

University of Waterloo

CS240 Fall 2022

Programming Question 1 Post-Mortem

This document goes over common errors and general student performance on the programming question. We put this together using feedback from the graders once they are done marking. It is meant to be used as a resource to understand what we look at while marking and some common areas where students can improve in.

Efficiency

- Some students did not implement an algorithm in $O(k + 1)$:
 - Some of these students looped through the input array and reported elements $\geq c$ as they encountered them, an $O(n)$ algorithm.
 - Some students called `heapify` on the input array without needing to, since the array was already in the form of a heap, an $O(n)$ algorithm as well.