

Assignment 2

OPERATING SYSTEMS, FALL 2017

Time: One week

Instructions: Do not copy material from other sources, if it is necessary, then provide the references. Plagiarized assignment will get negative marks, and can be called for DC action.

It is a fun project, which goes as follows. You have an input file named `inputAssign-2.txt`. Each line is only marked by the line number in this file. You have to create two processes which can be started from the command prompt, separately.

When any one of the processes start, it loads the input file and shows it on the command prompt. It only shows the first 10 lines in the beginning. So if you have started both programs one by one then both will show first 10 lines on their screens. Now the fun begins.

When you press a `d` key or `u` key on any one of the processes, both processes should scroll down or up. Because it is hard for you to create a clear `vi` type screen for your processes, so you can use a work around.

In the beginning both process will show the lines from 1 to 10. If user presses a `d` key then both will show the lines from 2 to 11. If user presses the same key again then both will show the lines from 3 to 12. Now, if user presses `u` key then the processes show line from 2 to 11, so on and so forth.

Pressing `X` should end the processes and all resources acquired should be freed. If the user presses `u` key when processes are already showing the first chunk, i.e. lines 1 to 10, then processes will not do anything. Similarly, when processes are showing the last chunk, pressing `d` key would not result into anything.

If you are unable to accomplish it in a way that the change takes effect as soon as you press a key, then you can modify it by pressing the `enter` key. Meaning if the user presses `d` and then presses `enter` then the same effect will take place as the effect of pressing `d` key alone described above.