B+TREE ANALYSIS

- Shaan Chopra (2015090)
- Aayushi Malik (2015003)

Note:

i. Order of B + tree used is 6 (i.e 6 pointers and 5 keys)

ii. In bottom up bulk loading, we fill at least 50% of the keys. We are not filling the nodes completely during bulk loading to make future insertions lighter.

Top Down:

- Height of B plus tree using this approach is more than the height of the tree using bottom up approach
- Nodes in this approach are always half full. They get filled in the sorted order and split, and none of the new entries go to the old nodes.
- Faster in terms of creation time

Bottom up:

- Height of tree using this approach is less than the height of the tree using top down approach.
- Almost all the nodes are completely filled. This approach is good in terms of space efficiency of the B+ tree,
- Faster in terms of access time

References Used:

1. https://github.com/lemire/externalsortinginjava/blob/master/src/main/java/com/google/code/externalsorting/ExternalSort.java
2. https://gist.github.com/mikelikesbikes/4742901