WIA1002/WIB1002 Data Structures

Tutorial: <u>Sorting and searching</u>

1. Compare between linear search and binary search algorithms by searching for the numbers 45 and 54 in the following list :
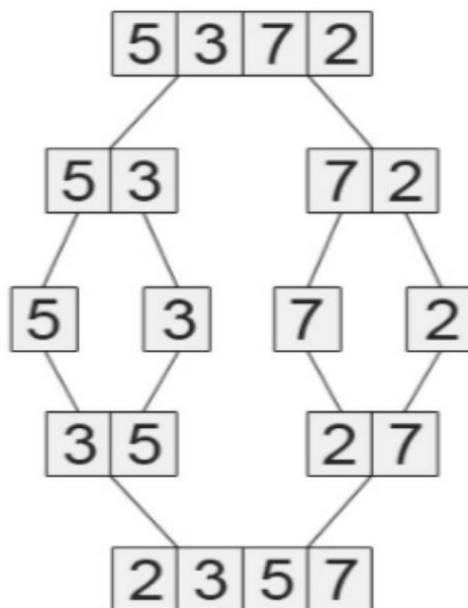
| 3 | 8 | 12 | 34 | 54 | 85 | 61 | 110 |

2. Describe the technique for each sort algorithm below. Given the following list:
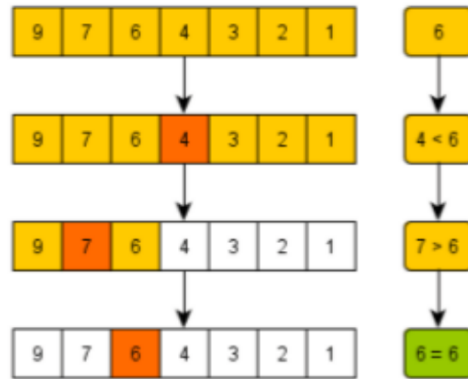
| 90 | 8 | 7 | 56 | 125 | 237 | 9 | 1 | 653 |

Show a trace of execution for:
   a. Selection sort
   b. Insertion sort
   c. Bubble sort
   d. Merge sort

3. Which type of sort algorithm is this?

4. Which type of search algorithm is this?

5. Which type of search algorithm is this?