

Software Engineering Group Project 20

User Interface Specification

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1 INTRODUCTION

1.1 Purpose of this Document

The purpose of this document is to describe the user interface of the Welsh Vocabulary Tutor program which adheres to the User Interface Specifications Document[2] and General Documentation Standards[1] supplied by the client.

1.2 Scope

This document covers a descriptive representation of what the final user interface will look like, including how the product itself will be interacted with.¹

This document should be read by all project members. It is assumed that the reader is already familiar with the Welsh Vocabulary Tutor Requirements Specification[3].

1.3 Objectives

The objectives of the document are:

- To identify the typical users of the system
- To understand the individual use cases of users
- To predict the errors users may run into
- To describe how the errors will be handled

2 TYPICAL USERS

As described in Welsh Vocabulary Tutor Requirements Specification (*Section 2.3*)[1] the program will be used by Welsh learners who are assumed to be experienced computer users. As this program is fairly basic in function and doesn't require authentication we assume that all users will have access to the same features but may use the program differently.

2.1 Welsh Teacher

Although they're less likely to use the program, the Welsh Teacher can use the program to easily create a dictionary and add vocabulary for their students to load in their version of the program to the study from.

2.2 Welsh Learner

The Welsh learner is an English speaker learning Welsh. They're using the program to help them memorise Welsh vocabulary as they find using a program easier than trying to memorise in other ways due to their competency with computers.

¹For the visual representation see the accompanied presentation document which demonstrates the use-cases of the program with mock-up screens of the UI.

2.2.1 Young Welsh Student

The young Welsh students are less likely to add their own words and a more likely to be given a dictionary file to revise from by their teacher.

2.2.2 Adult Welsh Learner

The adult Welsh learner is likely to be independently learning the language and therefore is more likely to add their own vocabulary which fits their lifestyle or career.

3 USE CASES

This section highlights and describes the use cases of each user.

Key: [*Use Case Reference*] - [*Use Case Name*]

3.1 Welsh Teacher

- 1 - View dictionary
- 7 - Load a new dictionary
- 8 - Add a new word

3.2 Welsh Learners

3.2.1 Young Welsh Student

- 1 - View dictionary
- 2 - Search for a word
- 3 - View practise list
- 4 - Modify the practise list
- 5 - Start a test
- 6 - View flashcards
- 7 - Load a new dictionary
- 9 - Change word ordering

3.2.2 Adult Welsh Learner

- 1 - View dictionary
- 2 - Search for a word
- 3 - View practise list
- 4 - Modify the practise list
- 5 - Start a test

- 6 - View flashcards
- 7 - Load a new dictionary
- 8 - Add a new word
- 9 - Change word ordering

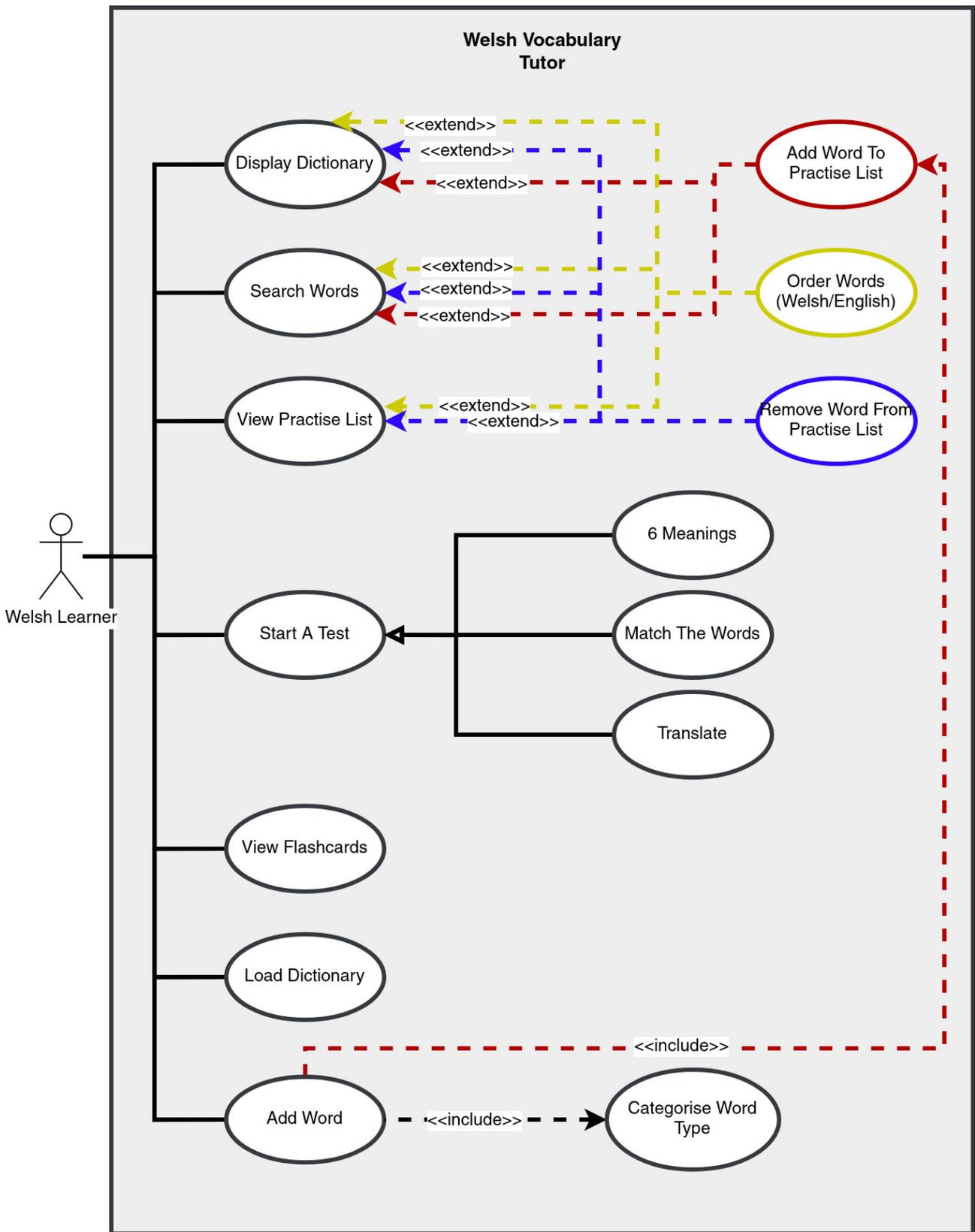


Figure 1: UML Use Case diagram of the Welsh Learner Group Class

3.3 Use Case Descriptions

Use Case 1 View dictionary

When a user wants to view the dictionary they must first click the 'Dictionary 

Use Case 2 Search for a word

When a user wants to search for a word they must first navigate to either the 'Dictionary 

Use Case 3 View practise list

When a user wants to view the practise list they must first click on the 'Practise List 

Use Case 4 Modify the practise list

When a user wants to modify the practise list they must first navigate to the 'Practise List 

Use Case 5 Start a test

When a user wants to start a test they must first click on the 'Study 

Use Case 5.1 Start 'Match The Meaning' test

When a user wants to start a 'Match The Word' test they must first navigate to the 'Study 

²This might not be necessary, as the startup page is the Dictionary page.

³See Welsh Vocabulary Tutor Requirements Specification[3] (Section 3.1, FR9)

many right and wrong answers they have in that specific test.

Use Case 5.2 Start '6 Meanings' test

When a user wants to start a '6 Meanings' test they must first navigate to the 'Study 

Use Case 5.3 Start 'Translation' test

When a user wants to start a 'Translation' test they must first navigate to the 'Study 

Use Case 6 View flashcards

When a user wants to view flashcards they must first click on the 'Flashcards 

Use Case 7 Load a new dictionary

When a user wants to load in a new dictionary they must first click on the 'Load 

Use Case 8 Add a new word

When a user wants to add a new word to the dictionary they must first click on the 'Add 

Use Case 9 Change word ordering

When a user wants to change the ordering of the word list from English to Welsh or vice versa (both ordered alphabetically) they must first be in the 'Dictionary 

4 ERROR CONDITIONS

Each error message prompt should let the user know what has gone wrong and what they need to do to resolve the issue.

4.1 No Dictionary Loaded

If the user hasn't uploaded a dictionary i.e. there are no words loaded, the program should prompt an error when trying to:

- 1 - View dictionary
- 2 - Search for a word
- 3 - View practise list
- 4 - Modify the practise list
- 5 - Start a test
- 6 - View flashcards
- 9 - Change word ordering

The error should state:

'Warning: No dictionary loaded. Please load a dictionary or add a word before moving on.'

This should prompt the user to either load a dictionary file or add a word.

4.2 Dictionary Formatting Invalid

The dictionary file should be a JSON file following strict formatting (*SE.QA.CSRS Section 3.4, DC3*)[3] . If a user attempts to upload a JSON file with incorrect formatting the program should prompt an error when trying to:

- 7 - Load Dictionary

The error should state:

'Warning: Invalid dictionary format. Please upload a dictionary with correct formatting.'

This should prompt the user to load a dictionary file with correct formatting.

4.3 No Practise Words

If the user hasn't added any words to the practise list, the program should prompt an error when trying to:

- 3 - View practise list
- 5 - Start a test
- 6 - View Flashcards

The error should state:

'Warning: No practise words present. Please mark at least one word as a practise word.'

This should prompt the user to add a word to the practise list.

4.4 Not Defining Word Type When Adding A Word

If the user hasn't defined the word type, the program should prompt an error when trying to:

- 8 - Add a new word

The error should state:

'Warning: Word type not defined. Please specify the word type.'

This should prompt the user to select a word type from the drop down menu.

4.5 One Or More Word Fields Not Filled When Adding A Word

If the user hasn't defined the Welsh and English word for a new word, the program should prompt an error when trying to:

- 8 - Add a new word

The error should state:

'Warning: One or more word translation(s) are not defined. Please fill all text boxes.'

This should prompt the user to type in the Welsh and English equivalent words in their associated text boxes.

4.6 Adding a word pair that already exists

If the user attempts to add a word pair that already exists, the program should prompt an error when trying to:

- 8 - Add a new word

The error should state:

'Warning: Word pair already exists. Please enter a new word pair.'

This should prompt the user to type in a new unseen Welsh-English word pair.

4.7 Starting 'Match The Meaning' With Less Than 4 Words In The Practise List

If the user attempts to play the 'Match The Meaning' with less than 4 words in their practise list, the program should prompt an error when trying to:

- 5.1 - Start 'Match The Meaning' test.

The error should state:

'Warning: Less than 4 words present in the practise list. Please add at least 4 words to practise list to play "Match The Meaning".'

This should prompt the user to add at least 4 words to the practise list.

REFERENCES

- [1] *Software Engineering Group Projects* General Documentation Standards. C. J. Price, N. W. Hardy, B.P. Tiddeman, SE.QA.02. 2.3 Release.
- [2] *Software Engineering Group Projects* User Interface Specification Standards. C. J. Price, N. W. Hardy, B.P. Tiddeman, SE.QA.04. 1.2 Release.
- [3] *Software Engineering Group Projects* Welsh Vocabulary Tutor Requirements Specification. C. J. Price, N. W. Hardy, B.P. Tiddeman, SE.QA.CSRC. 1.1 Release.

DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to Document	Changed by
0.1	N/A	2020-02-15	Initial creation	OP
0.2	N/A	2020-02-18	Spell checks, formatting, and added icons	OP
0.3	N/A	2020-02-20	Grammatical corrections, word sort use case, startup	OP
0.4	N/A	2020-02-23	Correct grammar, edits to use case 1, 8, and 9	OP