Project description

Start Assignment

Due No Due Date **Points** 100 **Submitting** a file upload

Description: Complete the design and implementation of a Java application.

Create a game in which players create common words of different lengths from a given word. Each letter in the provided word can be reused any number of times to create the new word. Your game should check that the entry is correct and calculate the score for each word based on its length. For example, the game displays the letters ALTERD. The player can make the words alter, altered, dale, lead, leaded, etc.

Your game should have a graphical user interface for the user to enter the words. A user should not be allowed to enter a word that is not in the dictionary.

You can add other rules to your game. (For example, all words created by the user must have at least four letters, a specific letter should appear a given number of times, or another rule of your choice).

Projects are to be completed individually or in a group of two.

Projects that are done in a group of two must include the following additional feature:

Ability to store user names and scores for all the games played by a user - for example, a user can specify a screen name and the top scores for this screen name are stored.

You can add other features to your game not described here.

Design: Develop different UML class diagrams to describe the design. You may optionally include any other diagrams (use case, sequence, activity) that you think are needed. You can also include diagrams of the GUI. A popular tool to create UML diagrams can be found at this link:

http://creately.com/diagram-type/class-diagram

Implementation: You are free to use any tools and/or languages of your choice. The only constraint is that at least a portion of the project must be implemented using Java and the object-oriented design and programming techniques discussed in class. In the project report, describe your contribution to the project and provide references to source code that has been taken from external

sources.

Project Report: Submit a single file with the following format:

1. Table of contents
2. Brief overview of the design
3. Implementation details including
   - names of modules that you have written
   - technologies used
   - special features
   - screenshots of the output
4. Conclusion
5. References
6. A zipped folder containing all the code