Application of Heap Data Structure

HeapSort Algorithm

1) Build heap → minheap or maxheap (Increasing or Decreasing
   - Increasing → minheap
   - Decreasing → maxheap
   - sorted fashion)
   - ↳ O(n)

2) Delete all the elements step by step
   - ↳ & store those deleted elements in any data structure
   - ↳ O(n log n)

Time complexity = O(n) + O(n log n)
- O(n): For building the Heap
- O(n log n): For deleting the all n nodes from the built heap

= O(n log n)

heapq → Python

heapq is the Pythonic library that can be utilized for working with Heap Data Structure