

18562 - Prashant

/* Evaluation:

1. Code compilation:

1. Does code compile without errors? - Yes.
2. Was a readme.txt file included with instructions on how to compile and run? - yes.

2. Correctness (positive test cases):

The size of the key is hard coded as 3 characters. Any key less than this causes an exception. I had to change the value in the code, recompile and then test with keys2.txt. I then get the java.lang.ArrayIndexOutOfBoundsException error when processing keys2.txt file. The full log is enclosed in eval.txt file in the same folder.

1. Can I insert a key? - Yes. It fails though. Insert possible only from file.
2. Can I delete a key? - no.
3. Can I search for a key? - no
4. Can I view display of tree? - no
5. Can I specify size of B+ tree node (# of keys in a node)? - not without having to recompile the program.
6. Do the nodes satisfy the B+ tree property? - Unable to verify since program fails during launch.
7. Can I create a B+ tree from a file of keys? - Yes. Fails during processing though.
8. Can I save my B+ tree to a file? -No
9. Can I load back the file saved in step 7? - No
10. Can I insert and delete keys from the command line even after loading keys from file? - No.
11. Is Output for keys1.txt correct? - No
12. Is output for keys2.txt correct? - No

3. Programming Style & General Comments:

1. Are there useful comments that complement the code? - no.
2. Is the indentation style neat and consistent? - yes.
3. Are there hard coded limits or magic numbers used in the code? - Yes. Size of node is hard coded. See below.

Why is the key size hardcoded to 3??

4. Are there hard coded file paths used in the code? - Yes. Input file name is hard coded.

```
BPlusTree Bptree = new BPlusTree(4, "../names.txt", 3);
```

4. Exception Handling:

1. Delete on empty tree - delete not implemented.
2. Delete a non-existent key - delete not implemented.
3. Insert a key that exists already (keys3.txt) - fails with java.lang.NullPointerException
4. Call display on empty tree (keys5.txt) - Only empty input file seems to work!
5. Print an empty tree - printing not supported.
6. Empty lines in input file (keys4.txt).

Score - 9/20.

*/