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Investigation and reflection on the importance and efficiency of the use of the different sorting and searching algorithms

The importance of sorting algorithms is that they allow the user to sort the lines in a text file, is important for optimizing the efficiency of algorithms (such as search and merge Acused in this code) that require input data to be in sorted lists. Sorting is also often useful for canonicalizing data and for producing human-readable output. The computational complexity of the merge is O(n log n)

The importance of searching algorithms is that they allow the user to search for specific lines in a text file in this case between start and date it helps to simplify the visualization of the output. The computational complexity is in the best case O(1) and in the worst O(n) so the average will be O(n/2)

Efficiency plays a significant role in applications in a high-execution-speed environment where performance and scalability are paramount. One of the recommended best practices in coding is to ensure good code efficiency. Well-developed programming codes should be able to handle complex algorithms.

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Referencias:

La eficiencia de los algoritmos La eficiencia de los algoritmos. (n.d.).

https://elvex.ugr.es/decsai/algorithms/slides/2%20Eficiencia.pdf