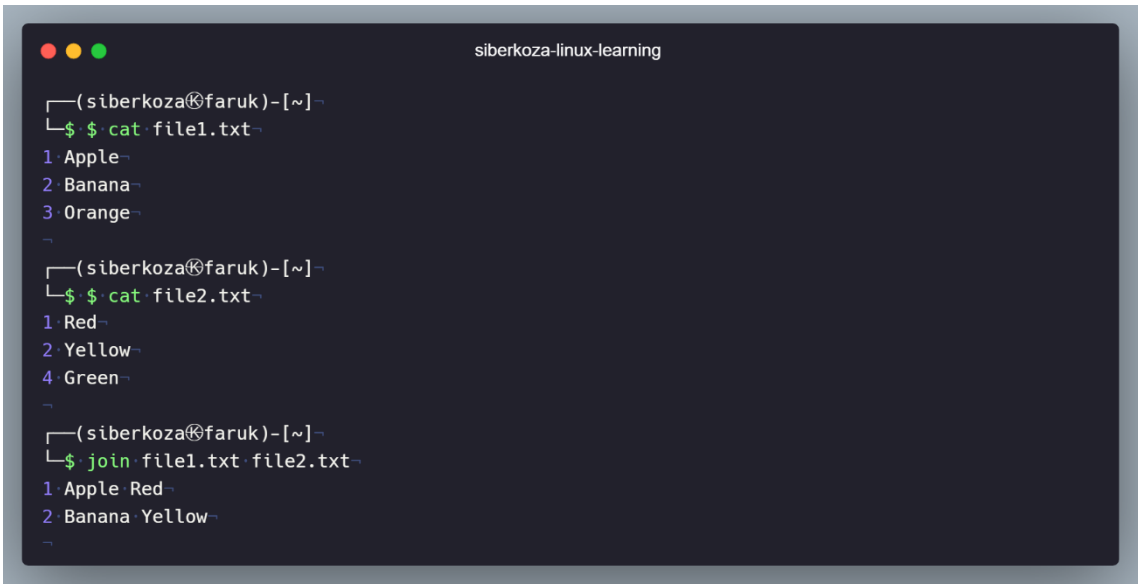


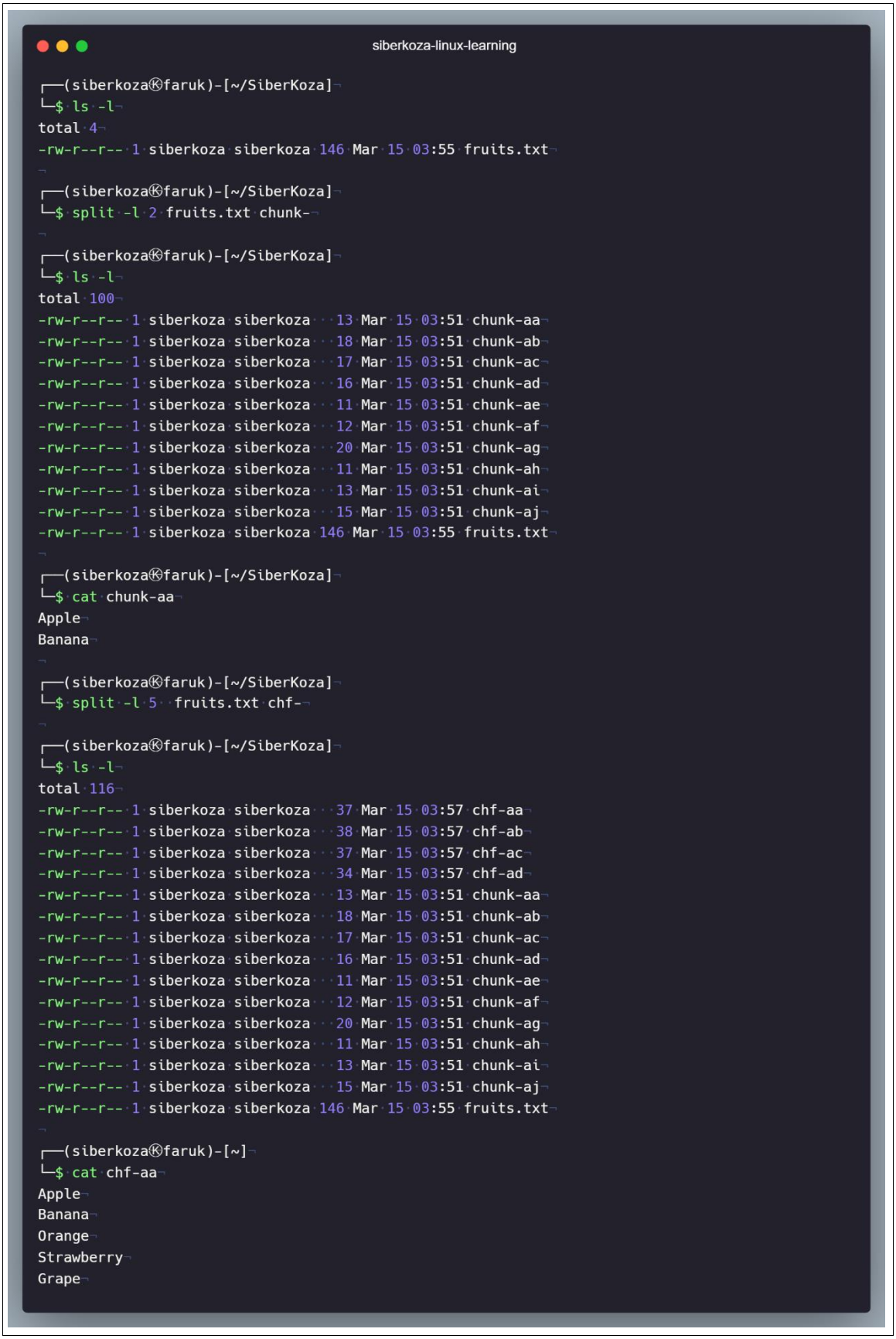
expand and unexpand

Command	expand / unexpand
Usage Methods	expand [filename] unexpand [filename]
Description	The "expand" command is used to convert tab characters in a file to spaces. The "unexpand" is used to convert consecutive spaces in a file to tab characters.

join and split

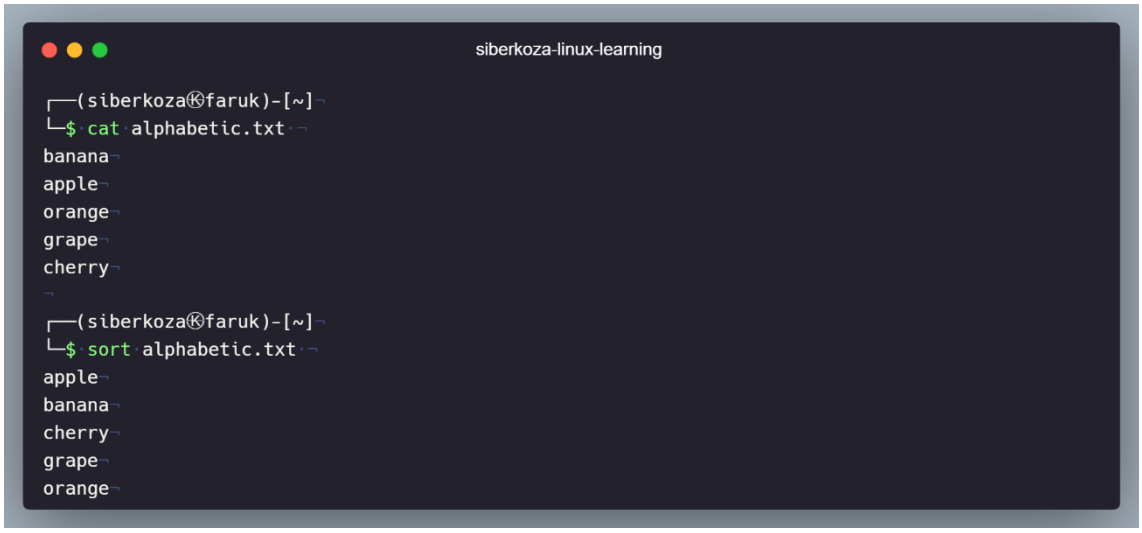
Command	join / split
Usage Methods	join [file1] [file2] split [options] [filename]
Description	The “join” command merges two files according to their common areas. The “split” command splits a file according to a certain size or a certain number of lines.

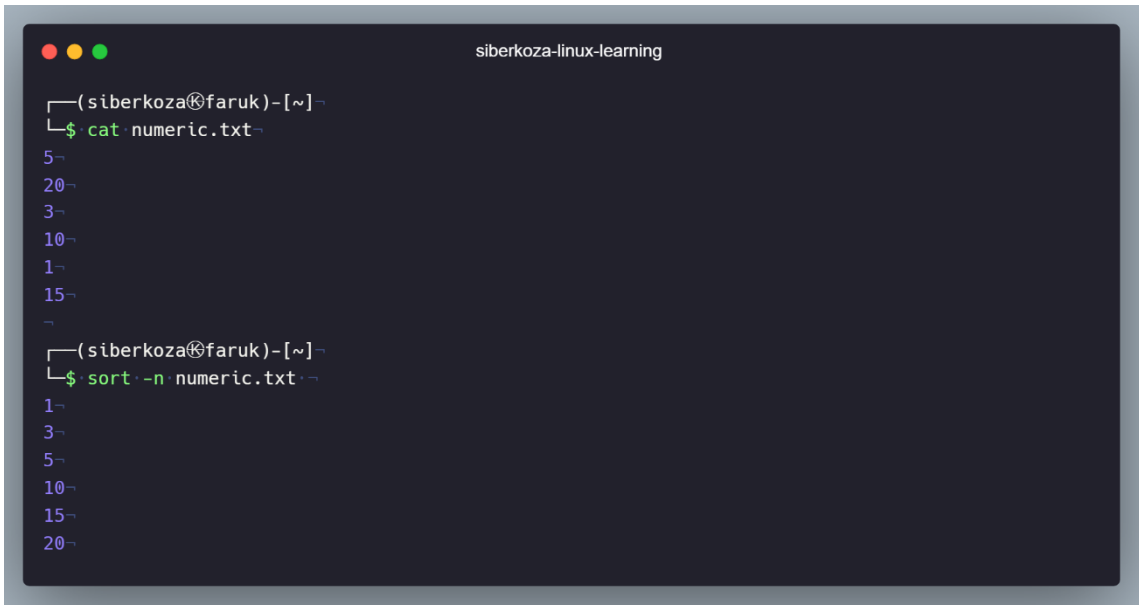



siberkoza-linux-learning
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ ls -l
total 4
-rw-r--r-- 1 siberkoza siberkoza 146 Mar 15 03:55 fruits.txt
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ split -l 2 fruits.txt chunk-
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ ls -l
total 100
-rw-r--r-- 1 siberkoza siberkoza 13 Mar 15 03:51 chunk-aa
-rw-r--r-- 1 siberkoza siberkoza 18 Mar 15 03:51 chunk-ab
-rw-r--r-- 1 siberkoza siberkoza 17 Mar 15 03:51 chunk-ac
-rw-r--r-- 1 siberkoza siberkoza 16 Mar 15 03:51 chunk-ad
-rw-r--r-- 1 siberkoza siberkoza 11 Mar 15 03:51 chunk-ae
-rw-r--r-- 1 siberkoza siberkoza 12 Mar 15 03:51 chunk-af
-rw-r--r-- 1 siberkoza siberkoza 20 Mar 15 03:51 chunk-ag
-rw-r--r-- 1 siberkoza siberkoza 11 Mar 15 03:51 chunk-ah
-rw-r--r-- 1 siberkoza siberkoza 13 Mar 15 03:51 chunk-ai
-rw-r--r-- 1 siberkoza siberkoza 15 Mar 15 03:51 chunk-aj
-rw-r--r-- 1 siberkoza siberkoza 146 Mar 15 03:55 fruits.txt
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ cat chunk-aa
Apple
Banana
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ split -l 5 fruits.txt chf-
┌──(siberkoza㉿faruk)-[~/SiberKoza]
└─$ ls -l
total 116
-rw-r--r-- 1 siberkoza siberkoza 37 Mar 15 03:57 chf-aa
-rw-r--r-- 1 siberkoza siberkoza 38 Mar 15 03:57 chf-ab
-rw-r--r-- 1 siberkoza siberkoza 37 Mar 15 03:57 chf-ac
-rw-r--r-- 1 siberkoza siberkoza 34 Mar 15 03:57 chf-ad
-rw-r--r-- 1 siberkoza siberkoza 13 Mar 15 03:51 chunk-aa
-rw-r--r-- 1 siberkoza siberkoza 18 Mar 15 03:51 chunk-ab
-rw-r--r-- 1 siberkoza siberkoza 17 Mar 15 03:51 chunk-ac
-rw-r--r-- 1 siberkoza siberkoza 16 Mar 15 03:51 chunk-ad
-rw-r--r-- 1 siberkoza siberkoza 11 Mar 15 03:51 chunk-ae
-rw-r--r-- 1 siberkoza siberkoza 12 Mar 15 03:51 chunk-af
-rw-r--r-- 1 siberkoza siberkoza 20 Mar 15 03:51 chunk-ag
-rw-r--r-- 1 siberkoza siberkoza 11 Mar 15 03:51 chunk-ah
-rw-r--r-- 1 siberkoza siberkoza 13 Mar 15 03:51 chunk-ai
-rw-r--r-- 1 siberkoza siberkoza 15 Mar 15 03:51 chunk-aj
-rw-r--r-- 1 siberkoza siberkoza 146 Mar 15 03:55 fruits.txt
┌──(siberkoza㉿faruk)-[~]
└─$ cat chf-aa
Apple
Banana
Orange
Strawberry
Grape

sort

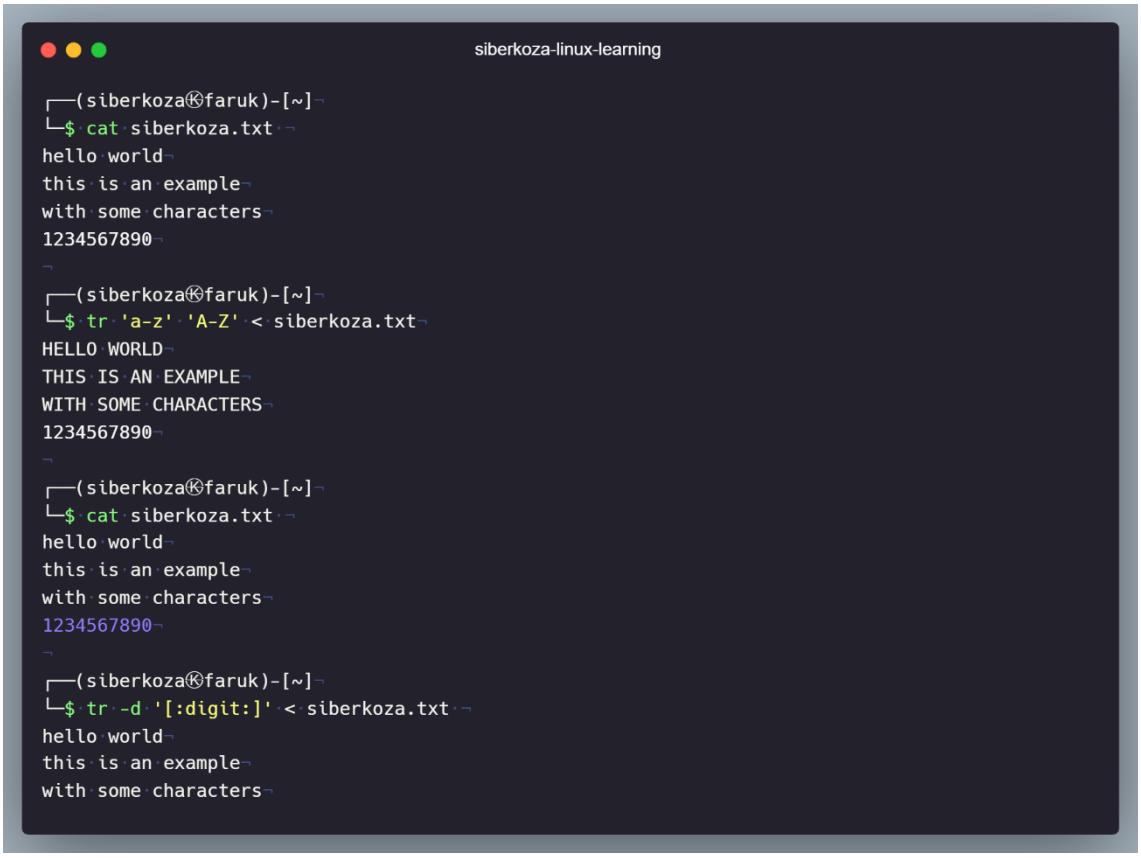
Command	sort
Usage Methods	sort [options] [filename]
Description	The “sort” command is used to sort the lines of a file.





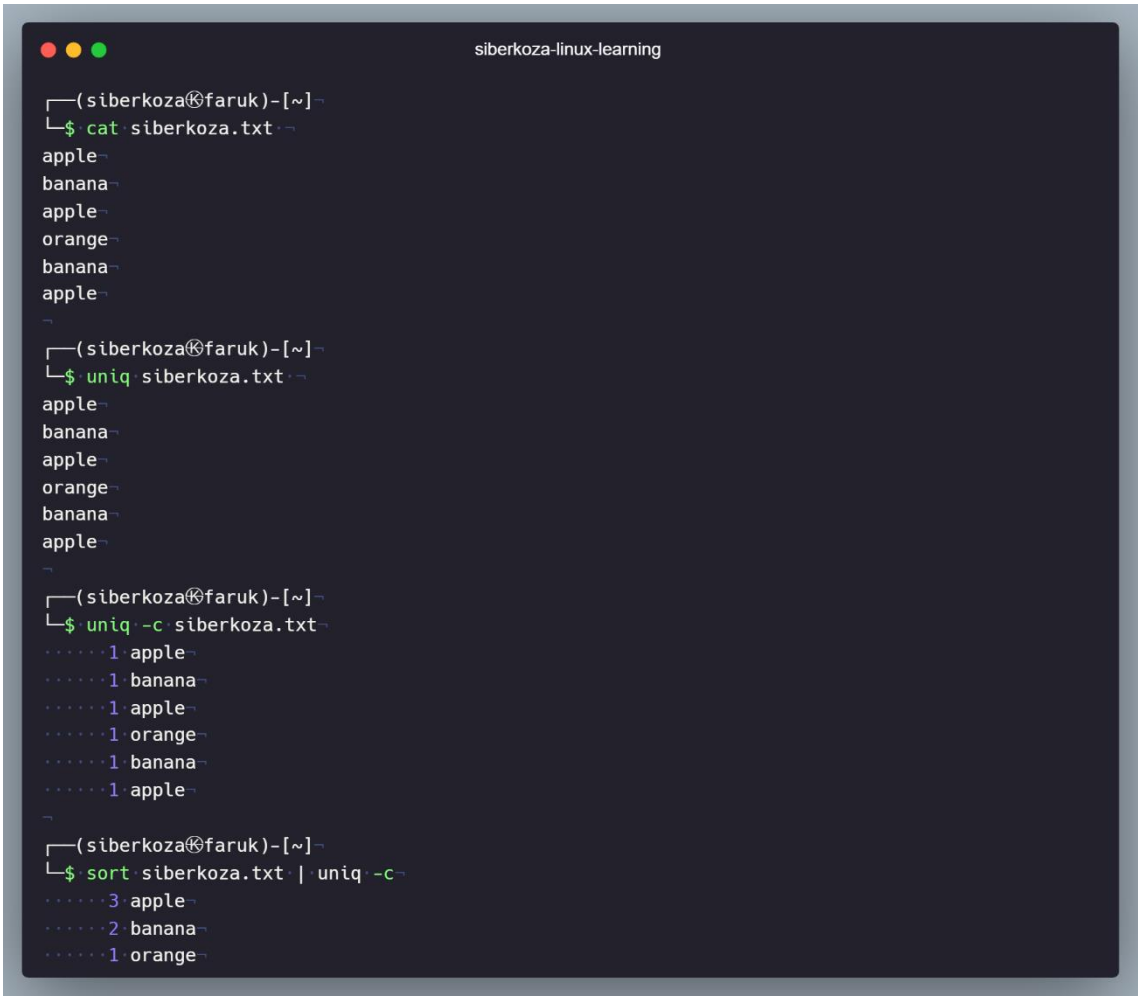
tr

Command	tr
Usage Methods	tr [option] set1 [set2]
Description	The “tr” command is used to convert or delete characters in a text stream.



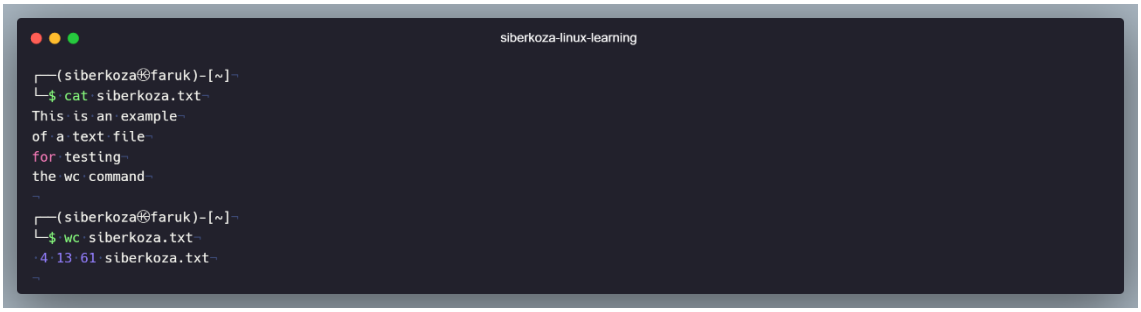
uniq

Command	uniq
Usage Methods	uniq [options] [filename]
Description	The “uniq” command is used to remove consecutive repeats in a file.

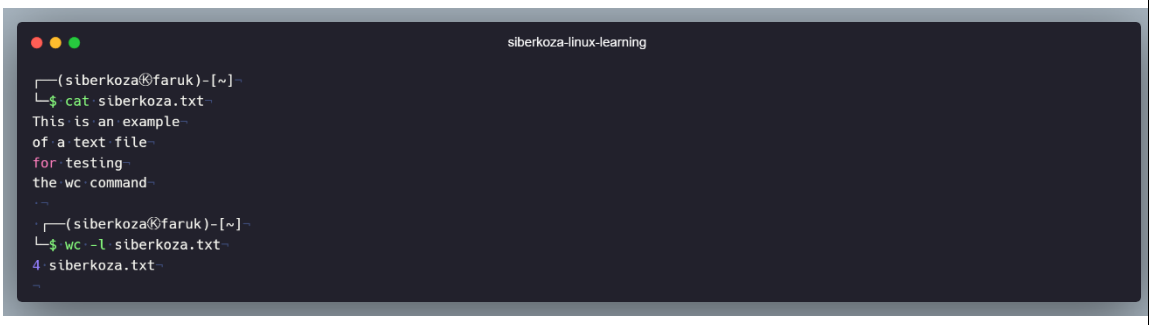


wc

Command	wc
Usage Methods	wc [options] [filename]
Description	The “wc” command is used to count the number of lines, words and bytes of a file.



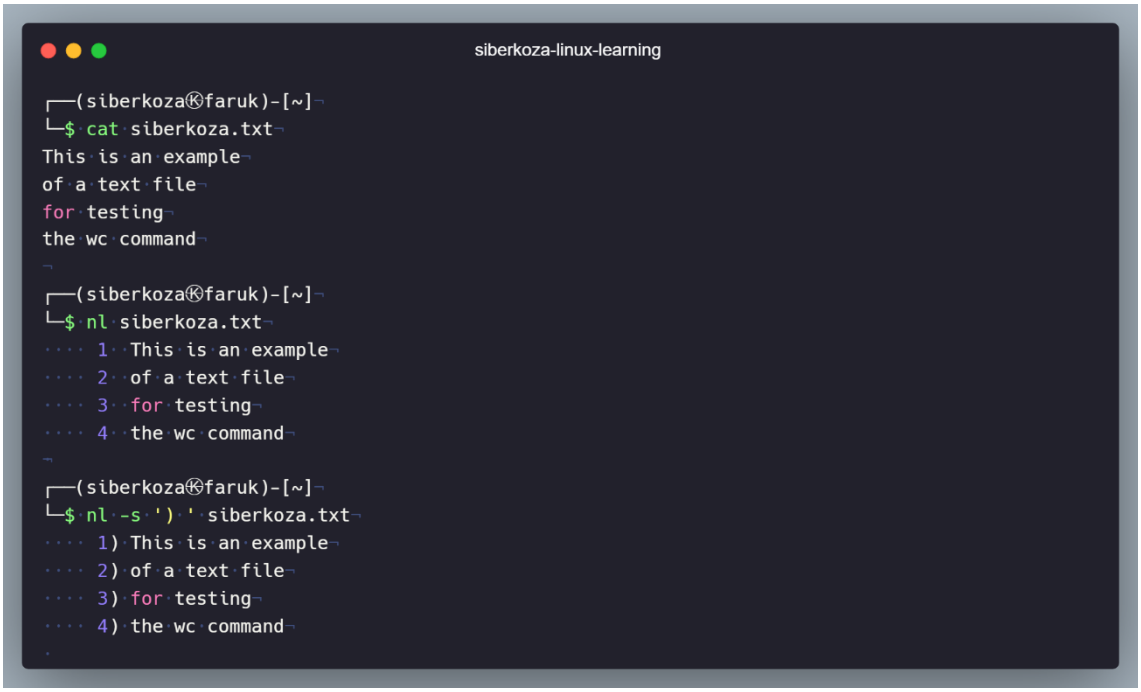
This output shows the number of lines, words and bytes respectively. The file has a total of 4 lines, 13 words and 61 bytes.



This command displays the total number of lines (4) in the file. The -l option is used to get only the number of lines. The other options are for querying different properties such as -w (word count) and -c (byte count).

nl

Command	
Usage Methods	nl [options] [filename]
Description	The “nl” command is used to number lines in a file.



grep

Command	grep
Usage Methods	grep [options] pattern [files]
Description	“grep” searches for lines in a file or standard input stream that match a specific pattern and prints these lines to the screen. The pattern can be defined using regular text or regular expressions (regex).

vim

Command	vim
Usage Methods	vim [options] [filename]
Description	“vim” is a text editor that is highly configurable and powerful. It allows users to create, edit, and view text files.

nano

Command	nano
Usage Methods	nano [options] [filename]
Description	“nano” is a simple and easy-to-use text editor for Unix-like operating systems. “nano” allows users to create, edit, and view text files directly from the command line.

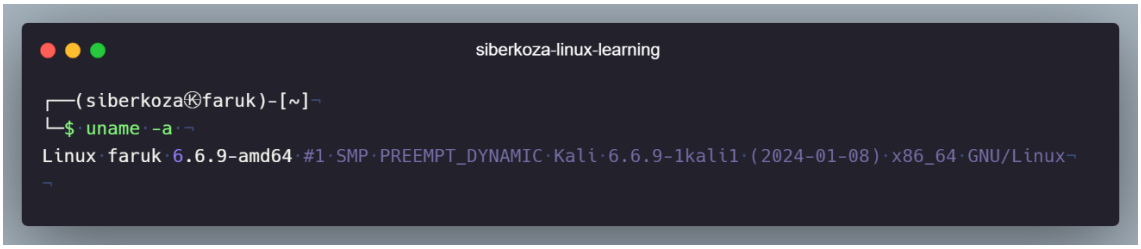
Linux Commands for Getting Help: --help – man – alias

- **command --help:** Used to get a short help text on how to use a command.
- **man command:** Used to display a comprehensive manual page for a command.
- **alias:** Used to create and use shortcuts for frequently used commands.

System Information Commands: uname - hostname - lscpu - lsb_release - uptime - free - df - du - ifconfig/ip - netstat

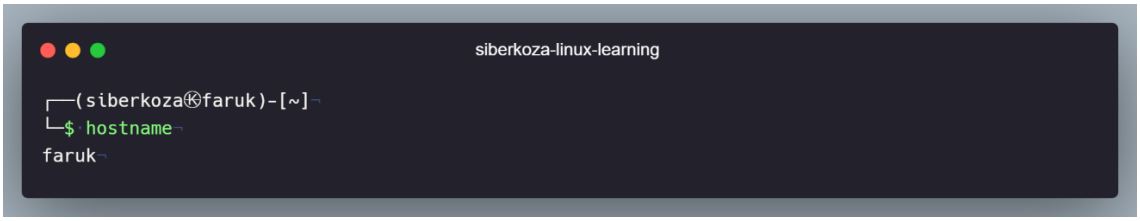
uname

Command	uname -a
Description	“Uname” displays operating system information and information about the system hardware. This command is often used to get general information about the system.



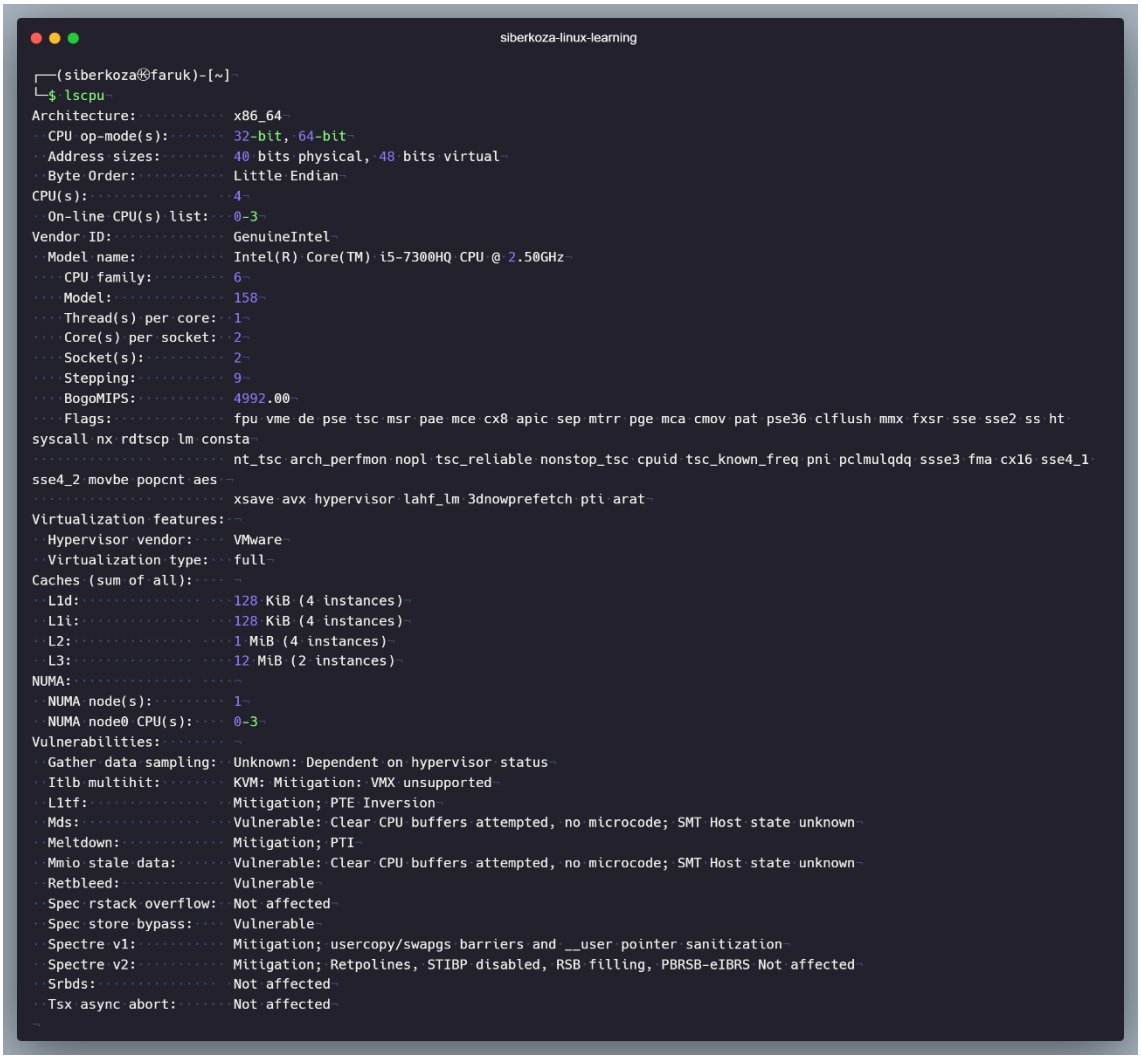
hostname

Command	hostname
Description	The “hostname” command displays or sets the host name of the system.



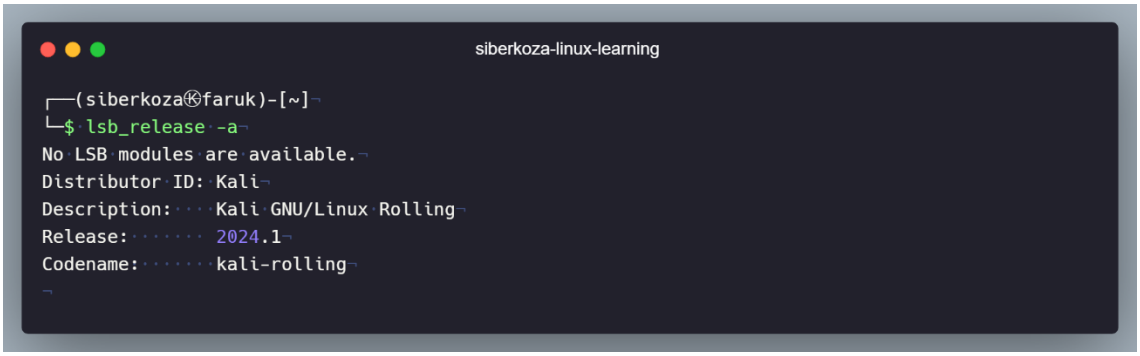
lscpu

Command	lscpu
Description	The “lscpu” command provides information about the CPU (Central Processing Unit) in the system. This command displays the CPU's specifications, architecture, speed, number of cores, number of threads, and other relevant information.



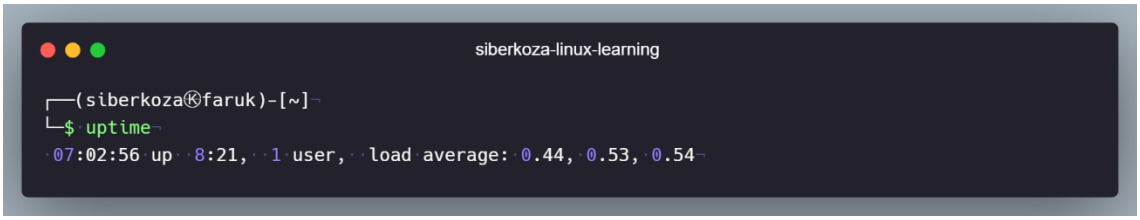
lsb_release

Command	lsb_release -a
Description	This command provides the version number, distribution name, release name, and other relevant information for the Linux distribution.



uptime

Command	uptime
Description	The “uptime” command is a command that displays the uptime and system load on a Linux system. System load indicates how intensive the CPU and other resources are, and usually refers to the average load over a given period of time.



In this output, the uptime in the system is indicated as 1 day 3 hours 45 minutes. The total number of users on the system (user) and the average load (load average) are also displayed. The average load refers to the average load of the CPU in the last 1, 5 and 15 minutes. In the example above, the average load is 0.32, 0.27 and 0.25 respectively. Low values indicate that the load on the system is light, while high values indicate a heavy workload on the system.

free

Command	free -m / free -g
Description	The “free” command provides information about system memory (RAM) usage. This command shows the total, used, idle, and cached memory on the system.

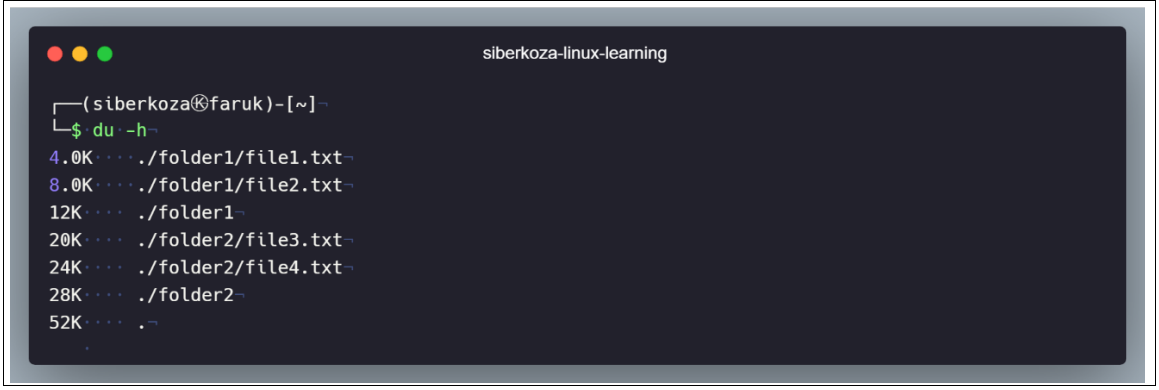
The -m option displays results in megabytes (MB), while the -g option displays results in gigabytes (GB).

df

Command	df
Description	The “df” command displays the name of the available file systems, the device to which the file systems are mounted, the total space of the file systems, the used space, the free space and the percentage of usage.

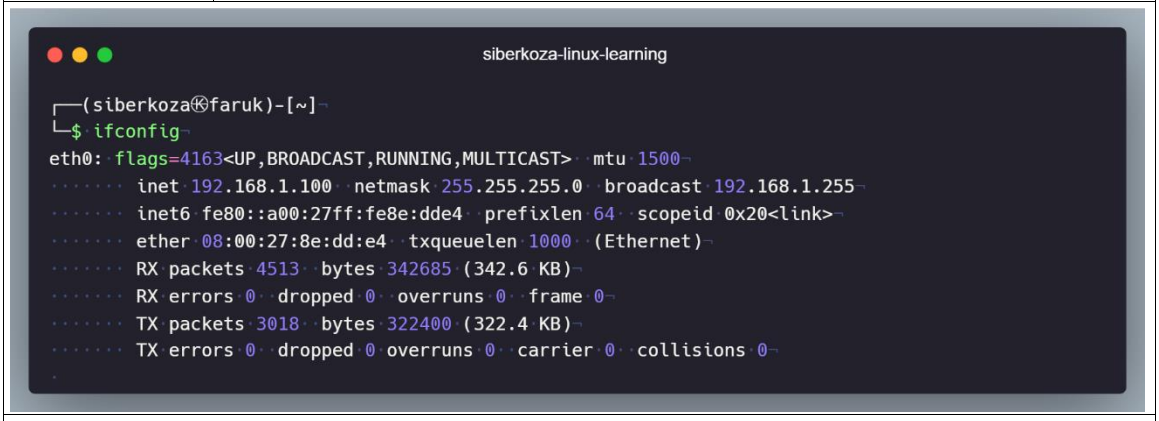
du

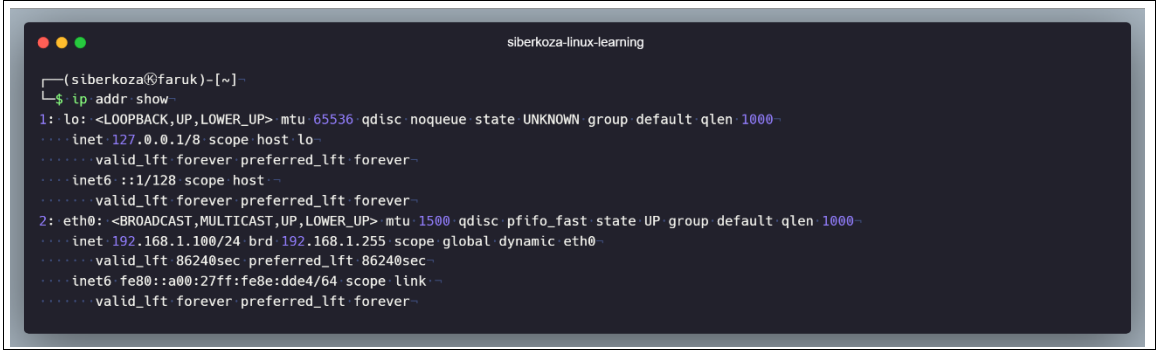
Command	du -h
Description	The du command is a command that shows disc usage. It is short for "Disk Usage". This command shows the disk space occupied by a particular directory or file and the total disk usage of subdirectories.



ifconfig / ip

Command	ifconfig / ip addr show
Description	The “ifconfig” and “ip” commands are used to configure network interfaces and manage network connections. Both commands display the IP addresses, operational status, MAC addresses, and other details of network interfaces.





netstat

Command	netstat -tuln
Description	The “netstat” command is used to monitor and manage network connections and display information about the network.