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**Olympia Capstone Project Description**

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# OLYMPIA

# A dictionary with categories, filtering and self-check

# Project description

Olympia is an Android dictionary app that uses public APIs of Oxford dictionary and has some additional features: it allows to add labels to words, putting them (words) into categories, and allows users to check their knowledge through self-tests. Categories are a user defined text and are created to their own needs or interests. The application supports text-to-speech features and is intended to help learners of English language to learn words better and faster. Words can naturally belong to multiple categories which can be altered at any time. Application can aggregate multiple dictionaries.

Example. User can add category “sounds” and when he encounters in a book or on TV words “thud” or “squeak” he will place them to “sounds” category, while learning what is “contemptuous” or “condescension” he will mark them as belonging to “emotions” category. With time this personal vocabulary will grow and the user will be able to review words by categories or other parameters.

# Features

* Get the word definition instantly and assign it a label that will help you to organize your vocabulary.
* Recap what you’ve learned in a game that checks both knowing of the word and its spelling.
* Accessibility features available.
* Account information and a vocabulary are saved on a cloud, so you don’t have to worry about your progress when your phone gets broken or lost.
* Complete challenges, get more stars and be proud of yourself!

# What makes it unique

No applications found on the market allow to personalize the dictionary to any degree. Our app makes it possible to meet one’s preferences and ease the process of learning new words by letting a user sort and organize words. To make it fun challenges and score points are introduced. Additional features like text-to-speech are added to widen the auditory.

# Target audience

Our users are people whose first language is not English. Their goal is to learn it in an easy, efficient and pleasant way. They have some basic knowledge of the language and want to improve it further.

# Existing solutions

1. **Merriam Webster Dictionary**

**Advantages:**

* Search for phrases
* Copy whole sentences and search for each words

**Disadvantages:**

* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

1. **Dictionary.com**

**Advantages:**

* Most trending searches
* Most searching word in a local area

**Disadvantages:**

* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

1. **Dictionary Linguee**

**Advantages:**

* Support different languages
* Can search for meanings from other applications

**Disadvantages:**

* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

1. **The Free Dictionary by FARLEX**

**Advantages:**

* Language translation
* Search by letters

**Disadvantages:**

* Poor UI
* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

1. **Pocket Thesaurus**

**Advantages:**

* Search by letters
* Search for all synonyms

**Disadvantages:**

* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

1. **WorldWeb Dictionary**

**Advantages:**

* Search with missing letters in a word

**Disadvantages:**

* Poor UI
* No features for customization or categorization
* Don’t have any features for voice searching
* Don’t have fun and learning features

# Scope

Basic app is developed for Android phones and watches. It uses the phone storage as backup to save the dictionary. Users have to register on a web service to use the app. That will allow to manipulate licenses for every user and store their data. Additionally, a smartwatch app is provided to complement a mobile solution.

# Risks & Issues

The major risk is a chance to lose the API keys given by a dictionary administration that will lead to app’s malfunctioning. Another problem is developing UI compatible with both Android phones and the watches. Possible technical issues:

1. Synchronizing between Android phone & Android wear.
2. Features implementation:
   1. Implementation of database for user accounts & vocabularies.
   2. Using the app without Internet.

# References

Oxford APIs – <https://developer.oxforddictionaries.com/documentation>