CENG322 **Spring 2022**

PROGRAMMING ASSIGNMENT 1

Due date: 11.03.2022 23:00

1) Write a shell script that takes a single command line argument which is a file containing one integer per line as the following:

20
18
5
32
4

From this data, your program should print out a row of stars of the given length for each integer. For the input above, your program should print the following:

Ex:

```
$ ./myprog1.sh filename
********************
******************
*****
********************************
****
```

2) Write a shell script that reads integers (one-per-line) from the user until it reads the word “end”. Afterward, it will report the maximum number given by the user.

Ex:

```
$ ./myprog2.sh
Enter a sequence of numbers followed by "end"
7
18
42
123
92
end
Maximum : 123
```

3) Write a shell script that takes an optional argument as a directory and removes all zero length ordinary files in the directory. If directory argument is not given, it should remove all zero-length files in the current directory. If given directory argument is not a valid directory, your program should terminate with an error (exit 1). You can use man [command to learn more about checking file information.

Ex:

```
$ ls –l /home/std/Desktop
-rw------- 1 std std 152144 Jun 20 2005 alice-in-wonderland.txt
-rw------- 1 std std 0 Jun 20 2005 barleby-scrivener.txt
-rw------- 1 std std 13421 Jun 20 2005 calaveras-county.txt
-rw------- 1 std std 635 Jun 20 2005 french.txt
-rw------- 1 std std 0 Jun 20 2005 hawthorne.txt
-rw------- 1 std std 172541 Jun 20 2005 looking-glass.txt
drwx------ 14 std std 476 May 25 2007 shakespeare
-rw------- 1 std std 0 Jun 20 2005 trees-and-other-poems.txt
```

```
$ ./myprog3.sh /home/std/Desktop
3 zero-length files are removed from the directory: /home/std/Desktop
$ ls –l /home/std/Desktop
-rw------- 1 std std 152144 Jun 20 2005 alice-in-wonderland.txt
-rw------- 1 std std 13421 Jun 20 2005 calaveras-county.txt
-rw------- 1 std std 635 Jun 20 2005 french.txt
-rw------- 1 std std 172541 Jun 20 2005 looking-glass.txt
drwx------ 14 std std 476 May 25 2007 shakespeare
```

Notes:

- You are required to submit a report that includes explanations about implementations with screenshots of your sample executions.
- You need to work individually, no group work is allowed.
- No late homework will be accepted.

Submission: You are required to submit your **commented** source code and report to cloud-lms. Please create a compressed file including all source files and report; and name it as yourstudentnumber_P1.zip (e.g. If your student number is 202212345678, the file name must be 202212345678_P1.zip).