

Project Dictionary – v1

This project is a non-commercial and purely
academicals one

Sabariram

02-Jan-16

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1. VISION

To create a web based English language dictionary, based on references from Oxford Advanced Learner's Dictionary PC version.

2. BASE DEFINITION

A dictionary is a book that gives a list of the words of a language in alphabetical order and explains what they mean, or gives a word for them in a foreign language.

2.1. EXPLANATION OF THE WORD IN DICTIONARY

A word will be used in different **part of speech** and each part of speech has different sub-types, the meaning of word may/may not varies based on the part of speech and **context of use**, in the same context of use they may have different meaning. The word may have different **forms** in different part of speech and may have different forms within the same part of speech.

Phonetics defines how a word should be pronounced and there are predominately two different **accents** NAME (North American English) and BrE (British English), many words have different phonetics in theses accents. **Syllable** is phonological building blocks of a word. They can influence the rhythm of a language, its prosody, its poetic meter and its stress patterns. **Pronunciation** of word in **audio** form for different accent is essential part of learning phonetics.

Words can be part of **idioms** and, in case of verbs, **phrasal verbs**, their meaning should be explained.

Some words express certain **attitude**, some are appropriate for particular **situations** and there are words that are used only in certain **regions**, these traits should be noted.

Structures in which the word is used, synonyms, opposites and provide word(s) that are in the same context/similar usage s.

Examples should be provided in the form of sentence using the word, their idioms and phrasal verbs, in different meaning and in different part of speech without ambiguity.

3. FUNCTIONAL REQUIREMENTS

This section defines overall functions that are expected from this dictionary. These are the primary expectation from the dictionary.

In the following document word and its [explanation](#) will be referred as **word object**.

Functional Requirements:

1. [Word list](#) - **Deferred**
2. [Word Object Elements](#)
3. [Pronunciation](#) - **Deferred**
4. [Search](#)
5. [Add/ remove and edit word objects](#)
6. [Export Dictionary](#) - **Deferred**
7. [Import words](#) - **Deferred**

3.1. WORD LIST

- 3.1.1. As in the [base definition](#) of dictionary, it is a list of [word objects](#), so user should be able to see the list always, similar to how pages of a hard copy of dictionary will look like. The list should be continuous and in alphabetical order.
- 3.1.2. Navigation should be in the form of scroll (mouse wheel/scroll bar/ arrow keys - up & down) and the scroll bar should be indexed with all of the word. While dragging the scroll bar the current index should be visible, current index is the word at the top of the current visible list.
- 3.1.3. The list should highlight the word object in focus, and the highlight should not affect the visibility of other word objects
- 3.1.4. A word object can become in-focus when, scrolling the list (current index) or that word is searched or on mouse click on the word object in the list.

3.2. WORD OBJECT ELEMENTS

- 3.2.1. Part of speech, context of use, forms - **form is not supported in this version**
- 3.2.2. Phonetics, accents, syllable, pronunciation - **only syllable is supported in this version**
- 3.2.3. Idioms and phrasal verbs
- 3.2.4. Examples - **Deferred**
- 3.2.5. Attitude, situations, regions - **Deferred**
- 3.2.6. Structures - **Deferred**

3.3. PRONUNCIATION

Upon clicking audio icon in the word object user should be able to hear the pronunciation of the word in the accent that audio icon grouped to.

3.4. SEARCH

- 3.4.1. User should be able to search for a word.
- 3.4.2. Search should bring the word object of word searched to the top of the visible list and that word object should be in-focus. - *Deferred*, *In this version result of the search will be a single word object*
- 3.4.3. Search should provide auto-completion feature, if the number of words with the current prefix is less than 50. - *Deferred*
- 3.4.4. Auto-correction, if the searched word doesn't exist in dictionary then display words at two [edit-distance](#). - *Deferred*
- 3.4.5. Once a word search provides result, the structures, idioms, phrasal verbs and derived words should be listed separately for quick access. - *Deferred*

3.5. ADD/ REMOVE AND EDIT WORD OBJECTS

User should be able to add or remove a word from the dictionary and should be able to edit an already existing word object.

3.6. EXPORT DICTIONARY

User should be able to export selected/all word object in encrypted form to support the offline version of the dictionary.

3.7. IMPORT WORDS

User should be able to add word objects in batch by importing files that contain the formatted word objects.

4. UI REQUIREMENT

Dictionary-V1 will have a JAVA based UI.

4.1. FORMAT OF WORD OBJECT

The word object should be of following format, refer [this](#) for supported and not supported features:

Line 1: Word in syllabified form(e.g: pro·nun·ci·ation) / accent-1 phonetics [audio icon](#)/ accent-2 phonetics [audio icon](#)

Line 2: Part of speech-1

Line 3: Context of use-1

Line 4: Meaning-1

Line 5: Examples for meaning-1(if any)

Line 6: Meaning-2

Line 7: Examples for meaning-2(if any)

.....

Line i: Meaning-p

Line i+1: Example for meaning-p(if any)

Line i+2: Context of use-n

Line i+3: Meaning-p+1

.....

Line j: Idioms (optional section)

Line j+1: *idiom-1*

Line j+2: meaning of *idiom-1*

Line j+3: Examples of *idiom-1* (if any)

.....

Line k: Phrase verb (optional section)

Line k+1: *Phrase verb-1*

Line k+2: meaning of *phrase verb-1*

Line k+3: Examples of *phrase verb-1* (if any)

.....

Line m: Part of speech-2

Line m+1: Context of use-1

Line m+2: Meaning-1

.....

The visible distinction of the above list should be clear. Meanings should be numbered continuously within a part of speech – not applicable to idioms and phrasal verbs

SAB TECHNOLOGY

5. USERS

The user type is applicable to the online versions only.

There are two types of users:

1. Admin – Have access to all [functions](#)
2. Non-Admin – Have access to only two functions, [word list](#) and [search](#)

Admin users require authorization through *username* and *password*. - [Deferred](#)

6. VERSIONS

Online version – Supports all [functions](#)

PC version – Supports only two functions, [word list](#) and [search](#). PC version is a standalone version; this uses the [exported](#) data as source. - [Deferred](#)