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CSCI 335 Project 2 Report:

1)

Implementation	Input1.txt	Input2.txt	Input3.txt
Vector	1,925 microseconds	12,208 microseconds	117,138 microseconds
Llist	59,845 microseconds	1,007,432microsec onds	32,281,923microse conds
Heap	3,025 microseconds	9,123 microseconds	37,842 microseconds
AVL Tree	2,995 microseconds	12,510 microseconds	59,995 microseconds

2)

Vector: For the vector method, the worst case run-time for this function is  $O(n \log n)$ . This is because the initial loop has the complexity of  $O(n)$ , and within the loop you have the time complexity of  $O(\log n)$ . This would lead to the worst case complexity mentioned earlier.