

Assignment-02

Explanation

Task-1(a)

The code reads an array and a target sum from a file, then writes to another file, either the positions of two elements in the array that add up to the target sum, or 'Impossible' if no such pair exists. It uses a two-pointers technique to find the pair.

Task-1(b)

The code is almost similar to Task-1(a) but in this case it uses a nested loop to find the pair.

Task-2(a)

The code reads two arrays from a file, merges them into an array, sorts the merged array using the merge sort algorithm and then writes the sorted array to another file.

Task-2(b)

The code is almost similar to Task-2(a) but in this case it uses a two-pointer technique to merge and sort the arrays.

Task-3

The code reads a list of tasks from a file, each task having a start and end time. It sorts the tasks by their end times and then finds the maximum number of non-overlapping tasks that can be performed. The sorted tasks and the maximum number are then written to another file.

Task-4

A list of tasks having a start and end time. It sorts the tasks by their end times and then assigns the tasks to the people in such a way that each person performs the maximum number of non-overlapping tasks. The total number of tasks performed is then written to another file.