

Linux Shell

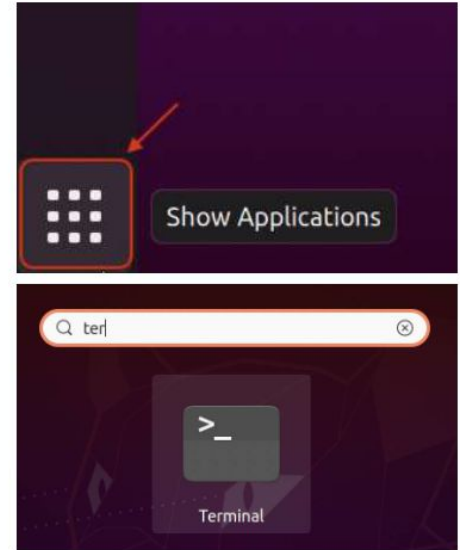
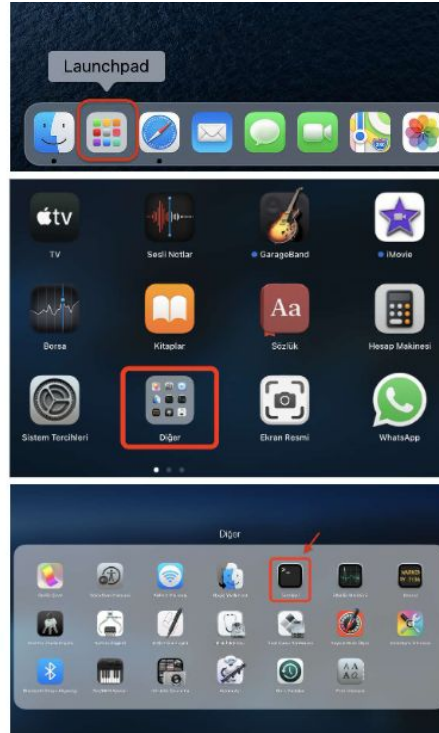
BLG101E - Introduction to Information Systems

Recitation Week 3

Open the Shell

You can directly use the commands given in this presentation on your Linux and MacOS terminal.

macOS



Linux

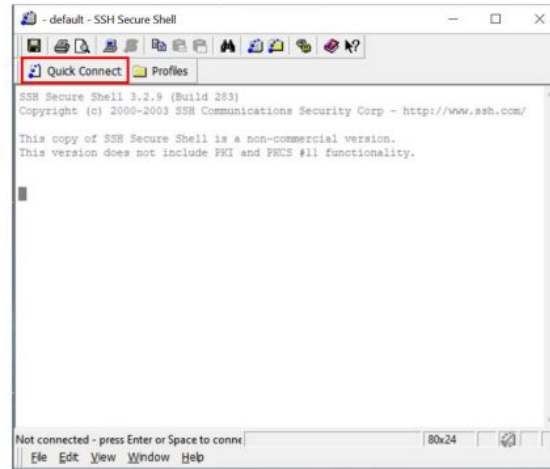
Open the Shell (Windows)

On Windows, in order to use the UNIX commands, you can connect to a remote Linux server.

Now, we will connect to the ITU Linux servers using SSH Secure Shell.

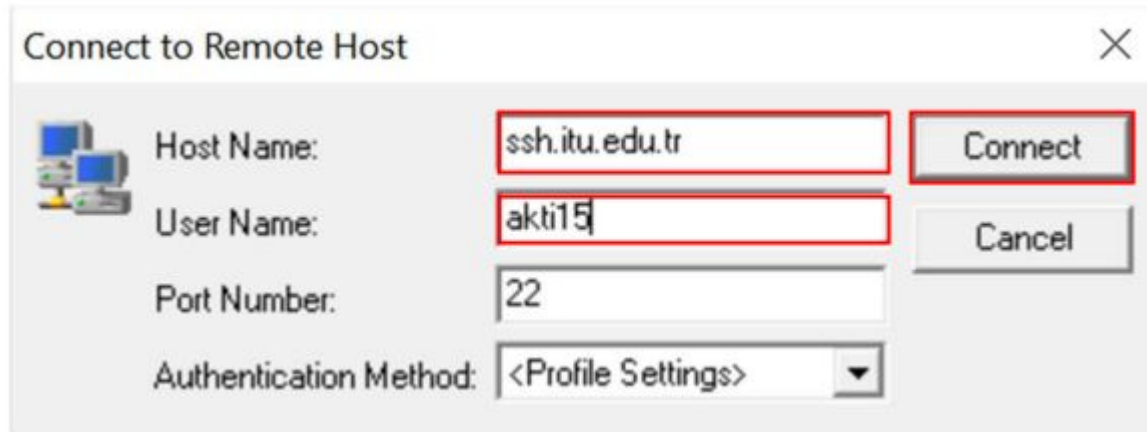
Open the Shell (Windows)

Open the SSH Secure Shell on your computer. This program is installed in default on the laboratory computers. You can also download it on your personal computers.



Open the Shell (Windows)

Program asks for the connection information. Enter the host name as **ssh.itu.edu.tr** and username as **<your ITU username>** . Then, click **Connect**.



Connect to Remote Host

Host Name: ssh.itu.edu.tr

User Name: akti15

Port Number: 22

Authentication Method: <Profile Settings>

Connect

Cancel

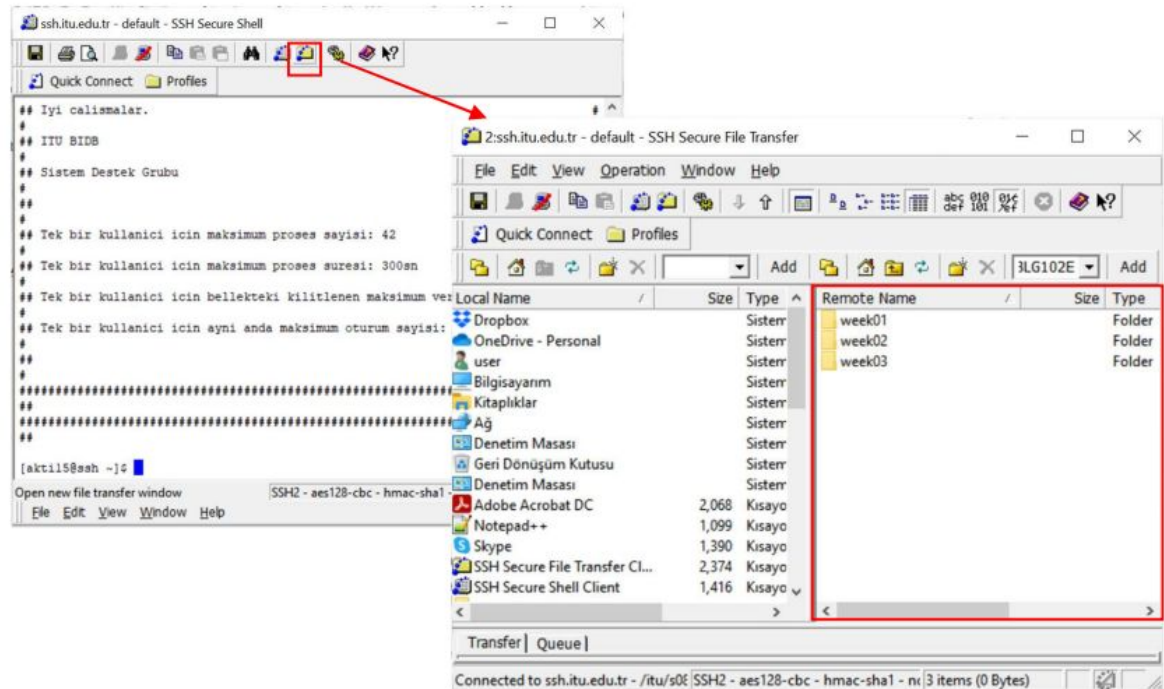
Open the Shell (Windows)

Next, you should enter **your own ITU password** in order to connect. Press **OK** to complete.

A screenshot of a Windows-style dialog box titled "Enter Password". The dialog has a close button (X) in the top right corner. On the left, the label "Password:" is followed by a text input field. The input field contains ten "x" characters, indicating a masked password, and has a red rectangular border. To the right of the input field are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a red rectangular border.

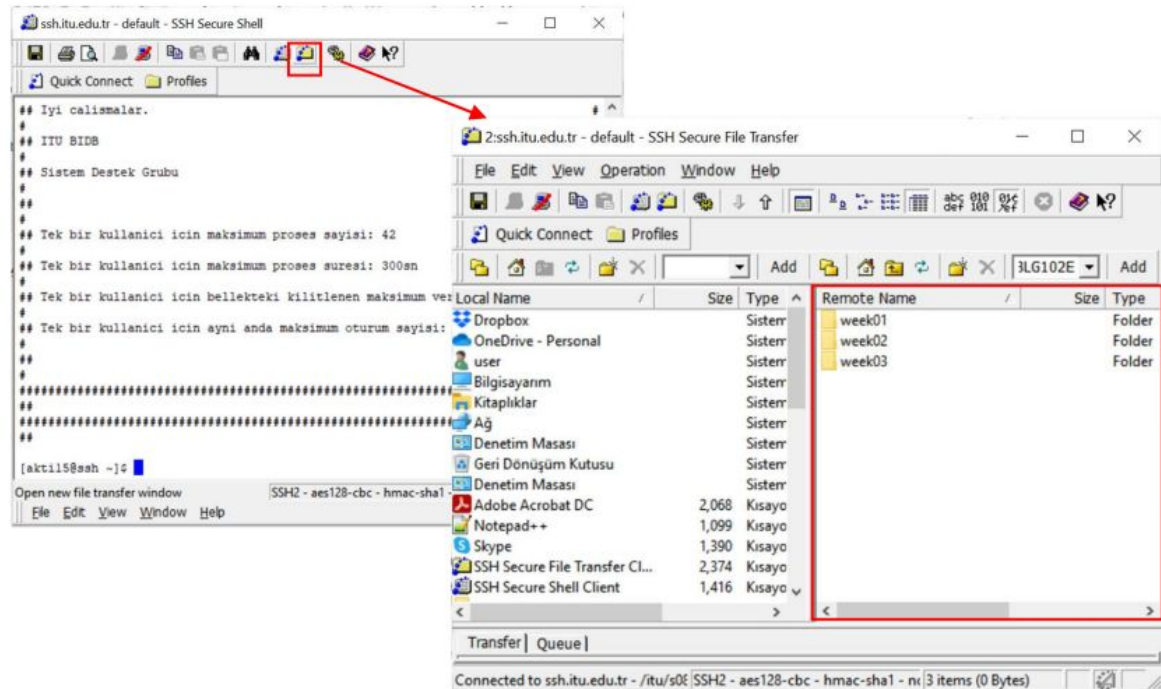
Open the Shell (Windows)

Now, you have successfully connected your account on ITU Linux server.



Open the Shell (Windows)

You can view and manage your files on remote server using **SSH Secure File Transfer** window.



Note!

Do not close or clear the content of the command prompt during the lab hour. The commands should be seen at the screenshot that you will upload on Ninova.

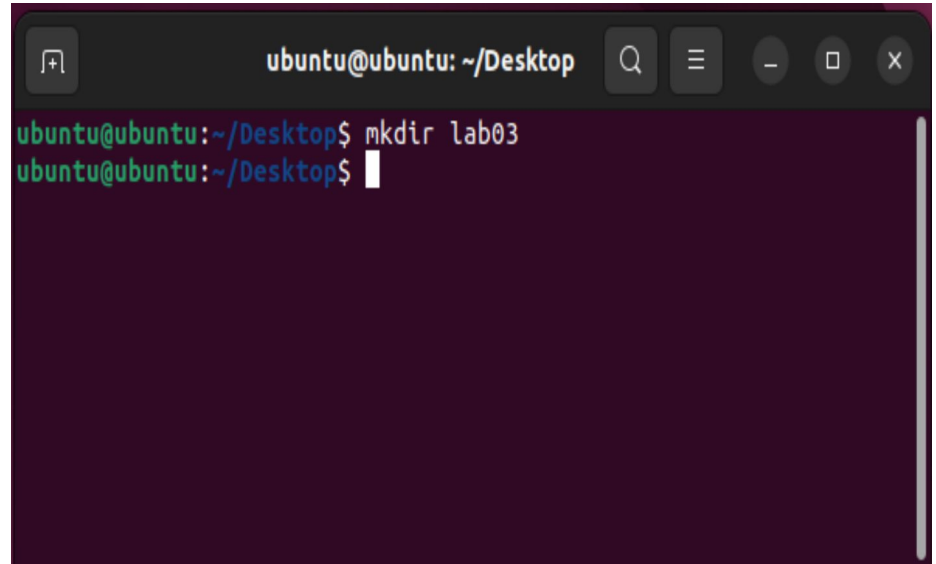
Create a folder

To create new folder type:

- `mkdir directory_name`

(i.e. your lab name '*lab03*')
(i.e. your lab name '*lab03*')

Then press **Enter**.

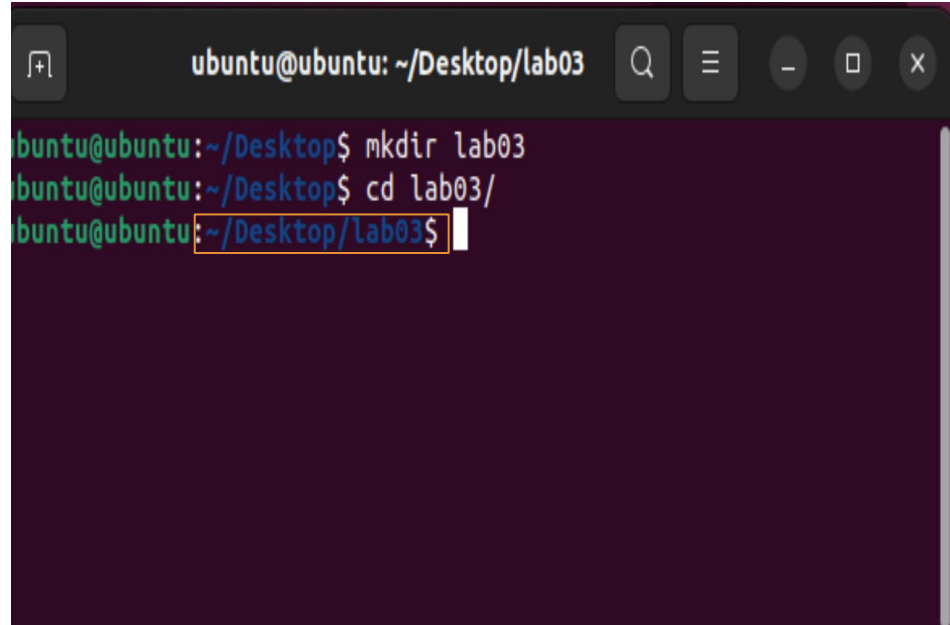
A terminal window with a dark background and light text. The title bar at the top reads 'ubuntu@ubuntu: ~/Desktop'. Below the title bar, the prompt 'ubuntu@ubuntu:~/Desktop\$' is followed by the command 'mkdir lab03'. The prompt is repeated on the next line, followed by a blank line with a cursor, indicating the command has been executed.

```
ubuntu@ubuntu: ~/Desktop
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$
```

Change directory to the folder

- cd *path_to_directory*

command changes the
working directory to
path_to_directory

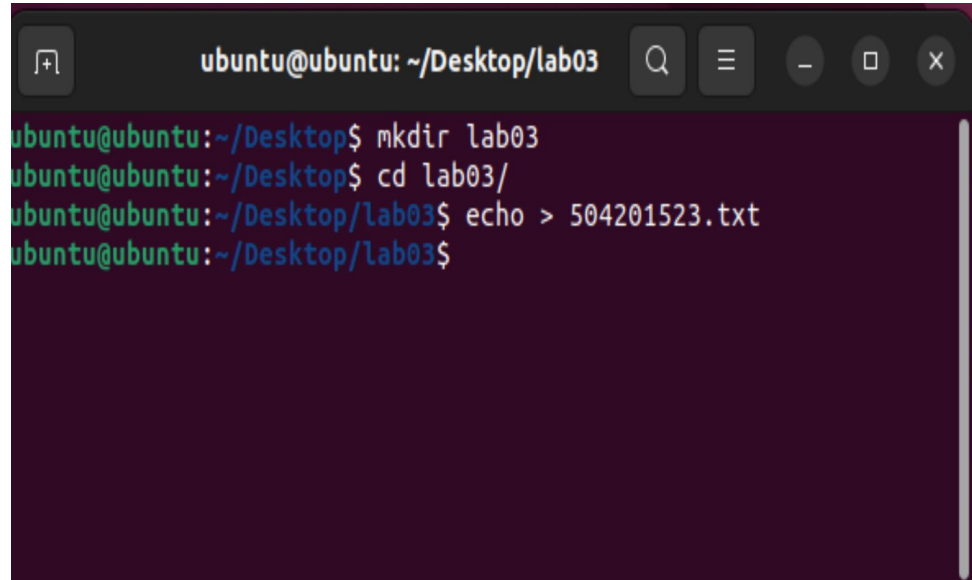
A terminal window with a dark purple background and a title bar that reads 'ubuntu@ubuntu: ~/Desktop/lab03'. The terminal shows three lines of commands and their outputs: 'mkdir lab03', 'cd lab03/', and '~/.Desktop/lab03\$'. The third line's prompt is highlighted with a yellow box.

```
ubuntu@ubuntu: ~/Desktop/lab03
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/.Desktop/lab03$
```

Create a text file

For creating empty text file
type command:

echo > *your_file_name.txt*

A terminal window with a dark purple background and light green text. The window title bar shows 'ubuntu@ubuntu: ~/Desktop/lab03' and standard window controls. The terminal shows the following commands and output:

```
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$
```

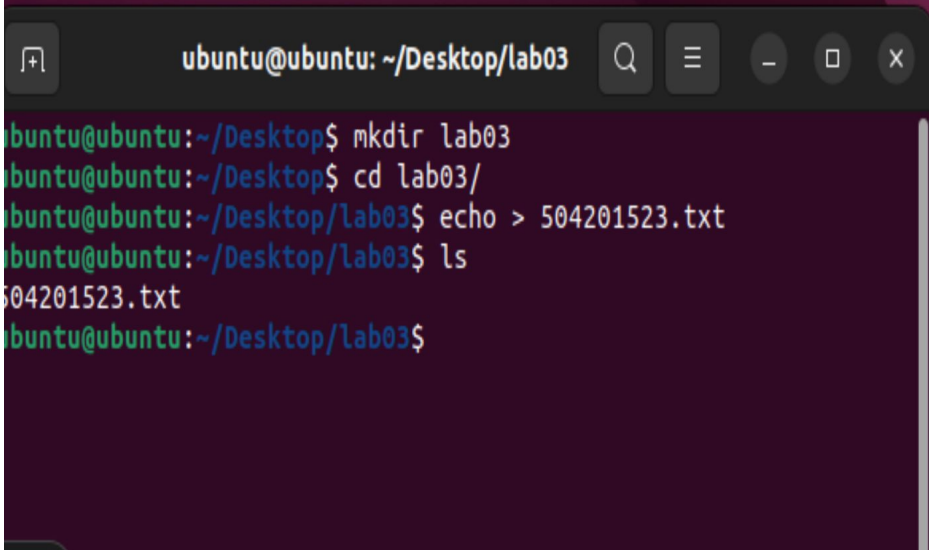
Check folder content

In order to list files in the current directory, type:

ls

You can also list the files with details using:

ls -l

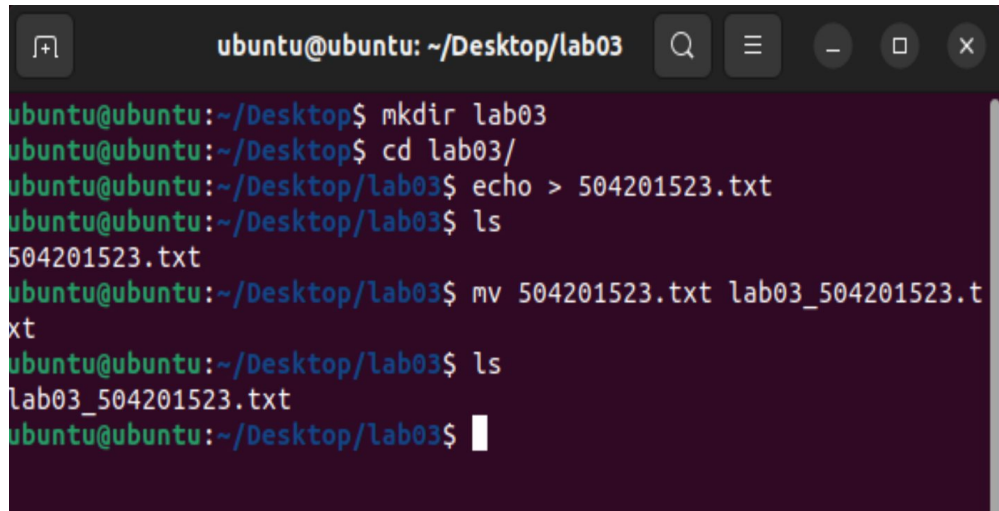


```
ubuntu@ubuntu: ~/Desktop/lab03
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$
```

Change file name

In order to rename a file, type:

mv old_file_name.txt new_file_name.txt

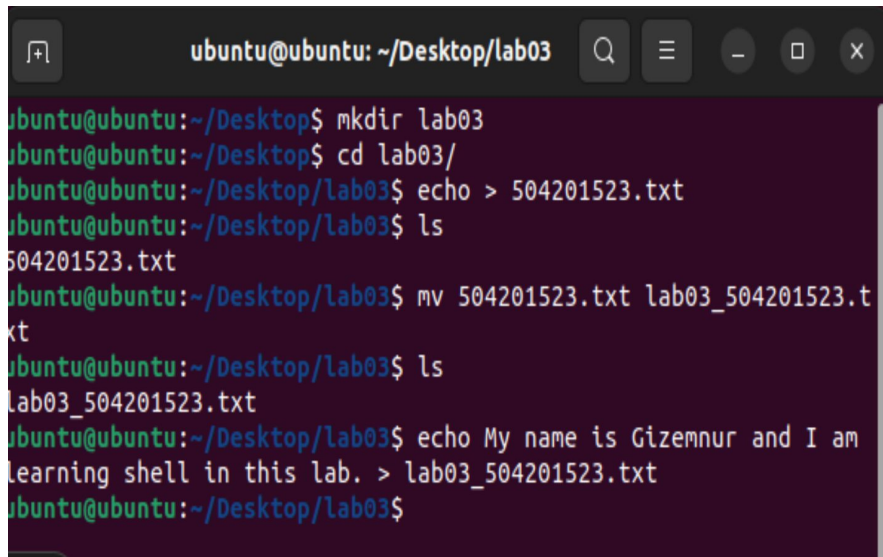
A terminal window with a dark background and light text. The title bar shows 'ubuntu@ubuntu: ~/Desktop/lab03'. The terminal content shows a series of commands and their outputs: 'mkdir lab03', 'cd lab03/', 'echo > 504201523.txt', 'ls' (output: '504201523.txt'), 'mv 504201523.txt lab03_504201523.txt', 'ls' (output: 'lab03_504201523.txt'), and a final prompt 'ubuntu@ubuntu: ~/Desktop/lab03\$' with a cursor.

```
ubuntu@ubuntu: ~/Desktop/lab03
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ mv 504201523.txt lab03_504201523.t
xt
ubuntu@ubuntu:~/Desktop/lab03$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$
```

Write to text file

In order to write some text to your file, type:

echo *text_you_write* > *your_file_name*

A terminal window titled 'ubuntu@ubuntu: ~/Desktop/lab03' with standard window controls. The terminal shows a sequence of commands: 'mkdir lab03', 'cd lab03/', 'echo > 504201523.txt', 'ls' (showing '504201523.txt'), 'mv 504201523.txt lab03_504201523.txt', 'ls' (showing 'lab03_504201523.txt'), and 'echo My name is Gizemnur and I am learning shell in this lab. > lab03_504201523.txt'.

```
ubuntu@ubuntu: ~/Desktop/lab03
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ mv 504201523.txt lab03_504201523.t
xt
ubuntu@ubuntu:~/Desktop/lab03$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ echo My name is Gizemnur and I am
learning shell in this lab. > lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$
```

Display the file content

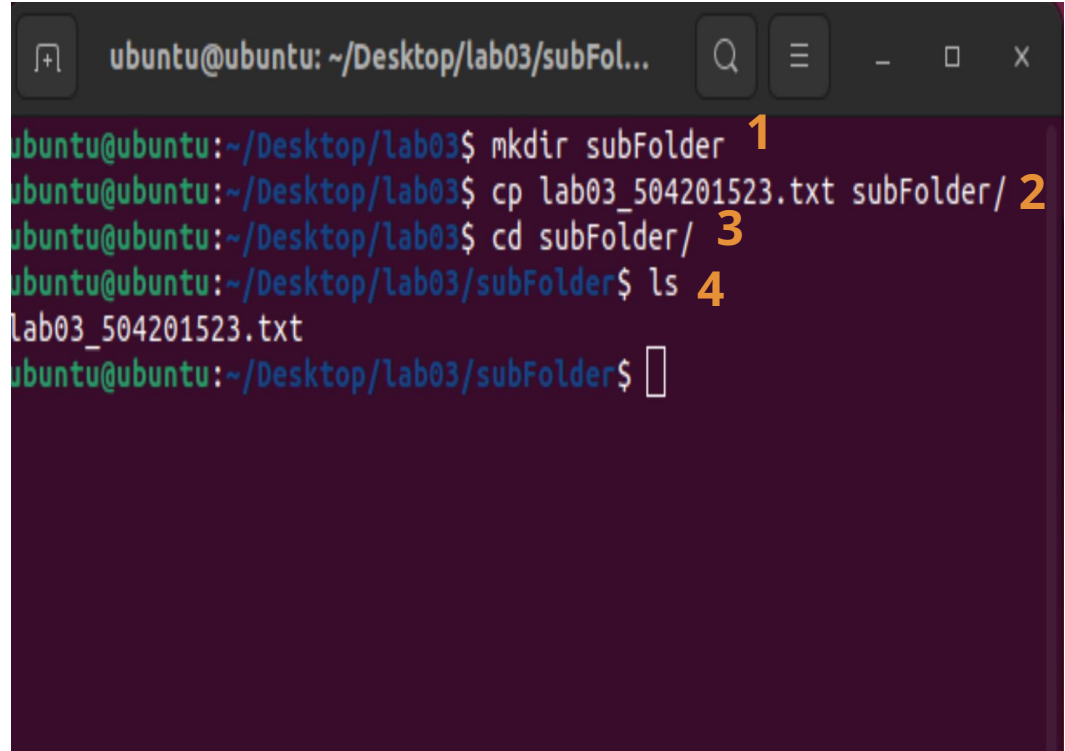
When you want to display the content of the text file, type:

cat **name_of_the_text_file**

```
ubuntu@ubuntu:~/Desktop/lab03$ cat lab03_504201523.txt  
My name is Gizemnur and I am learning shell in this lab.  
ubuntu@ubuntu:~/Desktop/lab03$
```


Now, let's apply following steps:

- 1 - create a subfolder
- 2 - copy the text file to the subfolder
- 3 - change directory to subfolder
- 4 - check the content of the subfolder

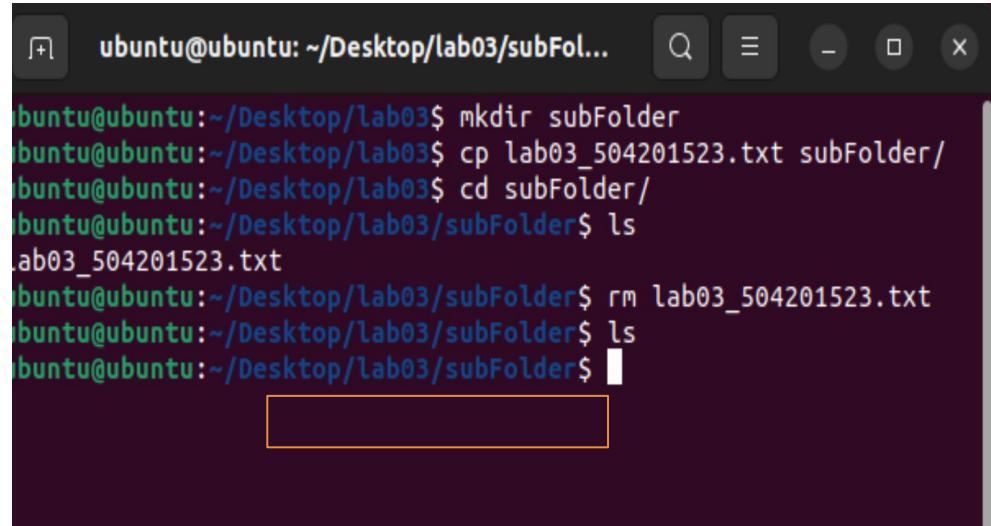


```
ubuntu@ubuntu: ~/Desktop/lab03/subFol...  
ubuntu@ubuntu:~/Desktop/lab03$ mkdir subFolder 1  
ubuntu@ubuntu:~/Desktop/lab03$ cp lab03_504201523.txt subFolder/ 2  
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/ 3  
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls 4  
lab03_504201523.txt  
ubuntu@ubuntu:~/Desktop/lab03/subFolder$
```

Delete the text file in the sub-folder

In order to delete a file, type:

rm *file_name.txt*

A terminal window with a dark background and light-colored text. The window title is 'ubuntu@ubuntu: ~/Desktop/lab03/subFol...'. The terminal shows a series of commands and their outputs. The commands are: 'mkdir subFolder', 'cp lab03_504201523.txt subFolder/', 'cd subFolder/', 'ls', and 'rm lab03_504201523.txt'. The output of 'ls' shows 'lab03_504201523.txt'. The output of 'rm' is empty. The prompt is 'ubuntu@ubuntu: ~/Desktop/lab03/subFolder\$'.

```
ubuntu@ubuntu: ~/Desktop/lab03/subFol...
ubuntu@ubuntu:~/Desktop/lab03$ mkdir subFolder
ubuntu@ubuntu:~/Desktop/lab03$ cp lab03_504201523.txt subFolder/
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ rm lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
ubuntu@ubuntu:~/Desktop/lab03/subFolder$
```

Change directory to parent file

In order to go back to the parent file, you can type:

cd ..

```
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ rm lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ cd ..
ubuntu@ubuntu:~/Desktop/lab03$
```

Move text file to subfolder

In order to move a file, you can type:

`mv` *current_file_path* *path_to_move*

```
ubuntu@ubuntu:~/Desktop/lab03$ mv lab03_504201523.txt subFolder/  
ubuntu@ubuntu:~/Desktop/lab03$ ls  
subFolder  
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/  
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls  
lab03_504201523.txt  
ubuntu@ubuntu:~/Desktop/lab03/subFolder$
```

At the end,
your terminal
should look
like this:

```
ubuntu@ubuntu: ~/Desktop/lab03/subFolder
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ mv 504201523.txt lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ echo My name is Gizemnur and I am learning shell
in this lab. > lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ cat lab03_504201523.txt
My name is Gizemnur and I am learning shell in this lab.
ubuntu@ubuntu:~/Desktop/lab03$ mkdir subFolder
ubuntu@ubuntu:~/Desktop/lab03$ cp lab03_504201523.txt subFolder/
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ rm lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ cd ..
ubuntu@ubuntu:~/Desktop/lab03$ mv lab03_504201523.txt subFolder/
ubuntu@ubuntu:~/Desktop/lab03$ ls
subFolder
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$
```

Take screenshot and submit

Take the screenshot of your results. Screenshot should include:

- File content in the subFolder. The path and the content of folder and text file should be seen.
- Terminal window.

Take screenshot and submit

```
ubuntu@ubuntu: ~/Desktop/lab03/subFolder
ubuntu@ubuntu:~/Desktop$ mkdir lab03
ubuntu@ubuntu:~/Desktop$ cd lab03/
ubuntu@ubuntu:~/Desktop/lab03$ echo > 504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ mv 504201523.txt lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ echo My name is Gizemnur and I am learning shell
in this lab. > lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03$ cat lab03_504201523.txt
My name is Gizemnur and I am learning shell in this lab.
ubuntu@ubuntu:~/Desktop/lab03$ mkdir subFolder
ubuntu@ubuntu:~/Desktop/lab03$ cp lab03_504201523.txt subFolder/
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ rm lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ cd ..
ubuntu@ubuntu:~/Desktop/lab03$ mv lab03_504201523.txt subFolder/
ubuntu@ubuntu:~/Desktop/lab03$ ls
subFolder
ubuntu@ubuntu:~/Desktop/lab03$ cd subFolder/
ubuntu@ubuntu:~/Desktop/lab03/subFolder$ ls
lab03_504201523.txt
ubuntu@ubuntu:~/Desktop/lab03/subFolder$
```

BLG101E > lab03 > subFolder

Ad	Değiştirme tarihi	Tür	Boyut
lab03_504201523.txt	2.10.2022 23:32	Metin Belgesi	1

lab03_504201523.txt - Not Defteri

Dosya Düzen Biçim Görünüm Yardım

My name is Gizemnur and I am learning shell in this lab.

St 1, Str 57 100% Windows (CRLF) UTF-8

Close the terminal

In the end you may write `exit` and press enter to close terminal, or just close the window.

[illegible]