Software Engineering Group 11
SE_11_TS_01
Android Test Specification

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1. Introduction

1.1. Purpose of Document

The purpose of this document is to give a comprehensive guide to the tests we will carry out on our android application once we reach the testing phase.

1.2. Scope

This document aims to be a brief but detailed document listing our test specifications for the android application.

1.3. Objectives

This document covers:

- Recording and Species Module
- Funcionality
- UI
- Databse

1.4. Documents Included

This Test Specification has been derived from the following documents

- SE.QA.RS – Requirement Specification[1]
- SE_11_PP – Project Plan[2]

2. Android Test Specification

2.1 Recordings and Species Module testing

Test ref	Req. being tested	Test content	Input	Output	Pass criteria
SE-F-001	FR2	Test a valid phone number for a recorder.	01234564854	Phone number is accepted when sent to the database.	No errors or warnings are produced.
SE-F-002	FR2	Test a phone number that contains characters.	01a23d65845	Phone number is rejected when the user attempts to submit the data.	An error is displayed to the user alerting them that the phone number is invalid due to characters.
SE-F-003	FR2	Test a phone number that contains special characters.	215!254@*90	Phone number is rejected when the user attempts to submit the data.	An error is displayed to the user alerting them that the phone number is invalid due to special characters.
SE-F-004	FR2	Test a valid date.	06/11/2014	The date is accepted and sent to the database.	No warnings or errors are produced.
SE-F-005	FR2	Test a historic date.	06/11/1900	The date is rejected when the user attempts to submit the data.	An error is displayed to the user alerting them that the date is too far in the past.
SE-F-006	FR2	Test a date in the future.	A date further in the future	The date is rejected	An error is displayed to

			of the current date	when the user attempts to submit the data.	the user alerting them that the date cannot be in the future.
SE-F-007	FR3	Test a valid species from the list.	Search for a valid species that exists within the database.	The species is accepted when the user submits the data.	No warnings or errors are produced.
SE-F-008	FR3	Search for a species that does not exist.	Search for '$FS465bth'	No results will be returned.	A message will alert the user that no matching results were obtained. A prompt to add a new species will appear.
SE-F-009	FR3	Test a valid unique species can be added.	Attempt to add a new valid species.	The new species will be added to the database when submitted.	No warning or error message will be displayed to the user as the data is valid.
SE-F-010	FR3	Test that a repeat of a species cannot be entered.	Attempt to add a new valid species that already exists in the database.	The new species will not be added to the database.	An error will be displayed to the user alerting them to the fact a duplicate of this species already exists.
SE-F-011	FR4	Test a valid abundance character.	'A'	The character is accepted as valid on submission and sent to the database.	No error message or warning is produced for the valid character.
SE-F-012	FR4	Test an invalid abundance character.	'Z'	The character will be rejected when the user attempts to submit data.	An error is displayed to the user alerting them that the abundance character is invalid.

SE-F-013	FR4	Test multiple characters in the abundance field.	'FA'	The character will be rejected when the user attempts to submit the data.	An error is displayed to the user alerting them that only one character can be entered into the abundance field.
SE-F-014	FR4	Test no entry in the free text comment area.	Enter no data to the free text area.	On submission the data will be sent to the database.	No warning or error messages will be displayed for the valid entry.
SE-F-015	FR4	Test a valid entry in the free text comment area.	Enter more than 0 and less than 256 characters.	On submission the data will be sent to the database.	No warning or error message will be displayed for the valid entry.
SE-F-016	FR4	Test a comment that is more than the maximum number of valid characters in the free text comment field.	Enter more than 256 characters in the free text comment field.	The data will be rejected when the user attempts to submit the data.	An error message will alert the user to the fact that the free comment box is only able to take a comment of 256 characters or less.
SE-F-017	FR4	Testing the camera is loaded when the scene camera icon is pressed.	Press the scene camera icon.	The screen is switched to camera output.	The user can take a picture with the camera which is then saved.
SE-F-018	FR4	Testing the camera is loaded when the plant camera icon is pressed.	Press the plant camera icon.	The screen is switched to camera output.	The user can take a picture with the camera which is then saved.

SE-F-019	FR5	Testing a recording can be deleted.	Select a recording and press delete.	The recording will no longer be displayed in the list.	The database will no longer contain the recording that was deleted.
SE-F-020	FR5	Test a whole species can be deleted.	Select a pre-existing species and press delete.	The recording will no longer be displayed in the list.	The database will no longer contain the recording that was deleted.
SE-F-021	FR5	Change the abundance of a species.	Select a pre-existing species and change the abundance to a valid abundance.	The species will now be updated with the new abundance.	The database will be updated to match the new information given on submission.
SE-F-022	FR5	Change the abundance of a species to a non-valid abundance.	Select a pre-existing species and change the abundance to a non-valid abundance.	When the user submits the change the change is rejected.	An error message is produced alerting the user that the input for abundance is not valid.
SE-F-023	FR5	Change the typical location for a species.	Select a pre-existing species and change the pre-existing location to a new valid location.	The species record will be updated with the new value for typical location.	No errors or warning messages are produced as the data is valid.
SE-F-024	FR5	Change the image of a species (plant).	Select a pre-existing species and change the plant image to a valid image.	The species plant image will be updated with the new image.	The database will be updated to match the new information given on submission.

SE-F-025	FR5	Change the image of a species (scene).	Select a pre-existing species and change the scene input to a valid image.	The species scene image will be updated with the new image.	The database will be updated to match the new information given on submission.

2.2 Functionality

Test ref	Req. being tested	Test content	Input	Output	Pass criteria
SE-F-026	FR3	Search for a certain plant in the database	Enter a plant name that is in the database	A drop down list containing plant searched for	If plant appears in drop down list
SE-F-027	FR3	Search for a plant alphabetically	Enter the first letter or couple of letters	A drop down list populated with plants that match letter(s) going from common to rare	If first letter(s) match those of first letter(s) of plants in drop down list
SE-F-028	FR3	Search for a plant not in the database	Enter a plant name that is not in the database	A drop down list with option to add new plant	If add new plant option appears in drop down
SE-F-029	FR5	Display entries according to date	Test database of entries. Two with same day & month, two with same month & year, two with same day & year and two completely same dates	Display entries going from closest date then progressing back to oldest recorded record	If entries are grouped by year and month
SE-F-030	PR1	GPS is turned off when app is closed/goes inactive (If GPS is only to be active when app is)	App is closed/goes inactive	Phone GPS is deactivated	If phone settings show GPS is off after app use
SE-F-031	FR4	Search for a certain reserve in the database	Enter a reserve name that is in the database	A drop down list containing reserve searched for	If reserve appears in drop down list

SE-F-032	FR4	Search for a reserve alphabetically	Enter the first letter or couple of letters	A drop down list populated with reserves that match letter(s)	If first letter(s) match those of first letter(s) of reserves in drop down list
SE-F-033	FR4	Search for a reserve not in the database	Enter a reserve that is not in the database	A drop down list stating unable to locate reserve	If unable to find reserve appears for the user
SE-F-034	FR4	When a picture is taken that the GPS coordinates are recorded	Take a picture	GPS coordinates are entered into field to be sent	If record contains GPS coordinates
SE-F-035	FR2, FR8, FR9	Test logon id validation with one in user database	Enter e-mail of member on system	Proceed to password validation	Logon id is confirmed to be a user in database
SE-F-036	FR2, FR8, FR9	Test logon id validation with one not in user database	Enter e-mail of a non-member	Display 'unable to recognize logon/ password'	Logon id is confirmed as not in user database
SE-F-037	FR2, FR8, FR9	Test if correct password is entered	Enter correct password for logon id	Proceed to next screen	Password matches password linked to Logon id
SE-F-038	FR2, FR8, FR9	Test if an incorrect password is detected	Enter incorrect password for logon id	Display 'unable to recognize logon/ password'	If password is confirmed as not matching password linked to Logon id

SE-F-039	FR2, FR8, FR9	Test access level which is valid	Member's access level	Proceed to next screen	If access level is recognized as being greater than or equal to required level
SE-F-040	FR2, FR8, FR9	Test access level which is not valid	Member's access level	Display 'Access denied'	If access level is recognized as being less than required level
SE-F-041	FR5	Test if any entries are on your phone	Request list of previous entries with no entries	Display 'Not previous entries currently stored'	If displays message for user as no entries to display
SE-F-042	PR1	Test if user notified they can upload with WiFi connection made (only if that is their upload option)	Phone connects to WiFi while app is active	Upload icon lights up	If Icon changes and setting is for WiFi
SE-F-043	PR1	Test if user notified they can upload with signal at a good strength to ensure transition (only if that is their upload option)	Phone signal is at or above a certain strength while app is active	Upload icon lights up	If Icon changes and setting is for using phone's signal

SE-F-044	PR1	Test if user notified they can upload with WiFi when no connection is made (only for WiFi upload option)	Phone signal is at or above a certain strength while app is active	Upload icon does not light up	If Icon does not change and setting is for WiFi

2.3 UI

Test Ref	Req. being tested	Test content	Input	Output	Pass criteria
SE-F-045	EIR1	Main Menu - The upload viewers change based on the record state	The record is in the local Database	Button should be red	Has to be red,
SE-F-044	EIR1	Main Menu - The upload viewers change based on the record state	The record is being uploaded	Button should change to orange	Needs to change to orange.
SE-F-045	EIR1	Main Menu - The upload viewers change based on the record state	The record has uploaded, stays for 5 minutes	The button changed to green, and disappears after 5 minutes	Needs to change and disappear in that time provided.
SE-F-046	EIR1	Record screen - Image select screen	Swipe right on the image select	Image swipe option correctly switches between image modes	The state is switched.
SE-F-047	EIR1	Record Screen - Reset button works correctly	The button is pressed	The data entry forms are cleared	They are cleared correctly
SE-F-048	EIR1, PR2	Main menu - Scaling to different screen sizes works correctly	Application is tested on larger screen	The buttons and icons scale correctly and the positions are relative to screen size	The buttons looks correctly scaled.

Test Ref	Req. being tested	Test content	Input	Output	Pass criteria
SE-F-049	EIR1, PR2	Main menu - Scaled to tablet size	Opened on tablet	All controls are scaled up for tablets and works correctly	Application must have all controls scale up appropriately
SE-F-050	EIR1, PR2	Record Screen - Scaled to tablet size	Opened on a tablet	The buttons and image size are scaled correctly	Needs to be scaled correctly without any errors with resolution or position
SE-F-051	EIR1	Main menu - Rotate to landscape	Rotated the device to landscape.	The elements rotate and resize to fit the screen more appropriately	Needs to resize and reposition elements correctly
SE-F-052	EIR1	Record Screen - Rotate to landscape	Rotated the device to landscape.	The elements of the screen rotate and resize to fit the screen, this includes the image selector.	Needs to resize correctly and the image has to resize
SE-F-053	EIR1	Main Menu - four navigation buttons must be in the correct location	Opened the application	The buttons are spaced evenly and are the same size	Have to be spaced evenly and are the same size
SE-F-054	EIR1	Main menu - Upload button checks	Opened the application	The upload buttons are spaced and positioned evenly	They're spaced evenly and are the same size

Test Ref	Req. being tested	Test content	Input	Output	Pass criteria
SE-F-055	EIR1	Main menu - Added recording to upload button	Added a recording to be displayed on the button display	The recording button is added to the end of the stack	Has to be added correctly to the display
SE-F-056	EIR1	Record Screen - GPS Screen disability	Turn off GPS	The GPS automatic entry should be disabled	Has to disable the controls once GPS is turned off

3. REFERENCES

[1] – SE.QA.RS – Requirement Specification – N.W.Hardy

[2] – SE_11_PP – Project Plan – Group 11

4. DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to document	Changed by
1.0	N/A	13/11/14	Document Created and Structured	Add20