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Project Summary

The comparison shows that the heap version of the greedy knapsack problem runs with less basic operations than the same greedy knapsack problem without a max heap. The due to using a max heap, the knapsack problem will always be able to get the highest value from the top of the heap. Without a max heap, the knapsack will have to search for the next possible value to use causing far more basic operations. The max heap will run in linear time as the graph shows verses the non-max heap version which will run in O(n log n).