Word-Finder

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Utility Function

Find words that relate to an inputted string

1

Variants

✓ [Less]: Find words that contain only the characters of the inputted string

Ex. 'apple' -> ['app', 'pal']

✓ [Equal]: Find words that contain the exact same characters as the inputted string.

Ex. 'apple' -> ['appel']

✓ [Greater]: Find words longer than the inputted string that contain all the characters of

the inputted string

'apple' -> ['applesause', 'apples']

Modify Found Words

[wordKeep]

Keep only words that exactly contain a user-inputed string

Ex. [rings, **rinse**, **risen**, **rises**, rites]

wordKeep: 'se'

Result: [rings, rites]

[wordRemove]

Remove all words that exactly contain a user-inputted string

Ex. [rings, **rinse**, **risen**, **rises**, rites]

wordKeep: 'se'

Result: [rinse, risen, rises]

Sort

- [Length]: Length

- [wwfScore]: Words with Friends Word Value

- [ScrabbleScore]: Scrabble Word Value

Game Function

Guess words that relate to an inputted string

2

Game

✓ Up to four players; name each player by his or her initial

✓ Assuming 'j' is a valid initial and 'lorem' is the word to be guessed, enter input as such: 'lorem-j'.

Ex. Input: 'bkaer'; playing on 'less' setting (aka Scrabble)

'baker-e', 'rake-e', 'bake-e'

✓ View game statistics

Notes

3

1,420

Lines of code over 7 classes

How can the program be improved?

General Sorting

Rather than use bubble sort, (switching adjacent items), could have used merge sort, a more efficient method (worst case $O(n*log(n))$ rather than $O(n^2)$)

Sorting wwfScore / ScrabbleScore

Currently, program calculates words with friends and scrabble score during each iteration of merge sort. Change this by calculating each word value only once.

Demo

4