Assignment 5: Implementing Sort Algorithms using Generics

Problem Description:

Write a JavaFX program that has one output text area to display the sorted list and one input field to accept a list of elements from user.

Your program will implement the following sort algorithms:

1) Generic bubble sort

```
public static <E extends Comparable<E>> void bubbleSort(E[] list)
```

2) Generic merge sort

```
public static <E extends Comparable<E>> void mergeSort(E[] list)
```

3) Generic heap sort

```
public static <E extends Comparable<E>> void heapSort(E[] list)
```

Analyze the algorithm and find out the efficiency of each algorithm.

Upload:
1) Java source code
2) Screen shot of sample run