

# Lab Exercise-5

<b>Lab exercise (C/C++):</b>
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| <ol style="list-style-type: none"><li>1. Implement a Max-Heap for a given unsorted sequence of numbers:<ol style="list-style-type: none"><li>1.1. Write the Max-Heapify function</li><li>1.2. Print Max</li><li>1.3. Extract Max</li></ol></li><li>2. Perform the following operation in a Max-Heap:<ol style="list-style-type: none"><li>2.1. Increase a key</li><li>2.2. Insert a key</li></ol></li><li>3. Implement the Heap Sort algorithm.</li><li>4. Write a program to merge k sorted lists using a Min-Heap.</li><li>5. Implement the quick sort algorithm.</li></ol> |
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Note:

- Students need to practice all the questions in the assignments.
- TAs will assign a random question in the lab.