

Lab 10

Objectives

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

Part I

1. Download all the files found in the lab 10 section on BrightSpace into your Lab10 working directory. You will be implementing `insert` and `get` in two ways:
 - a. no collision handling
 - b. 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: TODO 4 & 5: implement and test `getLinearProbing` method

Remember to demonstrate your progress to a TA during your scheduled lab.