

## Tugcan Barbin 25168 CS307 Homework 4 Memory Mapping & File Reading

Due to my experience, reading file on the cpp language was the worst among the others. It was the slowest way compared to reading the file on the C or reading through memory mapping.

C was better in terms of the time efficiency compared to c++ language when it comes to reading this file by characters. But the difference was very little, they were so close.

Best one was the reading file through memory mapping in C language in terms of time efficiency. It was very fast compared to other methods.

For the implementation part, memory mapping was harder than the others because there are more libraries and we use many arguments in the functions that is included in these libraries and I did not know what were they at beginning.

Due to my little research, my experience is matching with the reality. But there is an important detail we need to consider.

Memory mapping is useful, better in terms of reading files and random accessing the data if the data is large. Otherwise, other methods can be easier and better.

So, file size is important to decide to which method will we use.

To Sum up, memory mapping was better for this homework because it uses virtual memory technique and allow us to do faster and less I/O operations because our text file was quite large. But on the other side, the code is harder to understand and implement. Also, if the file size is smaller, the advantages of memory mapping is gone. In a situation that we have smaller file, I would pick the C++ or C, preferably C++, but if there is a large file to be read or write, I would pick the memory mapping to execute the process more time efficiently.