

**WordPairList.java**

**WordPairListDriver.java**

**WordPair.java**

**WordPairList.txt**

This lab involves the reasoning about pairs of words that are represented by a WordPair class.

### WordPair Class

Write a WordPair class that will hold two String values. Write one constructor that will receive the two Strings to be stored in the class. Write an accessor method called getFirst that will return the first of the two Strings. Write an accessor method that will return the second of the two Strings. Write a toString method that will return a String of the two String attributes in the following style (first, second). Write an equals method that will check to see if two WordPair objects contain the same String values regardless of order.

### WordPairList Class

Write a WordPairList class that will store an ArrayList of WordPairs. Write one constructor that will receive an Array of words to pair together. Each word in the array will be paired with all other words in the array. For example, an array of words { "one", "two", "three" } will create an ArrayList of WordPairs of { ("one","two"), ("one","three"), ("two","three") }. Write a method in WordPairList that will return the number of pairs that have matching String like ("one","one") or ("humor","humor"). Write a method that will remove all duplicate pairs in the ArrayList. This means that if an ArrayList has ("one","two"), ("one","two"), and ("two","one"), then all but one of those occurrences would be removed. Write a void method that would printout all the pairs.

### WordPairListDriver Class

The WordPairList Driver Class is where the main method will be written. It should read from a file called WordPairList.txt. Create a String array that is filled with the words from the WordPairList text file. Create and instantiate a WordPairList from that created String array. Print out the WordPairList. Print out the number of pairs with matching first and second words in the WordPair, like ("bob","bob"). Then remove all the duplicates in the list and printout the new WordPairList with all duplicates removed.

### WordPairList.txt Sample File

Here is an example of what WordPairList.txt could hold

```
4
the
more
the
merrier
```

The first number will indicate how many words will be included in the file to be paired.

### Example Output based on WordPairList.txt

```
Original List:
(the,more)
(the,the)
(the,merrier)
(more,the)
(more,merrier)
(the,merrier)
```

Number of Matching first and second words:1

List with duplicates removed

(the,more)

(the,the)

(the,merrier)

(more,merrier)