GTU/CSE 2019 CSE344 Prof.Dr. Erkan ZERGEROĞLU

Program explanation

· Finding the size of the directory given by parent process (adding the sizes of subdirectories if -z option is given).

· Creating new processes to find the sizes of subdirectories.

· Writing the PID of the process, size (in kilobytes(preferred) or bytes) and path of the directory to a single global file “sizes.txt. You must use a file lock as multiple processes shouldn’t write to the same file at the same time. Do not remove the file and leave its contents after the execution. After your child processes write all the size of all directories, main process will read the file, find the total sizes if needed and output to standard output. The order of output is important and it should be postorder. Finally, it will output the number of created child processes and exit. Do not add the sizes of files or the directories pointed by a symbolic link. Just say that there is a special file. Do not show size of any file explicitly, just directories. The program buNeDuFork with the argument rootpath will be called like below. The rootpath can be any path on the system, not just a path in the current directory.

```
./buNeDuFork [-z] rootpath
```

While executing, do not communicate between any process to find total size for
-z option, just write your local result to “sizes.txt” file. When all child processes finish, parse that file calculate to total sizes.