Software Engineering Group Project

User Interface Specification

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# Introduction

## Purpose of this Document

The purpose of this document is to describe the principles which the User Interface will be based on. It will also be used to outline all User Interface specifications that need to be followed. It will describe typical users, use cases and error conditions.

## Scope

This document will be used to assist the creation of the User Interface by outlining all the specifications that need to be followed. This document does not specify the design of the User Interface. This document should be read by all project members but will mainly be used to guide the User Interface team. It is assumed that the reader is already familiar with the Requirements Specification[1].

## Objectives

The main objective is to aid the team in the production of the user interface by highlighting all specifications that need to be covered. The document will:

* Detail typical users of the software and the use cases they may perform
* Inform of potential error conditions and what can be done about them
* Allow the User Interface team to construct a design that covers all of the use cases

# Typical users

The typical users for this application are non-fluent Welsh speakers and those who are beginning to learn the language but can easily be applied to fluent Welsh speakers.

For the above example, one typical user could be depicted this way:

Gareth has recently moved to Wales and has taken an interest in learning Welsh. Gareth goes through the dictionary, selecting words that he would like to practice and learn and adds them to his practice list. From this, he will then use the multiple revision tools before testing himself on those words. Once Gareth is confident he can translate the words in this practice list and can use them in a sentence, he can then remove them from the practice list and add in new words to repeat the process.

Another example which could be used in one of a fluent Welsh speaker:

David has lived in Wales all of his life and attended a Welsh-speaking school with his first language being Welsh. With English being David's second language; sometimes, he forgets translations of words, David uses the dictionary by changing the ordering to display Welsh words in alphabetical order. From this, David will use the search function to search for the Welsh word he needs translating or will scroll through the dictionary to find the word.

# Use cases

## SE-UC-1 Searching for a word in the dictionary

When a user wishes to search for a word, they have a few options to choose from. [1.1] The first option is that they can use the search box, which can be located at the top left of the screen. As the user begins to type their chosen word into the box the list of words displayed will only be words applicable to what has been entered, if the user was to type in the letters “AN” then only words beginning with that will be displayed. [1.2]The second option the user may have is to manually scroll down the list of words to find their desired word with its translation, this will take longer than searching for the word, but some users may find it useful.[1.3] The third option is to select which language the words are being ordered by; the user can do this by selecting the button of the desired language.

## SE-UC-2 Help

If the user is struggling to use the application, they can click on the help button in the right corner which takes them to the help page will have a navigation bar for each page which will display how to use each function accompanied by images.

## SE-UC-3 Adding a word to the dictionary

The user has the option to add new words to the dictionary. They can click on the "Add words" button which can be found on the navigation bar on the top of the page. They are then presented with a form which they will need to add the English word, The Welsh translation and the word type (This is a drop-down box). Once the user has done this, they can click the submit button which will add the word to the dictionary. This word can then be found by the user by following user case 1.

## SE-UC-4 Using the Practise list

The practise list is where the user can store words that they wish to practice. [4.1] To access this list the user must select the button which is appropriately labelled ‘Practise list’ this will open a tab. They can see every added word by using a scroll bar on the right of the list to get the bottom of the list. The user can close the practice words tab by clicking the practice list button again.[4.2] For the user to add a word to the practise word they have to find their desired word from the dictionary and select the plus button which is to the right of the word and the translation this can then be seen in the practise word tab. [4.3] To remove the word from the list the user just must select the plus button which is to the right of the word.

## SE-UC-5 Revision

The revision page is where all of the revision features can be accessed; each feature has a button accompanied by a screenshot of what the page will display.

## SE-UC-6 Flashcards

The user can use the flashcards function by clicking the flashcard button on the revision page. Once clicked the user will be displayed with a flashcard displaying an English Word the user then has the option to translate the word into Welsh by clicking the translate button or go to the next flashcard by clicking the arrow. All the words shown on the flashcards are from the user's practice list.

## SE-UC-7 Match the words

This feature can be accessed from the Revision page. For this activity, the user is presented with four English words and four Welsh words, the user then must match up the English word to the correct Welsh translation by clicking the box next to the words. All the words used are from the user's practice list.

## SE-UC-8 Test

This feature allows the user to test themselves on all the words on their practice list by showing them a word in English which they then must translate into Welsh using the text box. The user will then be given feedback on their answer; if it is correct, they can progress onto the next question, if incorrect they will have three options; the first being to try again, the second will reveal the answer, and the final option is that they can skip the question.

## SE-UC-9 Pick the Correct word

This feature shows the user an English word, and they are presented with six possible Welsh translations of the word with one being correct and the others being random words from the dictionary. They are then given feedback on their performance and are then taken to the next word.

# Error conditions

The error conditions for the application are very limited due to there not being much user input in the forms of text. One area where there is a margin for error is the 'Add word' page where the user can input their own words into the dictionary. As we are not checking the words they are adding to see if they are actual Welsh words, we have to add restrictions on what the user can input, such as a character limit and restrict illegal characters. If a user were to input either illegal characters or break the character limit, then the application would need to reject the user input and display a message. The message would tell the user that what they have inputted is illegal and explain to them why so they can make amendments.

The same illegal character message would occur in text input fields of the various revision tests the user can perform upon their practice list words. Again, a message would tell the user that what they have entered is illegal if they try and enter illegal characters/words that are too long.

If the user attempts to input a word that already has identical English and Welsh meanings as well as word type, this is a duplicate word and should not be accepted by the program. The program would need to reject this input and give the user an error message stating that the word already exists in the dictionary. The program would need to ensure that the duplicate word was not added to the dictionary.

The user will also have errors in regards to the tests that they can complete, if the user does not have enough practice words they will receive a message informing them that they need more words in their practice list in order to perform the particular revision test they are attempting.

References

[1] Software Engineering Group Projects: Welsh Vocabulary Tutor Requirements Specification. C. J. Price. SE.QA.CSRS. 1.1 Release

DOCUMENT HISTORY

| *Version* | *CCF No.* | *Date* | *Changes made to document* | *Changed by* |
| --- | --- | --- | --- | --- |
| 1.0 | N/A | 21/02/20 | N/A - original version | WJP |
| 1.1 | Issues 10-20 | 23/03/20 | All feedback has now been taken into consideration, and appropriate changed have been made | WJP |
| 1.2 | Issues 10, 12, 31, 32 and 33 | 28/04/2020 | Minor changes made to ensure correct formatting and that feedback from Chris has been implemented | JOR69 |
| 1.3 | Issue 34 | 28/04/2020 | Removed references to star buttons in section 3.4 | JOR69 |