Software Engineering Group Project  
Testing Document

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Test Specification

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| Test Ref | Req Being Tested | Test Content | Input | Output | Pass Criteria |
| SE-T-001 | FR2 | The dictionary can be ordered by the English words’ order | An unordered list of all English words. | A now sorted list of words. | The dictionary is successfully ordered by the English words in alphabetical order. |
| SE-T-002 | FR1 | The system orders dictionary using English words by default | A list of words as loaded from the JSON file. | The list now sorted by the English alphabet. | When starting the software, the dictionary appears in the English order. |
| SE-T-003 | FR2 | The list is able to be ordered by Welsh words | An unordered list of all Welsh words | A now sorted list of words. | The system is able to order the dictionary in the Welsh order |
| SE-T-004 | FR2 | Special characters do not throw off the ordering | An ordered list of all welsh words. | A now sorted list of words | Special characters like “ȏ” do not affect the ordering of the dictionary e.g. “tȏ” appearing after “tunell”. |
| SE-T-005 | FR1 | User is able to scroll through the dictionary / list of displayed words. | Scroll bar that can be selected with mouse input from the user | Different part of the list displayed, based on the scroller’s movement. | Words list displays words relevant to the scroll bar’s position. |
| SE-T-006 | FR3 | When the user searches for a word, the correct words and translations appear. | Characters the user has input. | Corresponding words are listed. | Only words starting with inputted characters are displayed. |
| SE-T-007 | FR3 | When the user changes the search language the words reorder | Characters the user has input. | The corresponding words in the other language are listed. | When order language is changed, the words change to correspond to the search terms in the chosen language. |
| SE-T-008 | FR4 | The system stores words the user wishes to practice on | A word that is not currently part of the practice list. | The practice list should now contain the added word. | The practice list is modified correctly and stored. |
| SE-T-009 | FR4 | The user can add words to their practice list. | The contents of the practice list. | The list contains the word added. | The user can add words to the practice list without issue. |
| SE-T-010 | FR4 | The user can remove words from their practice list | The content of the practice list. | The practice list with the chosen word removed. | The user is able to remove words from the practice list without issue. |
| SE-T-011 | FR4 | The user cannot add the same word to the practice list twice. | A word that is currently part of the practice list. | The practice list remains unchanged | The user is unable to add a word to the practice list twice. |
| SE-T-012 | FR5 | The user can add their own word to the dictionary | A word that is not currently part of the dictionary | Some indication a new word has been added. | The user is able to add their own words, the words are also stored correctly. |
| SE-T-013 | FR5 | A blank word will not be added to the dictionary. | Submit a blank input as a new word. | An error saying the input is blank. | Nothing is added to the dictionary and an appropriate message is displayed to the user. |
| SE-T-014 | FR5 | All words must have a type | A word without a type listed. | An error saying all words need a type. | No changes are made to the dictionary and a suitable error is displayed. |
| SE-T-015 | FR5 | All words must have both and English and Welsh version | A word added with either an English or Welsh version missing. | An error saying a word needs to be in both Welsh and English to be added. | All words in the dictionary has a welsh and English version, system displays appropriate error otherwise. |
| SE-T-016 | FR5 | The user can not add a duplicate word into the dictionary | A word already in the dictionary. | An error saying the word already exists. | No changes are made to the dictionary and an error is displayed. |
| SE-T-017 | FR5 | Words with illegal characters cannot be added. | A word not in the dictionary that contains an illegal character | An error saying the word is not valid. | Illegal characters that do not appear in either languages are not added into the dictionary, error message is displayed. |
| SE-T-018 | FR5 | Word types can only be masculine/feminine nouns, verbs or other. | A word with a listed type that is not correct. | An error telling the user the type is invalid. | The user is unable to add a word with an unsupported type. |
| SE-T-019 | FR5 | New words are added to the practice list. | A new word. | An indication the word is now in the practice list. | Any new word is automatically added to the practice list. |
| SE-T-020 | FR6 | When a noun is displayed, the system shows what the words gender is welsh is. | Any noun from the dictionary | The welsh form’s gender is shown. | All nouns in the dictionary show their gender when displayed. |
| SE-T-021 | FR6 | When a verb is displayed the English form is prefaced by “to”. | Any verb from the dictionary. | The English form has “to” before it. | All verbs in the dictionary are prefaced with “to” |
| SE-T-022 | FR7 | The user can view their practice list. | A button is pressed to bring the user’s practice list up. | The practice list is displayed. | The user is able to access their practice list. |
| SE-T-023 | FR7 | The user’s practice list will not be displayed if it is empty | A button is pressed to access the practice list. | An error is displayed saying the list is empty. | The user cannot access the practice list if there is nothing in it. |
| SE-T-024 | FR8 | User is able to generate English flashcards based on words in the practice list. | The contents of the practice list. | A flashcard containing a word from the practice list. | The user is able to see an English flashcard with a word from their practice list. |
| SE-T-025 | FR8 | User is able to generate Welsh flashcards based off the words in the practice list. | The contents of the practice list. | A flashcard containing a welsh word from the list | The user is able to see a Welsh word on a flashcard. |
| SE-T-026 | FR8 | User is able to see the flashcards translation after seeing the flashcard. | The word on the flashcard. | The translated version of the word on the flashcard. | The user is able to view the flashcards translation. |
| SE-T-027 | FR8 | The user is able to generate multiple flashcards based off the practice list. | A queue of all words in the practice list. | Words are taken out of the queue until the user is done. | User is able to go through flashcards one by one. |
| SE-T-028 | FR9 | A word is displayed, and the user is given 6 words to choose from for the correct translation. | A random word from the practice list. | A word for the user to translate from the practice list.  6 words as answers. One being from the correct answer, with the others being randomly picked from the dictionary, all unique. | The user is given 6 options to choose as a translation for the displayed word, 5 are random 1 is correct.  System behaves appropriately when a right or wrong answer is picked. |
| SE-T-029 | FR9 | User is given a word in one language and asked to translate it. | Translation to displayed word typed by the user. | A message is displayed if the user is incorrect, otherwise the user is told their answer was correct. | System is able to see if the user typed the correct translation. |
| SE-T-030 | FR9 | User is given 4 words and their translations all jumbled up, must match them. | Pairs of words from the practice list sorted by the user. | User is told if they are right or wrong. | System checks if the user matched all words correctly, and behaves appropriately. |
| SE-T-031 | FR9 | Jumble practice method is only available if there are at least 4 words in the practice list. | The contents of the practice list. | An error is thrown if there are not at least 4 words in the practice list. | The practice method will not start unless there are 4 or more words in the practice list. |
| SE-T-032 | FR10 | User is able to run tests from their practice list. | User presses a button to sort practicing. | System queues several practice methods for the user. | Several practices are queued up for the user to go through. (Selected randomly) |
| SE-T-033 | FR10 | User has a tally of how many tests they got right | A tally is increased every time the user gets a test right. | The tally is output once all tests are over. | With every test the user passes they are given a point, the tally of these points is kept and displayed once all tests are done. |
| SE-T-034 | FR10 | User is given positive feedback on getting a test right. | The test output saying the user passed it. | Some kind of congratulatory message to encourage the user. | The system displays positive feedback to the user when they pass tests and do well. |
| SE-T-035 | FR10 | User is given the correct answer to a test after getting it wrong. | The test output saying the user has failed. | The correct answer is displayed. | The user is shown the correct answer to the previously completed test after failing it. |
| SE-T-36 | PR1 | Any user input is reflected onscreen within 1 second. | Any input provided by the user | The user’s input displayed on screen | Any input is reflected on the users’ screen within a second. |
| SE-T-37 | PR2 | The software runs on a standard PC within the Department of Computer Science | The software is run. | The software displays and runs correctly. | The system runs correctly on a standard pc. |

# References

SE.QA.06 - Test Procedure standards [1]  
Requirements Specification for Welsh Vocabulary Tutor [2]  
SE.QA.04 - User Interface Specification Standards [3]  
SE.QA.02 General Documentation Standards [4]