Advanced Programming

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Excercise 1

Setup

Please check out the data for this excercise located here:
`https://github.com/mattmilten/appfs`
You find a file named `ex1_gen` used to generate the input data.
Run this program as follows:
`./ex1_gen 500000000 > ndata.dat`
The `ndata.dat` should then contain 500.000.001 numbers, binary stored as signed little endian 32 bit integers. You can check by `ls -l ndata.dat` it should say something like 2GB.
The first number is 123456789. All the numbers should be positive.

What do do?

Write a program named `ex1` in C or your favorite language, which

1. Reads in the numbers from `ndata.dat`.
2. Prints the numbers, starting from 0 in increasing order, ASCII representation, one number per line, no leading zeros or spaces, lines ended by a single newline.

How to report

1. use `time ex1 ndata.dat` to get the runtimes of your program.
2. run `ex1 ndata.dat | wc`.
3. run `ex1 ndata.dat | md5sum`.

Send the output of time, wc, and md5sum together with the source code to `thorsten.koch@tu-berlin.de` with a subject of `APPFS ex1 vorname nachname`.