Queens College
Computer Science Department

CS 212 – Spring 2024 – Project 1

Assigned: 26 February 2024
Due: 11 March 2024
Cutoff: 15 March 2024

Word Game

This project is loosely based on a word puzzle called the *Spelling Beehive* found in the Sunday *New York Times* magazine. In it, a player is given a set of seven letters and has to find as many words as possible using some portion, but at least five, of those seven letters. Letters may be used more than once. Each correct word earns one point.

The input file

To make a simple example, let's suppose the player is given just four letters (instead of the seven we will use for this project) and has to make words of at least three letters. The first line of the input file will be the letters to use, and the rest of the input file will contain solutions that would be hidden from the user. Here is an example:

```
PRTA
PART
TARP
ART
RAT
APART
TRAP
Etc.
```

You program should read the first line into a String variable for the letters, and the rest of the file into an array of Strings against which the user's guesses can be matched.

Create a GUI for the puzzle with a grid layout of one row and two columns. In the left column put the puzzle letters, and in the right column display the words that the user has found so far (words the user has guessed and your program has found on the solutions list.) and the user's score. Accept words from the user via a JOptionPane.

MessageDialogs should be shown to the user in the following cases: 1. The user has used a letter that is not one of the seven letters given. 2. The user's guess is less than 5 letters long. 3. The user's guess is not in the solutions list.

Submitting the Project.

You should have two files to submit for this project:

```
Project1.java
PuzzleGUI.java
```

Upload your project files to Blackboard by the due date for full credit.