**Words by example specification**

Purpose of the app: the target purpose of the app is to have ability to read books and learn words in easy way.

So, thus App should consist from two main parts: Books shelfs, dynamic vocabulary and game to learn words.

App

Game

Vocabulary

Books

**Books**

1. Books should be displayed on separate screen like a virtual books shelf (opens form main menu).
2. Books should be shown like a grid (use GridView and data about books should be stored in DB SQLite).
3. There is should be several books shelfs which differs books by genre or etc. (use ViewPager for this).
4. User should be able to add and delete books. It should be possible to add books from local storage (internal memory or SD card) and from some internet resources.
5. To find books some search functionality should be available.
6. Each book which was added to a books shelf may have some image icon which represents it content. To get this icon user should be able to do search on local storage and in internet if it is available.
7. Each book should open in separate screen and divides on pages, so that one page on screen and user should be able to leaf pages (use View Pager or etc.) may be add some flip animation.
8. When book opens its content should be parsed and each word should be marked with appropriate color depending on user current vocabulary whether it is “known/unknown/currently learning “.
9. User should be able to see a quick translation in a popup if it touches any word.
10. User should be able select any word (on long press) and mark it as “known/unknown/currently learning “so thus this will update vocabulary DB and immediately will update current opened book – mark all such words in appropriate color.
11. Each book should have a bookmark. All bookmarks should be available as a list from main menu in separate screen, and when user choose some it should open target book on appropriate place (page).
12. User also should see all books list where will be shown how many different words each book has, so thus

User will be able to choose one depending on difficulty. Also, it should show the percentage and quantity of unknown words. It should be possible to sort this list in ascending and descending order.

**Vocabulary**

1. From beginning user could have empty vocabulary, but there should be ability to add to it a 1000 or more most frequent words to speed up vocabulary filling if user already has some words knowledge.
2. Vocabulary should open from main menu in separate screen like a table (use ListView or GridView) which contains word, transcription (if possible) and translate meaning.
3. All data should be stored in DB SQLite.
4. User should be able to view known and currently learning words separately.
5. User also should be able to do common operations with words like add/edit/delete and also sort and quick search.

**Game**

1. Game is used to speed up words learning, there are two game modes should be available: the simple mode where it shows some word and several cards with variants of translation which user should choose as an answer; the hard mode also shows some word but here user should write translation.
2. Words for game get from currently learning vocabulary.
3. There also user should be able to mark showed word as learned to remove it from learning list.