# 1- Merge Sort:

Implement a function that takes in an array and returns the sorted version of this array using Merge sort algorithm.

# 2- Quick Sort:

Implement a function that takes in an array and returns the sorted version of this array using Quick sort Algorithm.

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3-Write a C program to delete element from the array at specified position.The program should also print an error message if the delete position is invalid.

**Example**

**Input**

```
Input array elements: 10 20 30 40 50
Input position to delete: 2
```

**Output**

```
Array elements: 10, 30, 40, 50
```

4-You are given a unimodal array of n distinct elements. Give an algorithm runs in O(log n) time to compute the maximum element of a unimodal array

Note :-

- A unimodal array is an array that has a sequence of monotonically increasing integers followed by a sequence of monotonically decreasing integers.
- All elements in the array are unique
- Examples
  - {4, 5, 8, 9, 10, 11, 7, 3, 2, 1}: Max. Element: 11