**Data Structures and Algorithms II**

**Fall 2023**

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Assignment: Program #2

Grade: 92

Comments:

The program works for all my tests.

No points off, and it didn't affect my tests, but I might see a subtle bug in setKey (I think I do). If you set the key of the item at position 1, it could be less than the one at position 0 (which is arbitrary), and that could lead to a percolate up when it is possible a percolate down is needed.

Typically, your "remove" in hash table should NOT set isOccupied to false; the lazily deleted cells are occupied. It looks like you got a way with it because in findPos you have a more complex while condition that treats deleted cells the same as occupied cells.

Also, our findPos never returns -1 (it either returns the items location or the position of the first unoccupied/non-deleted cell after), so some of the other "if" stamenets don't really make sense. They are still doing the right thing because of the rest of the "if" conditions, but it makes readability hard. -3 points

It looks to me like there is a bug in hash table's insert function; I am not sure why this is working for all tests. Perhaps I never insert a duplicate key in any of my tests? Where do you check if the key is a duplicate? If so, you need to return 1. This is definitely a bug, I guess I just don't test for it. -5 points