

Dictionary

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Objective

Dictionaries are widely used and we often take spellchecking for granted. You will be required to create a dictionary that not only provides the ability to search a word, but also to add new words, delete existing words, and edit the definition of a word in the dictionary. For this project you must ensure that you meet all of the following criteria.

Criteria

ORIGINAL CRITERIA

- You must implement a dictionary that contains not only words but also their definition.
- You will be provided with a list of six different Comma-Separated Values (CSV) files containing words and their definitions, as well as for each a list of operations to perform.
- Your solution must be able to read in the data provided and create the dictionary as well as process the accompanying file with the list of operations to perform.
- Your program should also have a CLI so that a user can perform each of the operations from the terminal such as searching for a word to retrieve the definition.

REVISED CRITERIA

- Implement a dictionary to search, delete, and insert words from a text file.
- The text file is composed of words.
- Definitions requirements have been truncated from the requirements.

Tools

IDE: ANDROID STUDIO

- The Dictionary project utilized the programming environment of Android Studio. This IDE allowed us to design the project as a mobile application while still adhering to appropriate Java and object-oriented principles. This should provide an interactable and visually appealing aesthetic to the user.

PROGRAMMING LANGUAGE: JAVA

- We used the Java programming language along with Android Studios to program and implement our algorithms as well as manipulate the app UI to change and listen to event.

The UI: Main Activity Page

1. DICTIONARY

- Displays the title of the document.

2. SEARCHVIEW

- The user can search for their desired word in this search bar. It will display a confirmation of whether the searched word exists or not.

3. INSERT BUTTON

- Sends the user to another activity page so as they might insert their new word.

4. WORDS RECYCLEVIEW

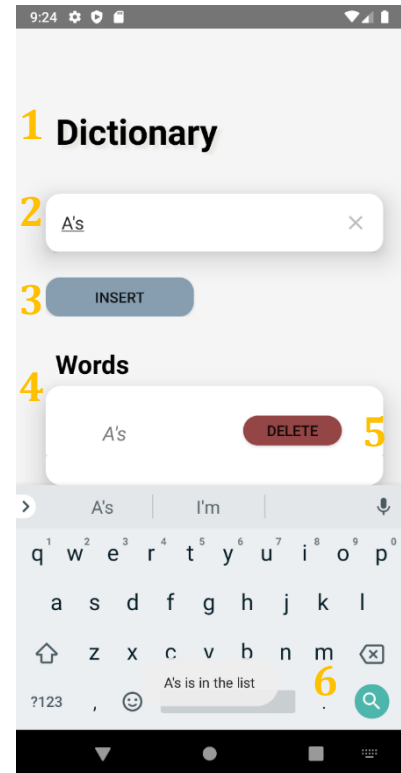
- This Recycleview is where the user can view the words that exist on file as well as the ones they insert.

5. RECYCLEVIEW CARDS

- The words exist horizontally stacked upon each other. Each card has both a word and a delete button.

6. SEARCH TOAST

- Depending on the success of the search query, a toast will inform the user if the word is there. It is case sensitive.



The UI: Insert Activity Page

1. TEXTVIEW

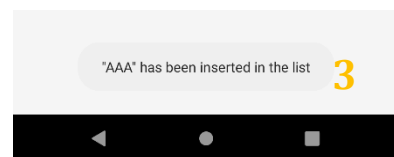
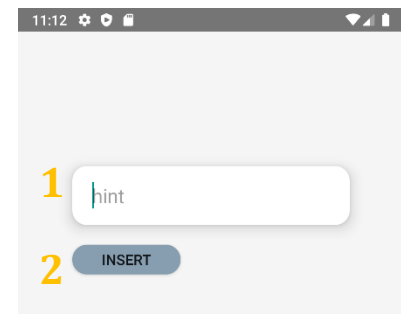
- This is where the user inserts the word they want to see on screen and in the app recyclerview.

2. INSERT BUTTON

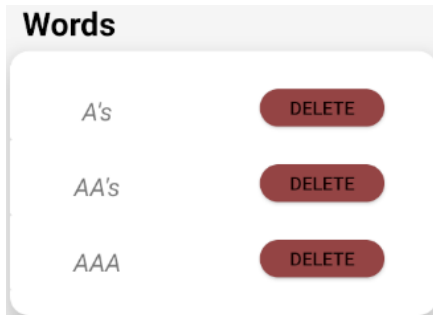
- The insert button inserts the word into the recyclerview and the txt file.

3. TOAST BUTTON

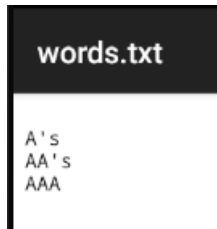
- Notifies the user the word has been inserted in the recyclerview and the txt file upon button click.



Results



THE UPDATED RECYCLERVIEW



THE UPDATED TXT FILE

- Files are located in the system memory +
Android/data/com.example.dictionary/files/raw

PROJECT FILES

[HTTPS://GITHUB.COM/TIWAJO/DICTIONARY.GIT](https://github.com/tiwaojo/dictionary.git)

PROBLEMS

- Could not sort file due to null pointer error. We are aware where the issue is (MainActivity.writeFile). upon write to file on first time, the program adds a new null line to the txt file. This could not be avoided as the file would not append to a new line nonetheless.