

Task-1 : First I take the length and the array from input and then I convert all the value into integer. Then I call Merge sort function to find the single element. Then I use merge function to add the value in the new list by checking the ascending order. Then I returned the new sorted list.

Task 2 : From the input I convert the array into integer values. Then I call max array num function. It will follow divide and conquer rule. And it check every single element with other elements. And finally it returns the max value.

Task 3 : After converting all values of array into integer. I take a variable count to count the pairs. Then I run a nested loop and check if it fulfill the condition. Then I increase the value of count. Then I return to print the count.

Task 4 : I called merge sort to divide the list. After that it will pass two array to merge function. After adding two arrays, I run a loop to calculate the sum of two value. And it compare it with max. And when length of the list is

sorted equal to ~~min~~.z then I returned the max value.

Task 5: I called quick sort to sort the array.

In this function I called Partition. It will arrange the array with respect to a pivot. Then It will return the index of pivot. And by ~~rec~~ array recursively call quick sort will sort the function ~~in the~~.

Task 6: I made two array from the input file. One is the main array and another array contains queries. Then I pass two array in ~~find_kth_smallest~~ find_kth_smallest_value function. In this function ~~for~~ it will append the smallest value in a list by calling kth_smallest function. In this function it call partition to find the pivot. It will return the index of pivot and kth_smallest function ~~there~~ will find smallest value by recursively calling the function.