

CS 212 – Spring 2022 – Project 2

Assigned: 28 March 2022

Due: 11 April 2022

Cutoff: 15 April 2022

This project will add on to what you did for project 1.

Create a class for the Words

Create a class called *Word* using the class for social security numbers as shown in lecture for model. It should have a one-argument constructor with a String parameter (error checking will be done in project 3), get and set methods, equals, compareTo and toString methods.

Use linked lists to store and sort the words

Create a class called *WordList* based on the linked list with head node as shown in lecture. The data in the nodes should be a *Word* as described above. It should have an append method.

Create a class called *SortedWordList* that extends *WordList*. It should have a method called *add* which takes a *Word* as a parameter and inserts that word into the list in a position so that the list remains sorted.

Read from the file and add to the sorted list

For all the words in the input file (same file as in project 1), read a word, instantiate a *Word* object and insert it into the sorted list. When the file has been read, display the words from the sorted list into the six cells of the grid layout just as was done in project 1.

Submitting the Project.

You should now have the following files to submit for this project:

```
Project2.java
WordGUI.java
Word.java
WordList.java
SortedWordList.java
```

(You do not have to submit `TextFileInput.java` or the input file.)

Submit a jar file.

Create a jar file called **Project1.jar** making sure that it contains source code (.java files) and submit that.

Upload your project to Blackboard by the due date for full credit. Do not send projects by email.