

Course 'Imperative Programming' (IPC031)

Bonus Assignment 10: *Heap Sorting the music database*

1. Assignment

Part 1: Heap sorting the music database

Implement the *Heap Sort* algorithm as explained in the mandatory assignment **10** for the music database of assignment **8** implemented as a *vector-of-Tracks*.

Part 2: Counting comparisons

As in **part 4** of the mandatory assignment **9**, redo the counting experiments of the new *Heap Sort* algorithm with the two versions of comparisons.

Compare the outcomes with the results that you have obtained for the mandatory assignment **9**. Do you experience significant differences? If so, explain them. Document the outcomes and your explanations by means of comments in "*main.cpp*".

Part 3: Showing growth of comparisons

As in **part 5** of the mandatory assignment **9**, redo the visualization experiments of the new *Heap Sort* algorithm with the two versions of comparisons. Document the outcomes by means of comments at the end of "*main.cpp*".

2. Products

As product-to-deliver you only need to upload to Brightspace "*main.cpp*" that you have created with solutions for each part of the assignment.

⇒ **Deadline:** Tuesday 27th of November 2018, 8:30h.