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CMPS 111 Lab 3
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Read-zero.c:

- I added a line to print out the byte count.

Syscall.c:

- I added the functions open_handler, close_handler, read_handler, and create_handler.
- In the syscall_handler, I created the cases for SYS_OPEN which did open_handler(f);, SYS_CLOSE which did close_handler(f);, SYS_READ which did read_handler, and SYS_CREATE which did create_handler(f);.
- I added the function create_handler, which took an intr_frame as input.

Syscall.h:

- I added the header for the added file_elem struct, as well as the necessary fields, including *file, elem, and fd.
- I added the header for the function get_file_elem.

Thread.c:

- In init_thread, Iadded two lines to initialize list &t to fileDesc, and set t->nextDesc to 2.

Thread.h:

- In the constructor for struct thread, I added the fields owned by syscall.c, including the list fileDesc and the int nextDesc.

At this point, many of my tests were not passing so I gave up as I was out of time and too stressed to continue. The tests that were not passing were:

- tests/userprog/args-single
- tests/userprog/args-multiple
- tests/userprog/args-many
- tests/userprog/create-empty
- tests/userprog/create-long
- tests/userprog/create-normal
- tests/userprog/create-exists
- tests/userprog/open-missing
- tests/userprog/open-normal
- tests/userprog/read-normal
- tests/userprog/read-zero
- tests/userprog/write-normal
- tests/userprog/write-zero
- tests/userprog/exec-once
- tests/userprog/exec-multiple
- tests/userprog/wait-simple
- tests/userprog/wait-twice

I came back to my lab a few hours before submission and noticed that the tests were returning a different grade each time. I emailed the TA, and then the professor posted on Canvas that this may be due to the use of the timer msleep function, which could be replaced with a semaphore to ensure the tests passed correctly. I went back and found that the process.c file had one use of the timer function, so I created a semaphore in the thread.c and thread.h files and re-tried. This time more of my test passed and I was able to regrade multiple times and receive the same score of 70%. The tests remaining that I did not pass were:

- tests/userprog/create-empty
- tests/userprog/create-long
- tests/userprog/create-normal
- tests/userprog/create-exists
- tests/userprog/read-normal
- tests/userprog/read-zero
- tests/userprog/write-normal
- tests/userprog/write-zero
- tests/userprog/exec-once
- tests/userprog/exec-multiple
- tests/userprog/wait-simple
- tests/userprog/wait-twice

At this point I was satisfied with my score and chose to submit rather than work until the few minutes left to the deadline.