

## **Maxheap Implementation**

Define a heap class that implements a maxheap using arrays (using ArrayList is fine). The heap elements implement the Comparable interface. The class will have the following methods:

1. **add** → adds an element to the heap
2. **remove** → removes the maximum element from the heap
3. **sort** → returns a sorted ArrayList with the elements in the heap. The sorting process is implemented using mergesort.