

Software Engineering Group 09 Project Test Specification

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CONTENTS

CONTENTS	2
1. INTRODUCTION	3
1.1 Purpose of this Document	3
1.2 Scope.....	3
1.3 Objectives.....	3
2. TEST PROCEDURES	3
APPENDIX A – ALL ABERYSTWYTH PUBS	20
APPENDIX B – ALL ABERYSTWYTH PUBS ALPHABTICALLY	21
APPENDIX C – YOKOS ATTRIBUTES.....	22
REFERENCES	23
DOCUMENT HISTORY	23

1. INTRODUCTION

1.1 Purpose of this Document

The purpose of this document is to define the test procedures to be employed when executing a formal test process on the software component of this project.

1.2 Scope

This document covers a wide variety of tests designed to guide the development of the project's software component, thus helping the product to meet the requirements described by the client in the Requirements Specification document [1]. The tests are further influenced by the User Interface Specification [2], reflecting the visual design decisions that have been previously established by the group.

The tests described within this document are intended to be used for the purposes of system testing; the testing of complete systems consisting of several Java classes, usually enacted by those with no or minimal involvement in the development of the system in question. The process of designing the module tests (i.e. tests for individual Java classes, created and performed by those coding a given class) could be informed by these systems tests, but it is emphasised that the design of module tests should be more heavily focused on the inner workings of the code, rather than the project specifications at large.

This document should be read by all those involved in a formal testing process. Whilst this document aims to provide a general overview of the specifications described in the two aforementioned documents, reading these documents is encouraged as this will prove useful in understanding and refining the tests.

1.3 Objectives

This document is intended to identify, list, and describe the necessary test procedures to be carried out during formal testing processes. These tests will be described in largely objective and specific language, to provide those performing the tests with easily repeatable steps and consistent goals. Adherence to these tests will help to ensure that the software component of the project functions as intended, in an overall goal to satisfy the functional requirements specified by the client.

2. TEST PROCEDURES

Test Ref	Req being tested	Test Content	Input	Output	Pass Criteria
SE-001	FRD1	Test to check if software is displaying the proper content on start-up.	Start the desktop software.	Displays start screen.	User is shown the correct screen; one which gives the user the option to browse existing towns or create their own.
SE-002	FRD2	Check if the user is prevented from entering the name of an existing town.	User enters "Aberystwyth" and clicks on create town button, which was previously added into the pub list (Aberystwyth).	Town is not created and displays the "Town already exists" message.	Town is not successfully created.
SE-003	FRD1	Test to check if selecting a town and clicking on the "continue" button takes user	User clicks on "Aberystwyth", a town whose data is supplied with the software, then	Displays the edit pub screen for the town of Aberystwyth.	User is shown the correct screen; one where they can edit or delete existing pubs and add new pubs. User is greeted with a

		to the correct screen.	clicks "continue" button.		selection of pubs from Aberystwyth, including "Bar46" and "Inn on the Pier".
SE-004	FRD2	Check that invalid address inputs are rejected.	User enters the address "aaaa" and the postcode "aaaa", and proceeds to click on the "save changes" button.	User is not allowed to continue adding the pub as the program displays the message "Did not find address".	Pub is not created.
SE-005	FRD2	Test to check if an existing inputted pub address and post code is accepted by google maps.	User enters the following existing address for "Harleys" pub: "Eastgate", "SY23 2AR". User then proceeds to click "OK".	User is displayed the coordinates of "X" and "Y" for the following address and postcode.	User is shown proper "X" and "Y" coordinates.
SE-006	FRD2	Test to check if program allows the user to enter multiple pubs.	User attempts to add the following pubs- "Pier Pressure", "Academy" and "Mill inn".	User is taken to edit pub page, and asked to fill in the name, description, address, choose characteristics, photos. The user after has a choice to "save changes and exit" or to add another "add next pub".	All pubs are successfully created.
SE-007	FRD2	Test to check if user can edit chosen pub.	User clicks on "Aberystwyth" town and proceeds to choose the "Pier Pressure" pub and then clicks on "edit selected pub".	Displays form for user to fill description for "Pier Pressure" pub.	"Pier Pressure" pub that was successfully edited and added onto the pub list and is viewable from the pub list page.
SE-008	FRD2	Test to check every content in screen is displayed as intended.	User clicks "Add a new pub" for the town "Aberystwyth"	User is taken into the edit pub page where a name, description, address, characteristics and photos of the pub are required. The page also includes the OK, saves changes and exit, add next pub and a back button.	Program displays the edit pubs page accurately and correctly without any missing buttons or features.
SE-009	FRD2	Test to check if "Back" button	User clicks on the "Back" button to exit	User is taken back into the pub list menu.	User is taken into correct pub list menu.

		takes user back to menu.	the edit pub page for the “Aberystwyth” town.		
SE-010	FRD2	Test to check if “Add a new pub” button takes user to adding pub section.	User clicks “Add a new pub” button from the pub list page.	User is taken to the pub adding page where they need to enter the name, description, address, characteristics and photos for the “Pier Pressure” pub.	User is taken into correct page and given the options to save changes and exit, add the next pub, or go back to the pub list menu.
SE-011	FRD2	Test to check if pub name already exists.	User enters “Pier Pressure” as a new Pub, which is already added into the pub list.	User is shown an error message saying “Pub is already created, and not allowed to “save changes”.	Pub with similar pub name is not successfully created.
SE-012	FRD5	Test to check if text box can be edited on.	User clicks on text box for name, description address.	User can edit the text box they choose.	User able to edit text box without any issues.
SE-013	FRD5	Test to check if character limit is fixed to 45.	User enters the name of a new pub, which exceeds the 45-character word limit and proceeds to click on “save changes and exit”.	Pub name is too long and user is shown the “Cannot be saved: characters too long” error message.	Chosen pub with the exceeded pub name is not successfully created and added to the pub list.
SE-014	FRD5	Test to check if “OK” button creates coordinates for the address used.	User selects the “Kanes” pub and proceeds to add “16 Corporation Street” and “SY23 2BT” as their address and clicks the “OK button.	User is shown the “X” and “Y” coordinates from the entered address; also presented with the URL for google maps from the coordinates.	User is shown the correct coordinates and google maps URL.
SE-015	FRD5	Test to check if “Save changes and exit” button works correctly as intended on edit pub page.	User clicks “Save changes and exit” button after creating “Pier pressure” pub.	User is taken back into the pub list page after clicking on button.	The pub, “Pier Pressure” is successfully created and saved into the pub list.
SE-016	FRD5	Character limit for description should be limited and set to 495.	User enters description about pub whilst exceeding 495 words and clicks “Save	User is displayed an error message saying, “Cannot be saved: description too long”, after clicking the “Save changes and exit” button.	The pub is not successfully created.

			changes and exit" button.		
SE-017	FRD5	Test to check if GPS location is correct.	User enters the address for the "Harleys" pub, which is "Eastgate" and "SY23 2AR".	Coordinates for "Harleys" pub is shown as "X" and "Y". A google maps URL is also outputted after clicking on the "OK" button.	Correct location coordinates and google maps URL shown for "Harleys" pub
SE-018	FRD5	Test to check if photo URL adds the chosen image.	User copies a URL of an image and pastes it into the "photos" box, and proceeds to click "See image" button, then "Save changes exit" if they are happy with the chosen image.	User is shown a preview of the image URL that was entered when they click on "See image" button.	Image URL displays the correct image without any errors.
SE-019	FRD5	Test to not allow invalid image URLs to be added as an image.	User proceeds to copy and paste an invalid image URL into the photos box, then click on "See image" button.	Displays error message saying "Invalid image link".	User is not able to display the chosen URL.
SE-020	FRD5	Check if "Yes" option displays chosen characteristic on page.	User selects "Yes" for "Club", "Loud Music and "Has TV" characteristics for the "Pier Pressure" pub.	Selected characteristics are displayed on page for the "Pier Pressure" pub.	Correct characteristic is displayed on page.
SE-021	FRD5	Check if "No" option displays chosen characteristic on page.	User selects "No" for "Serves Food, "Has Real Ale" and "Allows dogs" characteristics for the Pier Pressure pub.	Selected characteristics are displayed on page for the "Pier Pressure" pub.	Characteristics are displayed on page.
SE-022	FRD8	Test to see if user can edit existing pubs.	User selects "View/Edit pubs".	User is taken into a pub editing page.	User is taken into correct page- pub editing page.
SE-023	FRD8	Test to see if user can view existing pub information.	"Pier Pressure" pub, then proceeds to click on "edit selected pub".	User is taken into the "Pier Pressure" pub editing page and shown all the information.	User is taken into correct page and shown the correct information relating to the "Pier Pressure" pub.

SE-024	FRD8	Test to check if editing pub name is possible.	User clicks on "Name" text box.	User can edit the "Name" text box.	User allowed to edit "Name" text box.
SE-025	FRD8	Test to check if user can change description of their pub.	User clicks on "Description" text box.	User can edit the "Description" text box.	User allowed to edit "Description" text box.
SE-026	FRD8	Test to check if user can change "GPS Coordinates".	User clicks on "Address" box and proceeds to change the address, then clicks on "OK" button.	User is shown the updated coordinates and google map URL.	User allowed to edit GPS coordinates.
SE-027	FRD8	Test to check if user can change "Characteristics" for their pub.	User selects a characteristic and chooses yes or no.	Edited characteristic is displayed on the filter page.	User allowed to change characteristic.
SE-028	FRD8	Test to check if user can edit existing image URL.	User clicks on "photos" box and proceeds to change URL, then clicks on "See image" button.	Updated image is displayed to the user.	User can edit already existing image URL.
SE-029	FRD8	Test to check if clicking on "Yes" or "No" on a selected characteristic correctly filters it.	User either clicks on "Yes" or "No" after selecting a characteristic.	Characteristic is added to a filter list or not, depending on the user's choice.	Correct chosen characteristic is added into the list, and the proper chosen characteristic that was selected as "No" is not added into the filter list.
SE-030	FRD8	Test to check if user has selected a filter to either be set to "Yes" or "No".	User does not click "Yes" or "No" button, but still proceeds to click the "Save changes" button.	User is shown an error message saying, "Fill all filters".	Error message is displayed for the user.
SE-031	FRD8	Test to check if more than one filter can be added into the filter list.	User chooses a second filter to either be "Yes" or "No".	New characteristic is added into the filter list.	Correct chosen characteristic is successfully added into the filter.
SE-032	FRD8	Test to check if different combinations of filters can be added into the list.	User selects four characteristics and adds it into the filter list.	Chosen filters are displayed for the user to see characteristic is already added.	Correct chosen filters are added into the list properly and displayed for the user to see.
SE-033	FRD6	Test to check if edited pub list is saved.	User selects "Pier Pressure" to edit on and proceeds to click on "Save changes and exit" button.	User taken off edit screen and back into viewing pub lists, which also includes "Pier Pressure" pub.	Pub lists are successfully saved.

SE-034	FRD6	Test to check if user is given option to cancel current edited pub list by clicking on "Back" button.	User clicks on "Back" button when editing pub list.	User is taken out of edit screen and into the pub list page.	Pub list changes are successfully discarded.
SE-035	FRD6	Test to check if "Back" and "save changes" buttons work when clicked.	User chooses to click either option.	"Back" button takes user back to menu and "save changes" button saves changes and takes user back to menu.	Buttons successfully function properly.
SE-036	FRD4	Test to check if chosen pub deleted off the list of pubs.	User chooses a pub to delete, then clicks on "Delete selected pub" button.	Pub is deleted off the pub list.	Correct pub is successfully deleted off list.
SE-037	FRD4	If list is empty, deleting pubs should not be an option.	User proceeds to click on "Delete selected pub".	Program displays an error message "Please select a pub to delete".	Program does not allow user to delete anything as no pubs exist and warns them with a error message.
SE-038	FRD4	Test to check if Pub list menu shows right pubs for their town.	User clicks on "Aberystwyth", then "Continue".	User is shown a list of pubs for the town "Aberystwyth".	User greeted with correct pubs for Aberystwyth.
SE-039	FRD3	Test to check if past lists load.	User chooses to load existing pub list by selecting "Aberystwyth" town.	Shows previous existing pub list for the town "Aberystwyth".	Displays the correct chosen existing pub list.
SE-040	FRD3	Test to check is already created pub list is displayed.	User selects "Aberystwyth" and then the "Continue" button. User then proceeds to check if "Pier Pressure" pub is displayed.	User is displayed with previous past list content for the town "Aberystwyth", including the "Pier Pressure" pub.	User should be shown the correct past list content that they chose.
SE-041	FRD3	Test to see if option to select load past pub list.	User starts application, selects "Aberystwyth".	User is displayed with the pub lists for the chosen "Aberystwyth" town.	User is taken into the correct page when application starts and allowed to load last pub list.
SE-042	FRD7	Test if town data loads from the database.	Create a new town. Save it. Close the software. Reopen the software.	The start screen is displayed.	The newly created town should be displayed on the start screen.
SE-043	FRD7	Test if pub data loads from the database.	Create a new pub. Save it. Close the software.	The list of that town's pubs is displayed.	The newly created pub should be displayed on the list.

			Reopen the software. Navigate to the town in which it is saved and open its pub list.		
SE-044	FRM1	Check that a list of pub lists is displayed on start up.	Start the mobile software.	The mobile software should start and display a list of pub lists.	A list of pub lists is displayed, including the supplied Aberystwyth pub list.
SE-045	FRM2	Check that no filter conditions are selected by default when opening a pub list.	Select the "Aberystwyth" pub list from the start screen. Open the list of filters using the "Filter Pubs" button.	The list of filters should be displayed.	All filters are set to "No Preference".
SE-046	FRM1	Check that the correct pub list is opened once a pub list is selected from the start up screen.	Press the back button. Select the "View Pubs/Create Pub Crawl" button.	A screen with a list of pubs should be displayed.	All of the pubs associated with Aberystwyth (see Appendix A) are displayed.
SE-047	FRM2	Check that all pubs are displayed when the default filters are active.	Observe the current screen.	Every pub in the pub list should be displayed.	All of the pubs associated with Aberystwyth (see Appendix A) are displayed.
SE-048	FRM1	Check that the loaded list of pubs is in alphabetical order.	Observe the current screen.	A screen with a list of pubs should be displayed.	The pubs are listed alphabetically (see Appendix B).
SE-049	FRM2	Check that the "Yes" filter condition works correctly for the "Serves Food" filter.	Press the back button, then select "Filter Pubs". Select "Yes" for "Serves Food". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that serve food.	Only pubs that serve food are displayed. This includes: Bar46; Scholars; Inn on the Pier; Yr Hen Orsaf/Wetherspoons; and White Horse.
SE-050	FRM2	Check that the "No" filter condition works correctly for the "Serves Food" filter.	Press the back button, then select "Filter Pubs". Select "No" for "Serves Food". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that do not serve food.	Only pubs that do not serve food are displayed. This includes: Mill inn; Harleys; Downies; Pier Pressure; Yokos/Why Not Bar & Lounge; Cambrian Hotel; The Libertine; Kanes; Academy; and Angel.
SE-051	FRM2	Check that the "Yes" filter	Press the back button, then	A screen with a list of pubs should	Only pubs that serve real ale are displayed.

		condition works correctly for the "Has Real Ale" filter.	select "Filter Pubs". Select "Yes" for "Real Ale". Press the back button, then select "View Pubs/Create Pub Crawl".	be displayed. These pubs should only include those that serve real ale.	This includes: Mill inn; Scholars; Yr Hen Orsaf/Wetherspools; Kanes; and Academy.
SE-052	FRM2	Check that the "No" filter condition works correctly for the "Has Real Ale" filter.	Press the back button, then select "Filter Pubs". Select "No" for "Real Ale". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that do not serve real ale.	Only pubs that do not serve real ale are displayed. This includes: Bar46; Harleys; Downies; Pier Pressure; Yokos/Why Knot Bar & Lounge; Inn on the Pier; White Horse; Cambrian Hotel; The Libertine; and Angel.
SE-053	FRM2	Check that the "Yes" filter condition works correctly for the "Allows Dogs" filter.	Press the back button, then select "Filter Pubs". Select "Yes" for "Allows Dogs". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that allow dogs.	Only pubs that allow dogs are displayed. This includes: Bar46; Scholars; White Horse; and Kanes.
SE-054	FRM2	Check that the "No" filter condition works correctly for the "Allows Dogs" filter.	Press the back button, then select "Filter Pubs". Select "No" for "Allows Dogs". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that do not allow dogs.	Only pubs that do not allow dogs are displayed. This includes: Mill inn; Harleys; Downies; Pier Pressure; Yokos/Why Knot Bar & Lounge; Inn on the Pier; Yr Hen Orsaf/Wetherspools; Cambrian Hotel; The Libertine; Academy; and Angel.
SE-055	FRM2	Check that the "Yes" filter condition works correctly for the "Loud Music" filter.	Press the back button, then select "Filter Pubs". Select "Yes" for "Loud Music". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that play loud music.	Only pubs that play loud music are displayed. This includes: Bar46; Harleys; Downies; Pier Pressure; Yokos/Why Knot Bar & Lounge; The Libertine; Kanes; Academy; and Angel.
SE-056	FRM2	Check that the "No" filter condition works correctly for the	Press the back button, then select "Filter Pubs". Select "No" for "Loud	A screen with a list of pubs should be displayed. These pubs should only include those	Only pubs that do not play loud music are displayed. This includes: Mill inn; Scholars; Inn on the

		"Loud Music" filter.	Music". Press the back button, then select "View Pubs/Create Pub Crawl".	that do not play loud music.	Pier; Yr Hen Orsaf/Wetherspools; White Horse; and Cambrian Hotel.
SE-057	FRM2	Check that the "Yes" filter condition works correctly for the "Club" filter.	Press the back button, then select "Filter Pubs". Select "Yes" for "Club". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that are clubs.	Only pubs that are clubs are displayed. This includes: Pier Pressure; and Yokos/Why Knot Bar & Lounge.
SE-058	FRM2	Check that the "No" filter condition works correctly for the "Club" filter.	Press the back button, then select "Filter Pubs". Select "No" for "Club". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that are not clubs.	Only pubs that are not clubs are displayed. This includes: Bar46; Mill inn; Harleys; Downies; Scholars; Inn on the Pier; Yr Hen Orsaf/Wetherspools; White Horse; Cambrian Hotel; The Libertine; Kanes; Academy; and Angel.
SE-059	FRM2	Check that the "Yes" filter condition works correctly for the "Has TV" filter.	Press the back button, then select "Filter Pubs". Select "Yes" for "Has TV". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that have a TV.	Only pubs that have a TV are displayed. This includes: Bar46; Scholars; Pier Pressure; Yokos/Why Knot Bar & Lounge; Inn on the Pier; Yr Hen Orsaf/Wetherspools; White Horse; Kanes; and Angel.
SE-060	FRM2	Check that the "No" filter condition works correctly for the "Has TV" filter.	Press the back button, then select "Filter Pubs". Select "No" for "Has TV". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that do not have a TV.	Only pubs that do not have a TV are displayed. This includes: Mill inn; Harleys; Downies; Cambrian Hotel; The Libertine; and Academy.
SE-061	FRM2	Check that switching from "Yes" to "No" with a filter inverts the selection of pubs.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the back button. Then select	A screen with a list of pubs should be displayed. These pubs should only include those that do not allow dogs.	Only pubs that do not allow dogs are displayed. This includes: Mill inn; Harleys; Downies; Pier Pressure; Yokos/Why Knot Bar & Lounge; Inn on the Pier; Yr Hen Orsaf/Wetherspools;

			Filter Pubs again. Select "Yes", and then select "No", for the "Allows Dogs" filter. Press the back button, then select "View Pubs/Create Pub Crawl".		Cambrian Hotel; The Libertine; Academy; and Angel.
SE-062	FRM2	Check that switching from "No" to "Yes" with a filter inverts the selection of pubs.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the back button. Then select Filter Pubs again. Select "No", and then select "Yes", for the "Allows Dogs" filter. Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that allow dogs.	Only pubs that allow dogs are displayed. This includes: Bar46; Scholars; White Horse; and Kanes.
SE-063	FRM2	Check that filter conditions of "Allows Dogs" and "Loud Music" can function with others simultaneously.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the back button. Then select Filter Pubs again. Select "Yes" for "Allows Dogs" and then select "No" for "Loud Music". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that allow dogs and do not play loud music.	Only pubs that simultaneously allow dogs and do not play loud music are displayed. This includes: Scholars; and White Horse.
SE-064	FRM2	Check that filter conditions of "Club" and "Has TV" can function with	Press the back button, then select "Filter Pubs". Set everything to	A screen with a list of pubs should be displayed. These pubs should only include those	Only pubs that are simultaneously not clubs and do not have a TV are displayed. This includes: Mill

		others simultaneously.	"No preference", then press the back button. Then select Filter Pubs again. Select "No" for "Club" and then select "No" for "Has TV". Press the back button, then select "View Pubs/Create Pub Crawl".	that do not have a TV and are not a club.	inn; Harleys; Downies; Cambrian Hotel; The Libertine; and Academy.
SE-065	FRM2	Check that filter conditions of "Serves Food" and "Real Ale" can function with others simultaneously.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the back button. Then select Filter Pubs again. Select "Yes" for "Serves Food" and then select "Yes" for "Real Ale". Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that serve both food and real ale.	Only pubs that simultaneously can serve food and can serve real ale are displayed. This includes: Scholars; and Yr Hen Orsaf/Wetherspools.
SE-066	FRM2	Check that the user is informed by the system when no pubs match their filtering criteria.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the back button. Then select Filter Pubs again. Select "No" for all filters.	No pubs will be available to be viewed in the pub list.	No pubs will be displayed; instead, a message will be displayed, explaining why this is.
SE-067	FRM2	Check that the selected filters are displayed after navigating in and out of the filter screen.	Press the back button, then select "Filter Pubs". Set everything to "No preference", then press the	The filter screen should be displayed, with all filter sliders in default position except for that of "Club".	The "Club" filter will be set to "Yes", and the remaining filters will be set to "No preference"

			back button. Then select Filter Pubs again. Select "No" for all filters. Select "Yes" for "Club". Press the back button, then select "View Pubs/Create Pub Crawl". Press the back button, then select Filter Pubs again.		
SE-068	FRM2	Check that filters are retained after navigating in and out of the filter screen.	Press the back button, then select "View Pubs/Create Pub Crawl".	A screen with a list of pubs should be displayed. These pubs should only include those that are clubs.	Only pubs that are clubs are displayed. This includes: Pier Pressure; and Yokos/Why Knot Bar & Lounge.
SE-069	FRM3	Check that selecting a pub from a list takes the user to a view of the pub's information.	Select "Pier Pressure".	A screen with the pub's information will display.	The information for "Pier Pressure" is displayed.
SE-070	FRM3	Check that the user can return to the list of pubs after viewing a pub's information.	Press the back button.	A screen with a list of pubs should be displayed. These pubs should only include those that are clubs.	Only pubs that are clubs are displayed. This includes: Pier Pressure; and Yokos/Why Knot Bar & Lounge.
SE-071	FRM3	Check that the displayed information is updated when opening and closing multiple pubs.	Select "Yokos/Why Knot Bar & Lounge".	A screen with the second pub's information will display.	The information for "Yokos/Why Knot Bar & Lounge" is displayed.
SE-072	FRM3	Check that, once a pub is selected from a pub list, its location is displayed on a local map.	Scroll through the screen to locate the map.	The pub's location should be presented on a map on the pub's information screen.	The location of "Yokos/Why Knot Bar & Lounge" will be displayed on a map.
SE-073	FRM3	Check that, once a pub is selected from a pub list, a photograph of it is displayed.	Scroll through the screen to locate the pub's photograph.	The pub's photograph should be present on the pub's information screen.	The photograph for "Yokos/Why Knot Bar & Lounge" is displayed.
SE-074	FRM3	Check that all photos for a pub with multiple photos are displayed when	Scroll through the screen to locate additional photographs of the pub.	It should be possible to view at least two different photos on the current screen.	Multiple photographs for "Yokos/Why Knot Bar & Lounge" should be available to view.

		a pub is selected from a pub list.			
SE-075	FRM3	Check that, once a pub is selected from a pub list, its review is displayed.	Scroll through the screen to locate the pub's review.	The pub's review should be present on the current screen.	The review of "Yokos/Why Knot Bar & Lounge" is displayed.
SE-076	FRM3	Check that, once a pub is selected from a pub list, information about its attributes (for example, whether it allows dogs) are displayed.	Scroll through the screen to locate the pub's attributes.	The pub's attributes and their values should be present on the current screen.	The attributes for "Yokos/Why Knot Bar & Lounge" are displayed (see Appendix C).
SE-077	FRM4	Check that the random pub crawl functionality can use a non-filtered list as input.	Press the home button. Select "Filter Pubs", set them all to "No Preference", and then apply the changes. Press the back button, and then select "View Pub Tour". Finally, select "Create random pub tour with currently selector filters".	The user is taken to a new screen with a randomly-generated crawl featuring all pubs from the pub list.	The crawl consists of all Aberystwyth-based pubs (see Appendix A).
SE-078	FRM4	Check that the random pub crawl functionality can use a filtered list as input.	Press the home button. Select "Filter Pubs", set "Club" to "Yes", and then apply the changes. Press the back button, and then select "View Pub Tour". Finally, select "Create random pub tour with currently selector filters".	The user is taken to a new screen with a randomly-generated crawl containing all pubs from the filtered selection.	Only pubs that are clubs are displayed in the crawl. This includes: Pier Pressure; and Yokos/Why Knot Bar & Lounge.
SE-079	FRM4	Check that the user cannot specify to use more pubs than are listed when generating a random crawl.	Select to generate a random crawl, and enter 250 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-080	FRM4	Check that the user can specify	Select to generate a	The crawl should generate normally	A random crawl is generated and started.

		to use the maximum number of pubs in the available list when generating a random crawl.	random crawl, and enter the number of pubs that belong to the current pub list (and serve food) at the pub quantity prompt.	and display the details of the first pub in the crawl.	
SE-081	FRM4	Check that the user can specify to use a reasonable number of pubs when generating a random crawl.	Select to generate a random crawl, and enter 3 at the pub quantity prompt.	The crawl should generate normally and display the details of the first pub in the crawl.	A random crawl is generated and started.
SE-082	FRM4	Check that the user can specify to use just one pub when generating a random crawl.	Select to generate a random crawl, and enter 1 at the pub quantity prompt.	The crawl should generate normally and display the details of the first pub in the crawl.	A random crawl is generated and started.
SE-083	FRM4	Check that the user cannot specify to use 0 pubs when generating a random crawl.	Select to generate a random crawl, and enter 0 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-084	FRM4	Check that the user cannot specify to use a negative number of pubs when generating a random crawl.	Select to generate a random crawl, and enter -1 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-085	FRM4	Check that the user cannot specify to use a decimal number of pubs when generating a random crawl.	Select to generate a random crawl, and enter 2.5 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-086	FRM4	Check that the user cannot use an overflowed integer value to specify the number of pubs when generating a random crawl.	Select to generate a random crawl, and enter 4294967299 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-087	FRM4	Check that the user cannot use an "underflowed" integer value to specify the number of pubs	Select to generate a random crawl, and enter -4294967289 at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.

		when generating a random crawl.			
SE-088	FRM4	Check that the user cannot use textual values when specifying the number of pubs when generating a random crawl.	Select to generate a random crawl, and enter "Hello World!" at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-089	FRM4	Check that the user cannot use special characters when specifying the number of pubs when generating a random pub crawl.	Select to generate a random crawl, and enter "!:@#?" at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-090	FRM4	Check that the user cannot use a mathematical sum as input when specifying the number of pubs when generating a random pub crawl.	Select to generate a random crawl, and enter "2+2" at the pub quantity prompt.	An error should be displayed to the user.	System displays "invalid quantity" error message. No tour is generated.
SE-091	FRM4	Check that the generated list is randomised.	Select to generate a random crawl. Note the order of the pubs by cycling through the tick boxes, reset the software, and repeat the test using the same pub list up to two times.	Three crawls will be generated.	The order of the pubs is not consistent between the three crawls.
SE-092	FRM4	Check that confirming a visit to a pub displays the next pub in the list.	Select to generate a random crawl. Tick the tick box to confirm attendance at the first pub.	The details about the second pub in the crawl should be displayed.	The second pub's details are displayed instead of the first pub's.
SE-093	FRM4	Check that a congratulatory screen is displayed after ticking attendance at the last pub in a crawl.	Select to generate a random crawl. Tick each tick box until all pubs have been visited.	A congratulatory screen should be displayed.	A congratulatory screen is displayed.
SE-094	FRM4	Check that the user is taken to the complete	Select to generate a random crawl.	The user should be redirected to a screen containing	The screen now displays the complete list of pubs from the

		original list of pubs after the congratulatory screen, having generated a random crawl.	Tick each tick box until all pubs have been visited. Close out of the congratulatory screen using the appropriate button.	an unfiltered list of all the pubs in the pub list used to generate the crawl.	pub list used to generate the pub crawl. No filters are active.
SE-095	FRM5	Check that the organised pub crawl functionality can use a filtered list as input.	Open a pub list. Apply the "Yes" filter to condition to "Allows Dogs". Select to generate an organised crawl.	The user is taken to a new screen to construct an organised pub crawl.	The list of pubs that can be selected for the organised crawl consists only of pubs that allow dogs.
SE-096	FRM5	Check that the organised pub crawl functionality can use a non-filtered list as input.	Open a pub list. Select to generate an organised crawl without applying any filters.	The user is taken to a new screen to construct an organised pub crawl.	The list of pubs that can be selected for the organised crawl consists of all pubs within the selected pub list.
SE-097	FRM5	Check that the list obeys the chronology specified by the user.	Generate an organised crawl using a list with many pubs. Set each of the pubs to a time 10 minutes forward from the previous, starting from 6PM. Start the crawl.	The crawl should start with the pub associated with 6PM, and should cycle through each pub in order (observable by 10 minute increases).	The order of the crawl matches the order specified by the user.
SE-098	FRM5	Check that confirming a visit to a pub displays the next pub in the list.	Generate an organised crawl using a non-filtered list containing multiple pubs. Tick the tick box to confirm attendance at the first pub.	The details about the second pub in the crawl should be displayed.	The second pub's details are displayed instead of the first pub's.
SE-099	FRM5	Check that a congratulatory screen is displayed after ticking attendance at the last pub in a crawl.	Generate an organised crawl. Tick the tick box to confirm attendance at every pub.	A congratulatory screen should display.	A congratulatory screen is displayed.
SE-100	FRM5	Check that the user is taken to the complete original list of pubs after their	Generate an organised crawl. Tick the tick box to confirm	The user should be redirected to a screen containing an unfiltered list of all the pubs in the	The screen now displays the complete list of pubs from the pub list used to

		congratulatory screen, having generated an organised crawl.	attendance at every pub. Exit out of the congratulatory screen.	pub list used to generate the crawl.	generate the pub crawl. No filters are active.
SE-101	FRM5	Check that the user cannot organise to visit a pub at an earlier time than a previous pub.	Start generating an organised crawl. Set the first pub to be visited at 8PM. Set the second pub to be visited at 7PM.	An error should be displayed to the user.	System displays "invalid time" error message.
SE-102	FRM5	Check that the user cannot organise to visit a pub at the same time as another pub.	Start generating an organised crawl. Set the first pub to be visited at 8PM. Set the second pub to be visited at 8PM.	An error should be displayed to the user.	System displays "invalid time" error message.
SE-103	FRM6	Check that a pub list for Aberystwyth is available to select.	Start the mobile software.	The mobile software should contain a pub list for Aberystwyth.	A pub list for Aberystwyth is available.
SE-104	FRM6	Check that there are at least 15 pubs in the Aberystwyth pub list.	Start the mobile software. Select the Aberystwyth pub list.	The mobile software should display 15 or more Aberystwyth pubs.	There are 15 or more Aberystwyth-based pubs being displayed.

APPENDIX A – ALL ABERYSTWYTH PUBS

Pier Pressure
Academy
Mill inn
Angel
Scholars
Bar46
Yokos/Why Not Bar & Lounge
Yr Hen Orsaf/Wetherspoons
The Libertine
Cambrian Hotel
Kanes
White Horse
Inn on the Pier
Harleys
Downies

APPENDIX B – ALL ABERYSTWYTH PUBS ALPHABTICALLY

Academy
Angel
Bar46
Cambrian Hotel
Downies
Harleys
Inn on the Pier
Kanes
Mill inn
Pier Pressure
Scholars
The Libertine
White Horse
Yokos/Why Not Bar & Lounge
Yr Hen Orsaf/Wetherspoons

APPENDIX C – YOKOS ATTRIBUTES

Serves Food	No
Has Real Ale	No
Allows Dogs	No
Loud Music	Yes
Club	Yes
Has TV	Yes

REFERENCES

- [1] Pub Tour Requirements Specification. C. J. Price. SE.QA.CSRS. 1.1 Release
- [2] User Interface Specification. B. Weatherly, B. James. SE.GP09.UISPEC. 1.3 Release

DOCUMENT HISTORY

<i>Version</i>	<i>CCF No.</i>	<i>Date</i>	<i>Changes made to document</i>	<i>Changed by</i>
0.1	N/A	27/02/19	N/A – Original draft	ffz
0.2	N/A	05/03/19	Updated Test Procedures table in response to review feedback	ffz
1.0	N/A	05/03/19	Finalized release document	rur7
1.1	N/A	05/03/19	Fixed an error in the contents page before submission	ffz
1.2	43	08/05/19	Remade the document to fix some formatting issues, and updated the test table as well.	ffz