

1. Implement a template based Max-Heap with **insert(value)**, **delete(index)**, **getMax()** functions.
2. Implement a template based Min-Heap with **insert(value)**, **delete(index)**, **getMin()** functions.
3. Implement Heap-Sort using the Min-Heap.
4. Write a program to find the largest k elements in an array using a max heap.

Input	Output
6 3 5 2 9 1 5 6	9 6 5
5 4 7 8 2 3 1	8 7 3 2

Consider the first sample: $n = 6$ and $k = 3$. Array = [5,2,9,1,5,6]. The 3 largest numbers are [9,6,5]

5. Implement a Priority Queue with a Min-Heap with **push(value)** , **pop()** and **top()** functions.