

Dictionary Frenzy!

Overview:

Dictionary Frenzy is a program that helps users study chosen words from the English Dictionary. A user can look for a specific word's definition and is able to create sets of input words, like on Quizlet. The user will be able to print out the entire set of words in the terminal or in another file and will be able to change a word's definition. Lastly, there are tools to help the user study, including a matching game, which gives users all the definitions and words to match; a matching game, which requires users to match a word and a definition from a pool of choices; and "Learn," which asks users to define given words or name given definitions.

Solidifies and showcases:

- Sorting (Mergesort): the user's inputted words for a study set will be sorted alphabetically
- PriorityQueue: words that users frequently get wrong can be of higher priority when user is learning the words for Flashcard, Learn, and Matching
- RQueue: words can be dequeued randomly for Flashcard, Learn, and Matching
- LinkedList: queues will be created using linked nodes
- Binary Search: search alphabetically in the dictionary
- Parsing: String parsing for the words and definitions in the Dictionary txt/csv file

Necessary Classes:

- *Driver.java*
Serves as a main menu, allowing user to search a word, create a new flashcards set, study an existing flashcards set, or play a game with one of the flashcard sets
- *Dictionary.java*
Attributes include: ArrayList<Word> _dictionary
Methods include: search
- *Word.java* (implements Comparable)
Attributes include: String name, String definition, int timesMissed, Word nextWord, Word lastWord, String ALPHA
Methods include: getName, getDefinition, setDefinition, compareTo, getTimesMissed, setTimesMissed, setNext, getNext, setLast, getLast, alphaCompare
- *Set.java*

Attributes include: String name, Word _first, Word _last, int size, int reviewed

Methods include: add, regRemove, removeR, removeP, getReviewed, addReviewed, getSize, showAllWords

- *Flashcard.java*

Attributes include: Word[] deck, int removeType, int order, boolean randomOrder

Methods include: play

- *Learn.java*

Attributes include: Word[] _deck, int percentRight

Methods include: getPercent, getNext, play

- *Matching.java*

Attributes include: Word[] _deck, int numMatched, String[][] _display

Methods include: getPercent, updateDisplay, printDisplay, play