Dictionaries & Hashtables

Start by downloading the provided coding canvas for dictionaries and hashtables.

Question 1 - Dictionaries

Implement the incomplete methods `put(k,v)`, `get(k)->v`, and `remove(k)->v` in class `DictionaryAsDoubleList`

Question 2 - Hashing and collisions

2.1. Consider that *collisions are handled by* ***chaining***.
Draw the 11-entry hash table that results from using function h(i)=(3i+5)%11 to hash the keys 12, 44, 13, 88, 23, 94, 11, 39, 20, 16, and 5.

2.2. Consider that *collisions are handled by* ***linear probing***.
Draw the 11-entry hash table that results from using function h(i)=(3i+5)%11 to hash the keys 12, 44, 13, 88, 23, 94, 11, 39, 20, 16, and 5.

2.3. Consider that *collisions are handled by* ***quadratic probing***.
Draw the 11-entry hash table that results from using function h(i)=(3i+5)%11 to hash the keys 12, 44, 13, 88, 23, 94, 11, 39, 20, 16, and 5.

Question 3 - Hashtable

Implement the incomplete methods `put(k,v)`, `get(k)->v`, and `remove(k)->v` in class `ChainHashtable`

Question 4 - Solving problems with map structures

Write a program count_words.py that reads every word in file `count_words.txt`, and displays the word that occurs the most frequently. Your program should work equally well with a `DictionaryAsDoubleList` and a `ChainHashtable`