**Sorting methods**

**\*\*1. Bubble Sort:\*\***

In this method, the list is repeatedly traversed until all necessary comparisons and swaps are performed. The algorithm works as follows:

- Start from the first element in the list and move to the next element.

- Compare the two elements, and if the first element is greater than the second, swap them.

- Move on to the next element and compare it with the element following it, swapping them if needed.

- Continue this process until you reach the end of the list in that pass.

- Once one pass is complete, the largest element will be at the end of the list. Repeat the process until no more swaps are needed.

**\*\*2. Merge Sort:\*\***

This method involves dividing the list into halves and then merging them in a sorted manner. The algorithm operates as follows:

- Start by splitting the list into two equal halves.

- Divide each half into two more halves, and continue this division until you have individual lists or lists with very few elements.

- Begin merging the first two halves and merge the sublists in a sorted manner to create a single sorted list.

- Continue merging the sublists until the merging process is complete, resulting in a fully sorted list.

**\*\*3. Insertion Sort:\*\***

This method builds a sorted list gradually by inserting elements in their appropriate positions. The algorithm works as follows:

- Start with the first element and consider it as a sorted list on its own.

- Move to the next element and compare it with the previous elements in the sorted list.

- Place the element in its correct position within the sorted list.

- Repeat this process with the remaining elements until the entire list becomes sorted.