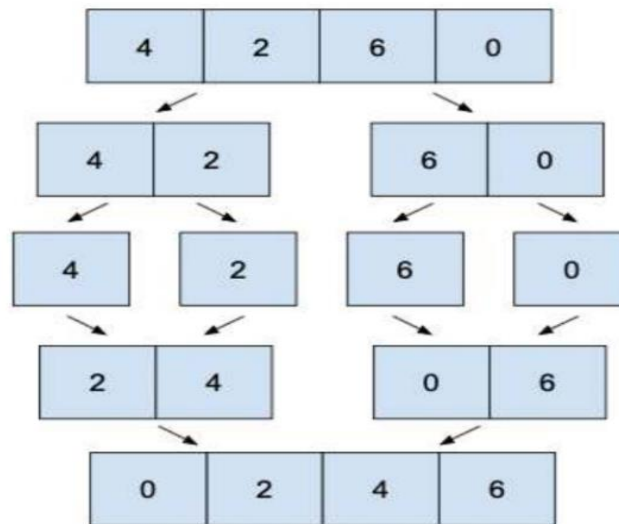


Algorithm Design and Analysis Lab

Assignment 2

Q1. Write a function for Merge sort. Merge sort is a divide-and conquer based sorting algorithm that divides an array into two halves, sorts each half, and then merges them back together in a sorted fashion.



- Implement the merge sort algorithm to sort an array of 1000 random integers.
- Measure the time taken for sorting 500, 750, and 1000 elements individually.