CSDS 233 Spring Session 12

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Disclosure: This is a supplement to class, not a replacement. This should not be your only study activity for exams, it should aid you in studying. I do not have access to the actual exam so questions here will differ from those on the exam.

Session Objectives:

1) **Be able to implement hash tables in Java**
2) **Understand the add and remove methods of a hash table**

Questions

1) Define the following
   a) Linear probing

   b) Quadratic probing

   c) Double hashing

2) When removing a value, what flag do you change?

3) Draw the hash table array as a result of adding 50, 700, 76, 85, 92, 73, 101 using double hashing. The array is of size 7 and the hash function is key % 7. The second hash function is (key + 10)% 7

Coding! This one is somewhat hard so be weary:

https://github.com/jdanninger/CSDS233-Supplemental-Instruction/tree/main/Session%2012%20-%20Hash%20table%20implementation
The **Main.java** has test cases

Please work in the **HashTable.java** file and complete the **add** and **remove** methods using linear probing! **This is challenging. . . don't be too hard on yourself**