Mandatory Project-1

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SkipListImpl.java contains the code for the implementation for the skipList.

I am adding another file where i implemented the code to calculate the gaps of the array of all the skiplist elements. I somehow failed to integrate both. I look for your comments on this file implementation.

All the methods are implemented under their overriding methods.

Last class variable is used to store the last variable.

In the other file skipListImpl1ll.java: I calculated the gaps by creatng a gap array in the class Entity and storing the gaps.

The Gap array is populated in the add(), whenever an element is added the prev is given by the find method, then according to the number of previous links that passes through the given node and the links that escape above the node the gaps of the previous elements and the newly inserted element is updated.

The Gap[] update is done in the remove method as well , since a node removal results in the addition of all its respective level gaps to its Prev[] respective level gaps.

Find Index is implemented using normal iterator , hence it is taking a lot of time.

Comparision between SkipList and TreeMap:

TreeMap is giving a runnint time of 55Msec for a5 input where as SkipList since it is not ideal is taking 124Msec to run a5input.