Lab 10

Objectives
- Exposure to hash tables
- Practice with insertion into hash tables

Part I

1. Download `Lab10Tester.java`, `Hashtable.java` and `Student.java` to your Lab10 working directory. You will be implementing insert and get in 2 ways:
   1) no collision handling and 2) collision handling with open addressing using linear probing.
2. `Lab10Tester.java` has 5 TODO notes. Follow the instructions in each TODO note.

NOTE: `Student.java` has a `hashCode` function. You should call this function to get the hashcode for a given student. Use the % operator to convert that hashcode to an index within the bounds of your table.
Example:
```
int hashcode = someStudentObject.hashcode();
int index    = hashcode % SIZE_OF_TABLE;
```

CHECKPOINT (Ungraded) – After completing each of the following checkpoints, it might be a good time to check-in with the TA if you are failing any of the tests in Lab10Tester.java or struggling to figure out how to proceed. Remember, please don't hesitate to ask questions if you are unclear about anything.

CHECK POINT 1: TODO 1,2: implement and test `insertCollisions` and `getCollisions` methods
CHECK POINT 2: TODO 3: implement and test `insertLinearProbing` method
CHECK POINT 3: TODOs 4,5: implement and test `getLinearProbing` method

SUBMISSION (Graded) – Submit the `Hashtable.java` file into the Lab 10 page on ConneX.