

CPSC331A3Report

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we select the heap sort algorithm which is introduced in lecture 18. The reason why we choose it is that the correctness of this algorithm has been proven.(Sides of lecture 18). In addition, Heapsort algorithm uses $O(n \log n)$ in the worst case. Also, the storage space required by this implementation of Heap Sort is in $O(\log n)$. (Sides of lecture 18) Hence, it satisfies the requirements for the sorting algorithm we need to implement for this assignment.