

BIL214 - Systems Programming

LAB1

In this lab, you will follow the 3 questions given below step by step. For each step, write your answers or commands into a file named "<number>_<namesurname>.txt" and upload your file into below form. **Do not** write outputs into the file.

Upload Form: <https://forms.gle/bEjNsAPceKpfWrwVA>

Deadline: 18:30 23.09.2021

Open a terminal.

1. Move around the file system

- a. Type **pwd** and enter. What does this command do?
- b. Which command lists the contents of the current directory?
- c. Create a new folder named Lab1 with the required command.
- d. Type **cd** and enter. What happens?
- e. Type **ls ..** and enter. What happens?
- f. Go to the root directory with the required command.
- g. Type **cd ..** and enter. What happens?
- h. Go to your user's home directory with the required command.
- i. List the root directory's content without changing your location.
- j. Add an environment variable named "BIL" with the value of "214".
- k. Print the BIL variable.

2. File utilities

- a. Switch into the Lab1 folder. Do not change your location for the below questions.
- b. Type **man man** and enter. What happens?
- c. Create the following hierarchy with one command. F1/F2/F3
- d. Copy F3 into F1. (F1 will have both F2 and F3.)
- e. Delete the F3 in the F2 with the required command.
- f. Move F3 into F1.
- g. Create 5 files called "a2.c", "s1.txt", "a3.py", "t5.txt", "d4.c".
- h. List all files that begin with "a". Hint: use wildcards.
- i. List all C files.

3. Text operations

- a. Open "s1.txt" using nano or vim and write following text.

```
Do
not
go
gentle
into
that
good
night
Old
age
should
burn
and
rave
at
close
of
day
Rage
against
the
dying
of
the
light
```

- b. Type **cat s1.txt** and enter. What happens?
- c. Print the content of the s1.txt in reverse alphabetical order.
- d. Print the content of the s1.txt without duplicate lines.
- e. Print the lines that contain "e".
- f. Print the lines that end with "t".
- g. Print the last 9 lines of the file.
- h. Print the first 4 lines of the alphabetically sorted file. You can use | symbol for pipelining commands.
- i. Write the sorted file content into "sorted.txt" without using nano or vim. You can use > symbol to redirect output.
- j. Write the lines that contain "o" in reverse alphabetical order into "o_lines.txt".
- k. Write the content of the root directory into "o_lines.txt" without deleting its content.
- l. Delete all files and directories in the Lab1 folder.