18555 - Sateesh

/* 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? - Partially useful readme file. It did not tell me how to specify the input file. Why is the file name hard coded?

2. Correctness (positive test cases):

Program does not work at launch time itself. I cannot validate any of the below correctness criteria

```
Exception in thread "main" java.lang.IndexOutOfBoundsException: Index: 1, Size: 1
    at java.util.ArrayList.rangeCheck(ArrayList.java:657)
    at java.util.ArrayList.get(ArrayList.java:433)
    at Node.insert_in_leaf(BPtree.java:107)
    at Node.insert(BPtree.java:237)
    at reader.readfile(BPtree.java:316)
    at BPtree.main(BPtree.java:15)
```

1. Can I insert a key? - Unable to validate since code does not run.
2. Can I delete a key? - Unable to validate since code does not run.
3. Can I search for a key? - Unable to validate since code does not run.
4. Can I view display of tree? - Don't see it in the implementation of Bptree.java
5. Can I specify size of B+ tree node (# of keys in a node)? - Don't see the option in the implementation.
6. Do the nodes satisfy the B+ tree property? - Unable to validate since code does not run.
7. Can I create a B+ tree from a file of keys? - Option exists. Fails with an error when used.
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? - Unable to validate since code does not run.
11. Is Output for keys1.txt correct? - Unable to validate since code does not run.
12. Is output for keys2.txt correct? - Unable to validate since code does not run.

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 had coded limits or magic numbers used in the code? - Yes. I don't understand what the below definition does:

```
Interface help{
Public static final int n=6;
}
```

4. Are there hard coded file paths used in the code? - yes.
   Bptree.java:290 - `file2=new RandomAccessFile("test.txt","r");`
5. General Comments:

4. Exception Handling:

1. Delete on empty tree - Unable to validate since code does not run.
2. Delete a non-existent key - Unable to validate since code does not run..
3. Insert a key that exists already (keys3.txt) - Unable to validate since code does not run..
4. Call display on empty tree - Unable to validate since code does not run..
5. Print an empty tree - Unable to validate since code does not run..
6. Empty lines in input file (keys4.txt) - Unable to validate since code does not run.

Score - 9/20

*/