Group Project 07 Test Specification

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1 INTRODUCTION

1.1 Purpose

This document displays any tests that can be used to test the robustness of our system. These tests will be used as a guideline to see whether our implementation passes or fails at any of these tests.

1.2 Scope

This document contains a series of tests that the testers should carry out to check that the system works correctly. Each test is labeled with a test reference number, making it easier to report issues if a test failed, a description of the test, an input to the text, an output and a pass criteria. This document will be used alongside development to make sure that our application works on all areas tested.

1.3 Objective

- Clearly lists each test which should be tested.
- Provides the user with an easy way to input data into the application.
- Provides an easy way to check each expected output.
- Provides a way of determining whether the test passed or failed.
- Provides the team with a way of knowing what passes and fails with the application

2 TEST SPECIFICATION TABLE

| Test Ref | Req Tested | being | Test Content | Input | Output | Pass Criteria |
|----------|---------------|-------|--|--|---|---|
| SE-F-001 | FR1 [1] | | Check the user can successfully create a new walk. | Touch the create walk button. | Prompted for Title of Walk, short and Long description of the Walk. | Passes if when the start button is pressed, the screen for enter- ing information about a walk ap- pears. |
| SE-F-002 | FR1 [1] | | Check to see if the co-ordinates have been set, and begin recording. | The Name of the walk to "Aberystwyth" and Description = "Aberyst- wyth" | Prompt a message telling the user that the walk is being recorded. | If there's a message which notifies the user that the walk has started to record then the location has been set. |
| SE-F-003 | FR1 [1] | | Check to see if the options to cancel the walk are displayed once the ap- plication starts recording. | Set the name of the walk = "town" and location = "Aberystwyth" | There should be an option to can- cel the current walk. | If the information has been set successfully, there will be a button, which will be enabled showing an option to cancel the walk. |
| SE-F-004 | FR1 [1] | | Check to see if the options to save the walk to the server are displayed when the application finish recording | Set the name of the walk = "Hills" and location "Trefchan" | There should be an option to save a walk. | If the information has been set successfully, there will be a button which allows the user to save the walk. |

| SE-F-005 | FR1 [1] | Check to see if the options to add text and photos about the location are displays when the application starts recording | Click set a point of interest button on the walk. | The window which allows you to set a short and long description with a title and image will appear. | If the information has been set successfully, the window will show and tell you that you can enter in information into the short and long description. |
|----------|---------|---|---|---|--|
| SE-F-006 | FR1 [1] | Check to make sure the walk is successfully saved | Click save a walk, when you have finished. | Produce a message telling the user they have correctly saved all information to the database | Correctly output a message to the user telling them that they have sent the infor- mation correctly to the database. |
| SE-F-007 | FR1 [1] | Check to make sure the POI is successfully saved | Save a point of interest at a point during the walk | Adds to the list of POI of the walk | Passes if the point of interest has been successfully added to the list of POI |
| SE-F-008 | FR2 [1] | Check to see if the information about the POI is successfully saved | 1. Save a description, short description and a picture. | You are then taken back to the add point of interest screen. | Passes if you can successfully add the information to the POI and then return back to the add point of interest screen. |
| SE-F-009 | FR2 [1] | Only allow one word for the Tour name | Set the name of the walk to "Aberystwyth" | You should be allowed to continue with no errors. | Passes if you can set the name, and allows you to enter the rest of the data. |

| SE-F-010 | FR2 [1] | Entering tour name as two words | Set the name of the walk to "Aberystwyth Town" | You should be prompted with a red box around the walk Title, with a label stating it's more than one word. | Passes the test is the red box is present and there's a label saying that the walk name is invalid. |
|----------|---------|--|--|--|--|
| SE-F-011 | FR2 [1] | Check that the walk titles character length is greater than 1. | Leave the walk title blank | Prompted with a red box around the walk title explaining it's less than 1 character. | Passes the test if it produces the red box with text explaining that there needs be more than 1 character. |
| SE-F-012 | FR2 [1] | Check that walk name contains only letters. | Enter "£4558" as a walk name | Red box around the walk name with a label say- ing invalid let- ters. | Passes if there's a box around the walk name saying that there's invalid characters in the text box. |
| SE-F-013 | FR2 [1] | Check the short description is less than a 100 characters | Enter "This walk was quiet" | Allowed to continue to the long description, with no warning. | Passes if there are no error messages that appear. |
| SE-F-014 | FR2 [1] | Check the short description is greater than 0 | Enter "" - so you leave the box blank | Produce a red box around the short description saying they need to enter a short description. | Passes if the short description has a red board and a message prompting the user to enter a description. |

| SE-F-015 | FR2 [1] | Enter the short description to be over 100 characters | Enter "The walk was too long and too stressful, it wasn't amazing I wouldn't do it again it was a too dull" | "The walk was too long and too stressful, it wasn't amazing I wouldn't do it again it was a too du" with a message saying that they have reached the 100 character limit | If it cuts the description at the given place and tells the user that it may have cut of some of the description because it's over the 100 character limit. |
|----------|---------|---|---|--|---|
| SE-F-016 | FR2 [1] | Check the long description is less than a 1000 characters | Enter "The walk in general was very peaceful the scenery was good. It would be nice to do this on a dry day, as it was too wet when we were walking, not that this put us off. My favourite place was the castle in Aberystwyth, I would definitely recommend going there." | Allow the user to continue and take a picture, without any warnings appearing on the screen | This test passes if there are no error messages produced and it allows the data to be saved to the database. |

| SE-F-017 | FR2 [1] | Check the long | Enter "" - leav- | There will be | Passes if there's |
|----------|---------|----------------|------------------|-------------------|-------------------|
| | | description is | ing the long de- | an error popped | a notification |
| | | greater than 0 | scription blank. | up saying that | which tells the |
| | | | | are you sure you | user that they |
| | | | | want to leave the | have left the |
| | | | | long description | information |
| | | | | blank. | blank and that |
| | | | | | they've not en- |
| | | | | | tered a detailed |
| | | | | | description for |
| | | | | | the walk. |

| SE-F-018 | FR2 [1] | Enter the long description to be over 1000 characters | Enter "Today I started my first walk with this applicationI thought that it would be a good idea to test it locally on some smaller walks | Tell the user that the length is too long and cut off at the 1000 character: | This will show a red box around the long description telling the user that they have entered the long description has exceeded the 1000 characters and they may want to cut it down. |
|----------|-------------|---|---|--|--|
| | Aberystwyth | University / Comp | uter Sciencerabs | 9 | of 21 |

| | | | but then it got a bit chilly so I left the beach this meant that I turned back. As I turned back the tide came in I ended up getting wet feet But then the sun came out. I would really recommend this walk | | |
|----------|---------|---|---|---|---|
| | | | | | |
| SE-F-019 | FR2 [1] | Check to make sure they can't enter a lot of spaces in the title or the name of the walk. | Enter just spaces in the title of the walk or the name of the walk | A red error box to show that there's just spaces in the text box. | Passes if there a red box showing an error warning around the text field with just spaces in. |

| SE-F-020 | FR2 [1] | Check they can't enter a symbol for a new Walk name | Enter "!"\$%&*()—??/# } as a name for the walk | There should ; be a red box around the text field telling the user that they can't enter those characters as a walk name | Passes if there was a red box around the text field, identifying an error. |
|----------|---------|--|---|---|--|
| SE-F-021 | FR2 [1] | Check they can't enter a symbol for the description. | Enter $!\%\hat{\&}^*()-??/\#;[]$ as a name for the short and long description | There should {be a red box around the text field telling the user that they can't enter those characters as a description. | Passes if there was a red box around the text field, identifying an error. |
| SE-F-022 | FR3 [1] | When removing the POI make sure all the data is removed with it. | Remove a POI in the application, during run time. | The POI is removed and outputs a popup telling you that the data has been removed. | Passes if there is a pop-up telling the user that the information has been successfully been removed from the POI. |
| SE-F-023 | FR3 [1] | Make sure the POI counter is updated | Remove a POI from the walk. | This will then decrement the POI counter by minus 1. | Passes if it successfully decrements the counter by one. |

| SE-F-024 | FR3 [1] | Make sure there's a pop up that we have deleted the POI | Remove a POI from the application. | Pop-up a message telling the user that they just deleted a POI from their application. | Passes if once they have successfully deleted the POI from the walk, it will show a pop-up informing them they have deleted the POI from the application. |
|----------|---------|---|--|--|---|
| SE-F-025 | FR1 [1] | Make sure that we can finish and walk and stop a walk. | Press stop the walk option on the application. | This should tell the user that they're about the stop the walk, and that they will finish recording. | Passes if there's an error message telling the user that they are about to stop the application. |
| SE-F-026 | FR3 [1] | Adding a name to the location | Enter "Town" as the name for the location | Allows you to carry on with entering information | Passes if you can carry on using the information without an error warning |
| SE-F-027 | FR3 [1] | Entering no name for the location | Enter "" for the location name | Error pop up saying you need to enter some text | Passes if the app prevents you from entering any more information. |
| SE-F-028 | FR3 [1] | Make sure theres a time stamp | Input a location and set all asso- ciated informa- tion | Return on screen the time it was taken. | Passes if the screen displays the time they finished entering in the information. |

| SE-F-029 | FR4 [1] | Add one photo from camera | Click and take one photo using the camera | Adds the image to the screen in a thumbnail view. | Passes if the image saves to the users library of images. |
|----------|---------|---|---|--|--|
| SE-F-030 | FR4 [1] | Add Multiple photos from camera | Click and take more than one photo at the current location at the camera. | Adds the selection of images in a thumbnail view ready for viewing. | Passes if it allows to have more than one image per point of interest. |
| SE-F-031 | FR4 [1] | Make sure it's in a jpg format | Try to add a non-jpg image from the photo library. | Message telling to user that only jpg files can be selected | User is unable to select a non-jpg file. |
| SE-F-032 | FR4 [1] | Warning message when no name is entered for the photo/location | No input in the name field | Output should be a pop-up error message | $\begin{array}{cccc} Error & message \\ which & doesn't \\ allow & the & new \\ photo & to & be \\ placed & without \\ a name & & \end{array}$ |
| SE-F-033 | FR5 [1] | Cancel a Walk | Select that they want to cancel the walk from the options menu. | Asks user if they're sure they want to cancel the walk | Passes if they can cancel a walk they are currently on, and it deletes it from the server and the local copy. |
| SE-F-034 | FR8 [1] | Make sure an image, short description and long description are set. | Enter a short description, long description and an image for a POI. | Be able to move onto the next screen after fin- ishing entering information into the POI. | Be able to navigate back to the map, after the POI has been added. |

| SE-F-035 | FR8 [1] | Check that all POI have co-ordinates associated with them. | Click on a POI on the website. | It will show the X co-ordinates and the Y co-ordinates. | Passes if when viewed the user can see the x and y co-ordinates related to the POI. |
|----------|---------|---|---|--|---|
| SE-F-036 | FR8 [1] | Check that there are at least 3 walks displayed on the list_walks.php | Click the list_walks.php page | This will then output to the user the walks that are currently in the database | Passes if there are at least 3 walks, with a short description about them displayed to the user, that they can click on and view the walks in further detail. |
| SE-F-037 | FR8 [1] | Enter a page that's not there, so we can check the 404 pages | Enter foo.php into the URI | This should produce a 404 page which follows the design of the other pages, informing the user the page doesn't exist. | Passes if they once they have selected the wrong page they will be re-directed to a 404 page, which will inform the user they have a wrong URI |
| SE-F-038 | FR8 [1] | Check that the user can use the website successfully and easily. | Navigate the website and check all the links. | This should be easy to navigate and all links work correctly. | Passes if the user can use the website with ease, and they will not struggle and if all the links work correctly. |

| SE-F-039 | FR8 [1] | Check that the website is standard compliant with CSS and HTML5 | Check all source code is valid with the W3C validator. | There should be no errors, or warnings and it should pass the test successfully. | Passes the test if there is no warnings or errors in the validator and it passes for HTML5 and CSS2/3 standards. |
|----------|---------|--|---|--|---|
| SE-F-040 | FR8 [1] | User can navigate the website between the home page and the walks page | User clicks the Navigation but- ton and the Home button | After clicking each button the website directs the user to the page they clicked | It passes when the pages link correctly and it allows the user to navigate between the homepage and the walks page. |
| SE-F-041 | FR9 [1] | Check the database receives a title | Title of a walk received from the application | Title is written to the database | Pass if the title is inserted into a new record in the database |
| SE-F-042 | FR9 [1] | Check the database receives a description | Description for a walk re- ceived from the application | Description added to the record of the new walk | Record has a description |
| SE-F-043 | FR9 [1] | Check the database receives a list of co-ordinates | Co-ordinates received from the application | Add them to the database | Co-ordinates are added to the record |
| SE-F-044 | FR9 [1] | Correct form for sending data to the server | Information about a walk name, descrip- tions, coordi- nates (start and end point, localizations), photos | Data send as MIME mes- sage via HTTP POST | Data is dispatched to the server |

| SE-F-045 | FR7 [1] | Close the app successfully | Application is switched | Data should be stored in a temp file that is used to restore later | Application creates a temp file with all data |
|----------|---------|--|--|--|--|
| SE-F-046 | FR7 [1] | Close the app and load back up showing any cur- rent data/walks | Close the app and tap the app to re-load it | It should close the app, go to the main screen and then when loaded it should show all the in- formation on a current walk. | Passes if when closed it will show all the information from the walk they're currently on. |
| SE-F-047 | FR8 [1] | Select a walk on the web applica- tion | Select a walk from a list of walk. | Show all corresponding information on a walk. | Passes if when a walk is selected it shows the short description, long description, title and any images associated with it. |
| SE-F-048 | FR4 [1] | See all images associated with the walk in jpg form | Enter an image with a .jpg extension. | That it allows the information to be added to the POI. | Passes if it allows the user to add a jpg image to the POI. |
| SE-F-049 | FR9 [1] | Reject data for a walk if it is corrupt | Information about the route, start and end points | Error message for corrupt data if it is corrupt (i.e. missing start or end point for a walk) | Error message displayed. |
| SE-F-050 | FR9 [1] | Save all the data correctly to the SQL relational database | Add all fields to the database. | The information will be stored in the appropriate fields. | It stores all the information into the appropriate fields, associated with the walk. |

| SE-F-051 | FR9 [1] | Confirmation message that it has sent to the server correctly | Save and send a walk that they're on. | A pop-up message telling the user that they have send the information correctly. | Passes if when a walk is sent to the database. Can be viewed in the show_tables.php webpage. |
|----------|----------|--|---|--|--|
| SE-F-052 | EIR1 [1] | Ask someone to use the applica- tion to see if it's easy to use | Allow an outside user to use the application | They will give feedback on the application. | Passes if they think the application is easy to navigate and use. |
| SE-F-053 | PR1 [1] | Make sure the response time is less than a second | Click an item on the screen. | The corresponding information should be displayed within one second of pressing. | Passes if the response time for clicking an item on the application is less than 1 second. |
| SE-F-054 | PR2 [1] | Check the application works on at least 2 devices | Check on a phone and a tablet. | Should display the same infor- mation and act the same too. | Passes if the application can be used successfully by both devices With only minor layout changes in the UI |
| SE-F-055 | PR2 [1] | Check the website works, and validates | Click all links and run under the validator checker. | There should be no errors and everything passes. | Passes if the website validates correctly and all links and scripts work accordingly to how they're supposed to. |

| SE-F-056 | PR2 [1] | Check the website works on the most popular internet browsers | Load the website on Firefox, Chrome, Safari, Opera and Internet Explorer | The pages should load correctly. | Passes if the website loads quickly and correctly on every browser. |
|----------|---------|--|--|---|---|
| SE-F-057 | FR1 [1] | Check start walk button | Clicking the "Start walk" button | The walk screen is brought up which then asks for walk details and starts recording | Requests the user to enter in a walks name and description |
| SE-F-058 | FR8 [1] | Check Images, title and de- scription appear on POI on the map | User clicks a POI on the map | Popup showing the title, de- scription and any images asso- ciated with the walk | The popup on the map shows a title, description and any images |

3 REFERENCES

[1] Software Engineering Group Projects. *Requirements Specification*. C. J. Price and B.P.Tiddeman. 1.2 (Release). 7 November 2013

4 DOCUMENT HISTORY

| Version | CFF No. | Date | Section Changed From Previous Version | Changed by |
|---------|------------|------------|---|---------------|
| 1.0 | N/A | 02/11/2013 | Set the Original Document Layout | RYG1 |
| 1.1 | N/A | 03/11/2013 | Added Objective, scope and added SE-F-001 to SE-F-015 | RYG1 |
| 1.2 | N/A | 03/11/2013 | Renamed the file to standard accordance | RYG1 1 |
| 1.3 | N/A | 04/11/2013 | Added SE-F-016 to SE-F-021 | ZAL |
| 1.4 | N/A | 06/11/2013 | Added SE-F-022 to SE-F-048 | RYG1 |
| 1.5 | N/A | 07/11/2013 | Added SE-F-049 to SE-F-051 and removed the term GPS from SE-F-002 because location data is not entirely GPS | MVZ |
| 1.6 | N/A | 07/11/2013 | Added description for the FR6 database tests | MVZ |
| 1.7 | N/A | 09/11/2013 | Corrected some spelling mistakes, changed date format to be consistent, added page break before contents, added description to SE-F-027, some clarification of pass criteria. | HFB1 |
| 1.8 | N/A | 12/11/2013 | Added in Referencing to the requirements documents. Organised the document. Edited some errors and issues raised. | RYG1 |
| 1.9 | N/A | 14/11/2013 | Added a few descriptions. Changed the SE-F-028 test from checking coordinates to checking the username and password. | MWD5 |

| 2.0 | N/A | 14/11/2013 | Re-organised the documents table. Added tests to make sure it matches the use-case, made amendments to the current document, updated reference numbers and updates empty rows | RYG1 |
|-----|-----|------------|---|------|
| 2.1 | N/A | 15/11/2013 | Spell checked and added SE-F-70 to SE-F-76. | ZAL |
| 2.2 | N/A | 15/11/2013 | Changed the version number, changed the status | RYG1 |
| 2.3 | N/A | 15/11/2013 | Added SE-F077 to SE-F-084 | MVZ |
| 2.4 | N/A | 15/11/2013 | Removed duplicated tests, updated the version number for release | RYG1 |
| 2.5 | N/A | 15/11/2013 | Added SQL injection tests SE-F-083 and SE-F-084 | MVZ |
| 2.6 | N/A | 15/11/2013 | Changed status and version number. Spell checked. Updated document objectives | MDA |
| 2.7 | N/A | 12/02/2013 | Updated the document, removed feature creep and wrote in LaTeX | RYG1 |
| 2.8 | N/A | 16/02/2013 | Removed Bernie's feedback | RYG1 |