COMP 2071 - Data Structures Lab 5 - Word Count

Jake Mathews   - Tester/Debugging
Ford Polia   - Application
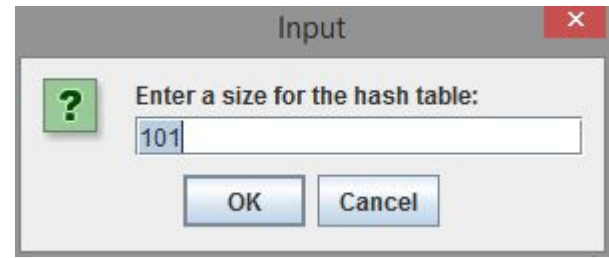Darrien Kennedy   - ADT

ADT - HashTable

- Consists of an array of Doubly LinkedLists.
  - LinkedLists made up of Nodes which carry a key and a value
- Functionalities
  - put(String key, int val)
  - get(String key)
  - contains(String key)
  - remove(String key)
  - getHashCode(int num)
  - toString()
  - clear()

Application

- Reads each of the files and places each unique word in a hashtable as the key.
  - All words are converted to lowercase and all characters that are not letters are removed.
- Value is incremented when it finds a word that is already in the hashtable

Application

- Asks user for size of table, default is 101
- Prints out each word and the number of times it occurs
- Displays statistics for the data in the hash table for each file

```
Input                                  ×
?   Enter a size for the hash table:
    101

         OK        Cancel


for 2
to 1
was 9
hot 2
but 1
closed 3
none 1
open 2
were 4
looked 4
door 2
not 5
yes 1
warm 2
either 2
found 1
they 2
put 1
weather 3
thomas 2
still 2
warmer 1
wasnt 1
windows 3
a 1
be 1
Size: 101.0
Entry Count: 38
Load Factor: 0.37623762376237624
```

Issues and Concerns

- Values were all only being set to 1.

Take-aways

- Implementation of a HashTable