

## Smart Coding & Interview Series

### Top-20 Basic Program

#### (Heap & Priority Queue Applications)

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First, understand the solution building strategies and coding for the problems in LIVE/VIDEO session and then you apply those strategies discussed in LIVE/VIDEO session to solve the following problems. Use your favourite language(C/C++/Java/C#/Python/Scala) for coding.

**Queue & Stack using PriorityQueue:** Implement Stack & Queue Data Structures using Priority Queue API

**K-pair with smallest sums:** <https://leetcode.com/problems/find-k-pairs-with-smallest-sums/description/>

**Array to Heap:** Find an efficient algorithm to convert an array to min heap in linear time.

**Merge Heaps:** Find an efficient algorithm to merge two minheaps into single heap.

**Find Median in DataStream:** <https://leetcode.com/problems/find-median-from-data-stream/description/>

**Running Median:** <http://poj.org/problem?id=3784>

**Password Search:**  
[https://uva.onlinejudge.org/index.php?option=com\\_onlinejudge&Itemid=8&page=show\\_problem&problem=843](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=843)

**Average:** <http://poj.org/problem?id=2833>

**Sliding window:** <http://poj.org/problem?id=2823>