Group 7 Sorting Competition

By: Sydney Richards, Sophia Mitchellette, & Emily Schaefer

Algorithm Performance at Sorting Competition

Group Number 7

8th Place

Our algorithm sorted correctly

Data Representation

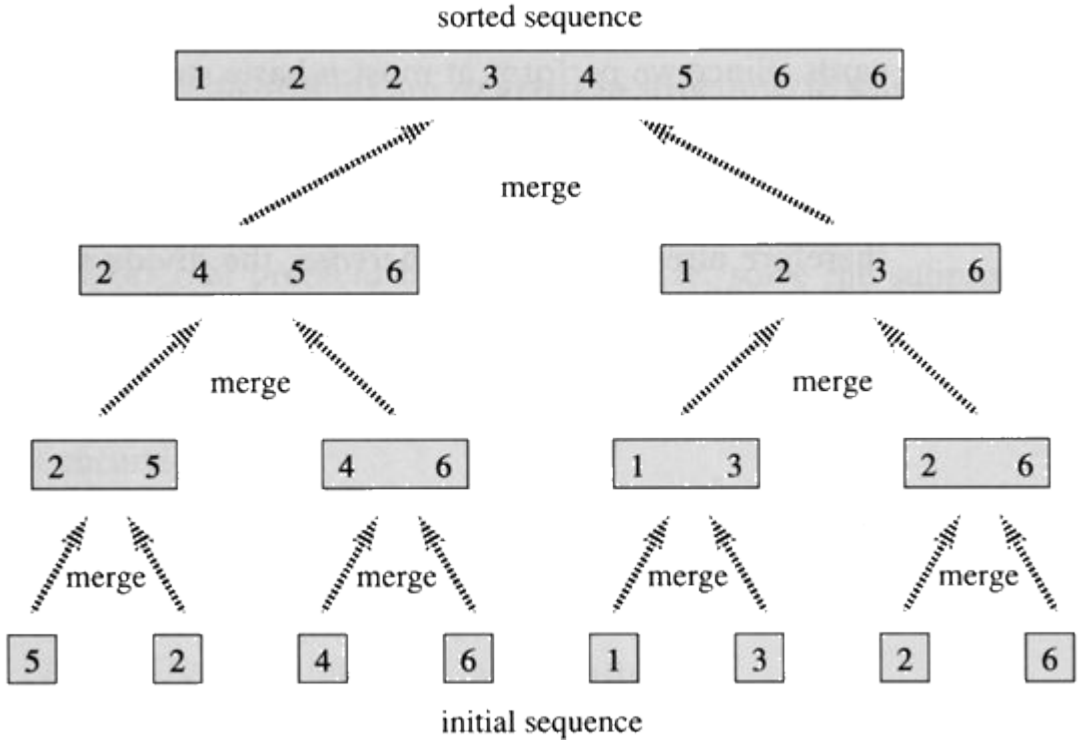
Used an array of arrays. Each array within the array held two doubles (distance and time).

Ex: [[distance, time],[distance, time],[distance, time],[distance, time] ...]

Our Sorting Algorithm

Used MergeSort to compare the arrays in the array.

The algorithm first compared distance, and if the distances were equivalent within the acceptable margin, the algorithm compared time instead.



Running Time & Memory

The worst-case running time of our algorithm is O(n log n).

Non-constant memory used:

distanceArray: holds distances and times (2 * c * n)

returnArray: array returned, holds sorted array (3 * c * n)

tempArray in mergeRanges: holds temporary copy of distanceArray (2 * c * n)