Software Engineering Group Project

Welsh Vocabulary Tutor User Interface Use Case Document

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# Introduction

## Purpose of this Document

The purpose of this document is to describe the use cases regarding the Welsh Vocabulary Tutor application. Furthermore, it aims to describe the typical user(s). Finally, this document has the goal of listing possible error conditions that can happen during runtime.

## Scope

This document specifies how the user Interface will work, describing who is using it, how and in which way any errors are handled.

This document is to be looked at during development to ensure all use cases are represented in the final document. All group members should be familiar with this document and use it as a reference when needed.

This document is also meant for the client to be acquainted with all the use cases for the final product.

## Objectives

This document is meant to aid the production of the user interface to make sure all requirements provided by the client are met, making clear what the user can do when they interact with the system.

# BODY OF DOCUMENT

## Typical users

**2.1.1 General user**

The user is experienced with using computers and wants to learn Welsh. It is not assumed that they have any prior experience learning languages but may have some knowledge in Welsh or another gendered language already.

**2.1.2 Specific users**

* Kain is a 27-year-old Biology teacher who used to live in Birmingham and has just moved to Aberystwyth. Previously he has not had any contact with the Welsh language. He finds it fascinating and decides to learn Welsh. He has learned French previously in school, so he has a good grasp on gendered languages, but doesn’t have any idea of the welsh vocabulary as it’s a unique language. Kain will mostly focus on using the application for the purposes of finding out the type of words as well as to find the welsh equivalents to the words he wants.
* Martha is 18-year-old college student that lives in Cardiff. Her parents are both from Slovakia, but she was born in Cardiff, a couple years after her parents had settled there. She was raised in a Slovakian-English culture and now she is proficient in English. She knows that she lives in Wales but had never thought to understand how Welsh works. She has applied to Aberystwyth University and received her first letter fully in Welsh. This piqued her interest in learning Welsh so she will be extensively using the application to learn new words, utilize the quizzing feature to understand her progress and the flashcards to revise words.

## Use cases

### User can resize window of the app

User wants to resize the window and does so by dragging the corners of the app.

### User can look at dictionary of all words

User wants to look up words in the dictionary, they select the “DICTIONARY” button in the main bar along the top of the screen. Once selected the list of all words is displayed each showing a column for English, Welsh, and type of word. Type of word describes whether the word is masculine or feminine noun in welsh or if it is a verb as well as an ‘other’ type.

### User can search for words from the dictionary

User wants to search a word they know and type it into the search box. They then see a list of words matching what is currently typed into the search bar, the list is narrowed in real time as the word is being typed.

### User can search for words starting with a specific letter

The user wishes to narrow down the list to words that start with a specific letter, they use the button labelled “abc”. When pressed, a menu composed of the current active language’s alphabet is opened. Each letter is a separate button and clicking on one closes the window, filling out the search bar with that letter.

### User can scroll list of words to find desired word

User wants to look through the list of words and scrolls through the list by dragging the scroll pane located on the right side of the window. They drag this scroll up and down using their mouse or touchpad.

### User can add/remove words to/from their Practice List

The user wants to add a word to their Practice List, they do this by selecting “DICTIONARY” in the main bar along to top of the application. Once on the DICTIONARY page they double click on the desired word. The word is then added to the practice list, showing the “Revise?” column to have a checkmark. They view the newly favourited word by selecting “PRACTICE LIST” section in the main bar along to top of the application. Removal works the same, requiring a double click on a practiced word, removing the checkmark and the word itself from the Practice List.

### User can add new words into the dictionary

The user wants to add a new word to their dictionary, they press the floating green plus button located on the bottom right corner of the window. A dialog box is opened in the middle of the screen consisting of the English and Welsh definition boxes and a drop-down menu to select the word type. There is a “Add new word” button that is inactive on opening. Once the user has filled in all the required boxes, the button “Add new word” changes colour and becomes active. They click the “Add new word”, the word is added to the Dictionary and Practice List, then the dialog box is closed.

### User can change the language by which words are sorted

The words are automatically sorted by English, the user wants to sort the words by welsh. They do this by clicking on the button located next to the search bar. The button depicts the current language, presented as United Kingdom flag for English and a Welsh flag for Welsh. When clicked, the language in which the words are sorted is changed to Welsh and the button now depicts the Welsh flag. Later if the user wishes they can repeat this action and change the sorting order back to English. The sorting carries over to the narrowing list in Use Case 2.2.2.

### User can remove words from the dictionary

The user wishes to remove words from dictionary, they right click the word they wish to remove, a drop-down menu is then displayed giving the options “DELETE” and “EDIT”. They select “DELETE”, and the word is removed from the dictionary as well as the Practice List if it was present there.

### User can edit words from dictionary

The user wants to edit words in the dictionary, they do this by right clicking the word. When right clicked a drop-down box is then displayed, giving the options “DELETE” and “EDIT”. They select edit and a dialog window is shown, this contains two textboxes, one drop-down menu and a confirmation button. Here the user edits the English definition, they could also edit the Welsh definition and the type of the word. Once they click the "Revise word” button, the dialog box is closed.

### User can clear the whole Practice list

The user wants to reset their Practice list, remove all words from it. They select the “SETTINGS” button in the main bar along the top of the screen. Once on the settings page the user selects the button labelled “CLEAR PRACTICE LIST” with a description next to it. After clicking the button, all of the words in Practice List will be removed and the Practice List will be empty. A notification message will pop up confirming the clearing of the list.

### User can revise words from the Practice List

The user wants to revise the words from the Practice List, they click on the button along the top of the screen labelled “REVISE”. This shows them a new page containing two buttons, “FLASH CARDS” and “QUIZ”. From here they can choose two ways to revise, these two options are described in use cases 2.2.12 and 2.2.13.

### User can use flashcards to revise

Once the user chooses the “Revise” menu and clicks on the “Flashcard” option, they are presented with a flashcard (only if they have at least one word added to the Practice List). They flip the flashcard to see the definition in the other language by clicking the Flip button. The user clicks the “NEXT” button when they want to see a new word and clicks the “BACK” button when they want to see the previous word.

### User can take tests

Once the user chooses the “Revise” menu and clicks on the “Quiz” option, they are presented with a quiz of various tests, with the amount dependant on the setting they have chosen in the “Settings” menu. They are presented one of three tests randomly at a time.

1. Find the definition – The user is presented a word in a language (dependant on the language setting in the “Settings”) and they are shown 6 random words from the dictionary in the other language. They must choose the correct matching definition.
2. Input box – The user is presented a word in a language (dependant on the language setting in the “Settings”) and they have an input box. They must write the correct definition in the input box.
3. Matching – Only chosen if the user has added at least 4 words into their Practice List. The user is presented 4 words in a language (dependant on the language setting in the “Settings”) and they are shown 4 drop-down menus with the matching definitions to the words. They must match up each word to its correct definition in the other language.

There is a running indicator in the form of a progress bar to show how many of the questions the user has answered from the total amount of questions. There is also a numeric indicator for how many questions have been answered correctly out of the total number of questions answered so far.

After each question a notification popup is presented giving feedback:

* If the question is fully correct and positive message with a green background is displayed.
* If the question was answered incorrectly then the correct answers are displayed in the popup, on a red background.

Once the quiz is complete the user sees a dialog box giving feedback on how many questions they got correct and incorrect. Once closed they are returned to the “REVISE” section.

### User can change settings for revision

User wants to change the settings for revision, they click on the button, “Settings”, in the main menu bar at the top of the screen. They are the taken to the settings page where they change:

* How many tests are used in a single quiz (5 or more in increments of 5 up to a maximum of 30)
* What language should be used for the tests and flashcards (English, Welsh or both)

### User can change the size of the font

Welsh Vocabulary Tutor is accessibility friendly. User can change the size of the font presented in the application’s tables. Once they click the “Settings” button located in the navigation menu, they can choose from one of three options available

* Small – 12 pixels
* Medium – 18 pixels
* Large – 28 pixels

After choosing those options, the user will see the change of font size in Dictionary and Practice List section.

### User can look at help section

User wants help using the app and finds all the instructions how to use the app by clicking on Settings and clicking on “HELP” button.  From there the dialog box opens with information on how to use the application.

## Error conditions

Possible error conditions:

* Empty box - user doesn’t input the word when he is supposed to
* Incorrect input - when user input is required it of the wrong type
* User chooses to open Revise section where there are no words added to Practice List

REFERENCES

[1] Software Engineering Group Projects: General Documentation Standards. C. J. Price, N. W. Hardy, B.P. Tiddeman. SE.QA.03. 1.8 Release

DOCUMENT HISTORY

| *Version* | *CCF No.* | *Date* | *Changes made to document* | *Changed by* |
| --- | --- | --- | --- | --- |
| 1.0 | N/A | 17/02/20 | N/A - original version | tak16 |
| 2.0 | 5.0 | 05/03/20 | Replaced “Revision List” to “Practice List” | mab152 |
| 2.1 | 1.0 | 27/03/20 | Corrected wording in 2.1.1 | soj11 |
| 2.2 | 2.0 | 27/03/20 | Added an extra typical user in 2.1.2 | mab152 |
| 3.0 | 3.0 | 28/04/20 | Reworded use cases to be task orientated | soj11 |
| 3.1 | N/A | 05/05/20 | Rewording for conciseness, making sure document is cohesive to actual implementation. | tak16 |