

CITS2200 Project

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Cargo:

In my implementation of Cargo, the queries are processed through a nested loop, calculating the total mass of departure at each stop by storing this in an array. This implementation is a brute force implementation, however, will always return the correct answer as the value in the array is directly updated with the new mass value, and then returns the current mass upon departure. Due to the nested loop nature of this implementation, the time complexity will be $O(NQ)$ where N is the amount of stops and Q is the number of queries performed, as the nested loop must iterate through each individual query and the stops to update these values one by one. This is not ideal for larger queries and a Fenwick tree implementation would be better suited for such cases.