Activity - File management

Objective

Learn to perform file management in Assembly Language.

Prerequisites

- Before doing the lab, please review the lecture.
- This lab will only work if you run the code on a Linux platform using an Intel x86 platform. The online assembler will not work due to the lack of debugging features.
- Knowledge of how to run assembly code using nasm assembler in Linux OS.
- Knowledge of how to debug an assembly code using `gdb` .

Task

Perform the following tasks:

1. Create a text-based file called "quotes.txt" and add the following contents (4 marks)

> *To be, or not to be, that is the question.*
>
> *A fool thinks himself to be wise, but a wise man knows himself to be a fool.*

2. Append the following quotes in the same file. (5 marks)

> *Better three hours too soon than a minute too late.*
>
> *No legacy is so rich as honesty.*

How to append?

For updating a file, perform the following tasks –

- Put the system call sys_lseek () number 19, in the EAX register.
- Put the file descriptor in the EBX register.
- Put the offset value in the ECX register.
- Put the reference position for the offset in the EDX register.
- The reference position could be:

Beginning of file - value 0 Current position - value 1 End of file - value 2

The system call returns, in case of error, the error code in the EAX register.

What to submit?

1. What were your challenges in performing the lab (from design to the implementation phases)? (1 mark)
2. Working and error-free code. (9 marks)

How to submit it?

- Upload the work in Canvas and clearly define your responses.
- Upload the code in **.txt** format and include comments to describe the code.
- **Do not compress or zip your work.**

Deadline

The deadlines are posted on the Syllabus as well as on Canvas.

Rubric

- All the questions are answered, and the working code is submitted. (Grade 100%)
- Questions are partially answered, and the code has errors or incorrect output. (Grade 50%)