

Assignment 3 - Dictionary Application

Marks: 16

API Link: <https://dictionaryapi.dev/>

Description: The motivation of this assignment is to develop a dictionary application where a user will enter a word and the meaning of the word and the related information will be showcased. For this, you will be talking to a server and that provides related information that you will show..

- 1) Main Activity: 2 components
 - a) Text field to provide an word as input
 - b) Upon clicking a button to make api call: the input in the text view should be used to make the api call to the dictionary api. Use AsyncTask for making the request. If the api gives a valid response, the user should be navigated to the list of meanings and audio fragment page. In case of invalid response, display toast if word not found in the dictionary. Do a validation check on the input (only characters are allowed)
- 2) Show the meaning of the word searched: 3 component
 - a) The word as the heading.
 - b) Audio button: when clicked on it, it should download the audio of the pronunciation of the word using asynch task and play it once the download is complete (It is present under the key "phonetics". Sometimes you might find a list, in such a case play any which has a link). Should be present horizontally next to the heading.
 - c) Recycler view: In the JSON returned by the API, you can find a list of meanings for that word under the key meanings. For each meaning the JSON contains definition, examples, synonym, antonym and part of speech. The recycler view should contain item (maybe designed using TextView) and each item should be associated with one item of the meaning list. The item should contain only the part of speech for that meaning and nothing else(for eg: noun, verb etc). When an item is clicked it should open definition fragment. Design the recyclerview using Fragments, i.e., ListFragment and DetailFragment. You might host both of them in one activity or two activities.
- 3) Definition Fragment:
 - a) It should display definition, example, part of speech, antonym and synonym if present in the JSON.

Rubrics:

- ❖ Main activity, creation of API request and validation of API response (**3 marks**)
- ❖ Showing the word as heading, downloading audio using async task and playing it on completion of task (**3 marks**)
- ❖ List of POS (RecyclerView) (**3 marks**)
- ❖ Navigation from one fragment to another on clicking on list item (**2 marks**)
- ❖ UI design using fragments. (**2 marks**)
- ❖ App functions properly (doesn't crash) (**2 marks**)

❖ Definition Fragment has correct info.(1 mark)

Topics Covered:

- > Fragments - Must be used for the application UI.
- > RecyclerView - Showing the content in List View.
- > Networking - Making API request, downloading of a file.