

# **Software Engineering Group Project (G17)**

## **User Interface Specifications Use Case Document**

Authors: B. Barclay-Knight [brb19], F. Comitini [fec11]  
Config Ref: SE\_G17\_UI\_DOC  
Date: 19/02/2020  
Version: 1.2  
Status: Release

Department of Computer Science  
Aberystwyth University  
Aberystwyth  
Ceredigion  
SY23 3DB  
Copyright © Aberystwyth University 2020

## CONTENTS

CONTENTS .....	2
1. INTRODUCTION .....	3
1.1 Purpose of this Document .....	3
1.2 Scope.....	3
1.3 Objectives.....	3
2. TYPICAL USERS .....	3
3. USE-CASES .....	4
3.1 Use-Case 1 – Add new words .....	5
3.2 Use-Case 2 – Search for words .....	5
3.3 Use-Case 3 – Practice Words .....	5
3.4 Use-Case 4 – Open Practice List.....	5
4. ERRORS.....	6
4.1 Attempting to add an empty word.....	6
4.2 Attempting to add a word with illegal characters.....	6
4.3 Attempting to add a word's translation with illegal characters .....	6
4.4 Attempting to play tests with an empty practice list .....	6
4.5 Attempting to use flashcards with an empty practice list .....	6
REFERENCES .....	7
DOCUMENT HISTORY .....	7

# 1. INTRODUCTION

This document is the standard for the user interface of the software. The software will need different sections, with a similar graphic layout, but different functionalities:

- Learning platform
- Practice platform
- Dictionary
- Practice List section

Similar graphic objects, such as buttons, background items and icons will be instantiated multiple times in different parts of the software, so to give an impression of consistency to the user and save time in production. An online presentation showing the functionalities and the overall graphic interface can be downloaded from the server and visualized with PowerPoint, as well as a UML and Use-Case diagrams, available also in this document.

## 1.1 Purpose of this Document

The purpose of this document is to describe the user interface specifications for the Welsh Learning Desktop App that we will be creating, in accordance with the User Interface Specification Standards [1].

## 1.2 Scope

This document will describe typical users of the application, and how they are going to interact with the interface with use-cases. It will also lay out the possible errors that may occur when interacting with the interface and how they shall be dealt with.

## 1.3 Objectives

The objective of this document is to aid the development of the Welsh Learning Desktop App, by considering the typical users we can build the interface to be more user-friendly towards them. Also, by identifying and planning how to deal with potential errors we are aiding the development of the application.

# 2. TYPICAL USERS

### Example user 1

John is an English student who wishes to learn Welsh, he is not studying the language professionally and will use this platform in order to memorize all the Welsh words. He will want to be able to learn the words and choose words to be tested on.

### Example user 2

Jennifer works in a Welsh company and is taking Welsh courses, she already knows some of the language, but she wants to practice more. She will want to choose specific words to be tested on that may be related to her job.

### Example user 3

Ffion is Welsh student who is proficient in Welsh. She still needs to look up in the dictionary sometimes, so she will be able to use this app as a dictionary. She will want to be able to efficiently search for words that she does not know already.

### 3. USE-CASES

See below the use-case diagram I have created. This diagram describes the general paths that a user may take when using the application. Since there are no 'user levels' in this all of the users can take the same paths.



### **3.1 Use-Case 1 – Add new words**

The first path that I will discuss is the dictionary section of the application. The user will press a button on the main menu to take them to this section. The user will have the option to add new words to the dictionary. They will be prompted to enter the Welsh word, the English translation and what type of word it is.

### **3.2 Use-Case 2 – Search for words**

Also, within the dictionary section of the application, the list of words will be displayed, and a search bar so they can search for specific words and they will be able to toggle which language they search in. Next to the words there will be a button that the user should press to add/remove words from the “My Words” list.

### **3.3 Use-Case 3 – Practice Words**

In this part of the program the user will be able to test their skills on some of the words that they have added to their list. The first type of test is that a word from their list will be displayed at the top of the interface and they will have 4 options to choose from. One of these options will be the correct translation and the other three will be random words from the dictionary. Another test method is that the user will be given a word in English or Welsh and be asked to type the translation of it into an answer box. The application will keep track of their score throughout the tests and let them know how they performed at the end.

### **3.4 Use-Case 4 – Open Practice List**

This part of the application will be where the user can view the words that they have added to the list they want to learn. It will display the English and Welsh of each word. The user will also be able to use ‘Flashcards’ in order to help them practice the words that they’ve put in their list and take a practice test.

## **4. ERRORS**

In terms of errors for the application, there is not a lot of user-input that isn't just pressing buttons. There is one part that requires a more complex user-input though, which is where the user can add a new word to the dictionary.

In adding a new word there will be three fields that the user will have to fill out for it to be a valid 'Word' in the program. The fields for the English word and its Welsh equivalent should not be empty or contain invalid characters. The field for to describe the type of word should not be empty or contain an invalid input. If an empty or invalid field is detected then the program should flag this up to the user with an error message, telling them that one of the fields is empty or contains and invalid character.

### **4.1 Attempting to add an empty word**

In the application, there is a possibility for the user to add new words to the dictionary, where they must write the English word, its Welsh translation and the word type. Leaving the fields where the words are supposed to go would cause issues for the dictionary if it were allowed, so we must not allow the user to do this. To prevent this from happening, if the user attempts to add a word with a field empty then a pop up error will appear telling them the issue.

### **4.2 Attempting to add a word with illegal characters**

If the user types anything in the fields required that is considered an illegal character and try and submit it, then the application will show an error message to the user. The error message will tell them that they are attempting to use illegal characters in a field.

### **4.3 Attempting to add a word's translation with illegal characters**

If the user types the translation to a word and there is something that we consider an illegal character, then it will not let them submit it and throw up a warning message to them. It will inform them that they are currently attempting to add a word with its translation containing illegal character(s).

### **4.4 Attempting to play tests with an empty practice list**

If the user attempts to do a play test with no words in their practice list, it will not perform the action and it will throw up an error message to them. It will tell them that they are currently attempting to play test with an empty practice list.

### **4.5 Attempting to use flashcards with an empty practice list**

If the user attempts to use the flashcards function with no words in their practice list, it will not take them to the flashcards section. It will throw up an error message telling the user that they are attempting to use the flashcards with an empty practice list.

## REFERENCES

*[1] Software Engineering Group Projects – User Interface Specification Standards / 1.2 (Release)*

## DOCUMENT HISTORY

<i>Version</i>	<i>CCF No.</i>	<i>Date</i>	<i>Changes made to document</i>	<i>Changed by</i>
1.0	N/A	25/02/2020	First release	Brb19
1.1	#1	08/03/2020	Changes to typical users and use-cases	Brb19
1.2	#5	27/04/2020	Updated use-case and added more potential errors	