CS221 Group Project Test Specification

Project Team

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1 Introduction

1.1 Purpose of this Document

This document describes the test specification and procedure for the Reserve Plant Species Recording project (RPSR). The document will give a guide on the main stages of testing. Team members are to read this document and confirm that the test specification is understood, and sets out sufficient testing requirements. This document will give a guide to what the expected outputs of each stage in the project are.

1.2 Scope

This test specification aims to provide information about what in the project needs to be tested for the RPSR. As well as the expected results from the tests.

1.3 Objectives

The objectives of this document are:

- To provide all the developers a document that can be looked up to make sure they understand what is needed
- To make sure that all the developers can expect the same goals
- To make sure that once a task has been completed it matches with the expected result
- To make sure that the project is kept to the requirements stated in the brief
- To make sure we know what we will need to check when we finish the project

2 TestPlan

2.1 Android User

Individual Module Testing will be left to the coder, and tests should be written before the coding is done.

Test Ref Req Being Tested Test Content Input Output Pass Criteria

Test Ref	Red Test	Test Content	Input	Output	Pass
SE-F-001	FR1	Startup of Software	Start up Android	Android App should onen.	Android app opens without error.
SE-F-002	FR2	Valid user-	Enter valid username/	App should confirm suc-	App confirms successful
		name/password allows		cessful login and pro-	login and proceeds to
		user to login		ceed to App.	the App.
SE-F-003	FR2	Invalid user-	Enter invalid user-	App should state that it	App states that the lo-
		name/password does	name/password combi-	was an invalid login and	gin details are invalid,
		not allow user to login	nation.	does not allow user to	stays on login page.
				login.	
SE-F-004	FR3	User allowed to add	Enter plant name to	States that plant details	Plant details success-
		a plant name to the	the database via an-	are successfully added	fully added to the
		database.	droid app.	to the database.	database.
SE-F-005	FR4	User allowed to add	Enter Species Details to	States that plant details	Plant details success-
		Species Details.	the database via an-	are successfully added	fully added to the
			droid app.	to the database.	database.
SE-F-006	FR4	User not allowed to en-	Enter invalid Species	App states that the de-	Does not enter to
		ter invalid Species De-	Details to the database	tails entered are invalid.	database. Returns to
		tails to the database.	via android app.		input page.
SE-F-007	FR4	User allowed to add a	Enter a plant picture	States that plant pic-	Plant picture success-
		picture of a plant to the	to the database via an-	ture is successfully	fully added to the
		database.	droid app.	added to the database.	database.
SE-F-008	FR4	User not allowed to add	Attempt to enter a	States that the file is	Does not enter to
		a non-image file when	non-image file to the	not an image file.	database. Returns to
		prompted for a picture	database.		input page.
		of a plant.			
SE-F-009	FR4	نہ	Attempt to enter an ab-	States that the file ex-	Does not enter to
		a picture of a plant to	surdly large image file	ceeds filesize limits.	database. Returns to
		the database if over a	to the database (e.g		input page.
		certain size (to be dis-	20MB).		
		cussed with group.)			

SE-F-010 FR4	FR4	User allowed to record	User allowed to record Record level of abun-	States that abundance	Level of abundance suc-
		the level of abundance	dance of plant within	of plant is successfully	cessfully added to the
		of the plant within the	the area. Enter a valid	added to the database.	database.
		area.	input.		
SE-F-011	FR4	User not allowed to en-	Attempt to enter an in-	States that the input is	Does not enter to
		ter an invalid input for	valid input for abun-	invalid.	database, returns to
		abundance of plant.	dance of plant.		input page.
SE-F-012	FR6	Application should	Attempt to use app	States that records suc-	Successfully sends
		know whether it is con-	whilst connected to the	cessfully sent to the	records to the database.
		nected to the internet,	internet.	database.	
		and that it is able to			
		send records to the			
		database. If not, the			
		data is stored in local			
		storage.			
SE-F-013	FR6	Application should	Attempt to use app	States that the app is	Stores the records on lo-
		know whether it is con-	whilst not connected to	not connected to the	cal storage.
		nected to the internet,	the internet.	internet and that the	
		and that it is able to		records were stored in	
		send records to the		local storage.	
		database. If not, the			
		data is stored in local			
		storage.			

2.2 Website User

Individual Module Testing will be left to the coder, and tests should be written before the coding is done.

Test Ref	Red Being Tested	Test Content	Input	Output	Pass Criteria
SE-F-014	FR2	Valid User-	Login with valid User-		
		name/Password allows	name/Password.		
		user to login.			
SE-F-015	FR2	Invalid User-	Login with invalid User-		
		name/Password does	name/Password.		
		not allow user to login.			
SE-F-016	FR3	User allowed to add	Enter valid plant name	States that plant details	Plant details success-
		a plant name to the	using the website.	are successfully added	fully added to the
		database.		to the database.	database.
SE-F-017	FR3	User not allowed to add	Enter invalid plant	States that the plant	Plant details not added
		an invalid plant name to	name using the website.	name is invalid.	to database, returns to
		the database.			input page.
SE-F-018	FR4	User allowed to add	Enter valid Species De-	States that plant details	Plant details success-
		Species Details.	tails using the website.	are successfully added	fully added to database.
				to the database.	
SE-F-019	FR4	User not allowed to add	Enter invalid Species	States that plant details	Plant details not added
		invalid Species Details.	Details using the web-	are invalid.	to database, returns to
			site.		input page.
SE-F-020	FR4	User allowed to add a	Enter a valid image file	States that plant image	Plant image successfully
		picture of a plant to the	to the database using	is successfully added to	added to the database.
		database.	the website.	the database.	
SE-F-021	FR4	User not allowed to add	Attempt to enter a non-	States that the file is	Image not added to
		a non-image file when	image file.	not a valid image file.	database, returns to in-
		prompted for picture of			put page.
		a plant.			
SE-F-022	FR4	User allowed to record	Enter level of abun-	States that plant abun-	Plant abundance suc-
		the level of abundance	dance of the plant using	dance is successfully	cessfully added to the
		of the plant within the	the website.	added to the database.	database.
		area.			

$oxed{ ext{SE-F-023} \mid ext{FR5}}$	FR5	User able to make	Attempt to change	States that change was	Change successfully
		changes to any record	Plant Name of a user	successfully made.	made to the database.
		that they have added	inputted plant.		
		to the database.			
SE-F-024	FR5	User able to make	Attempt to change	States that change was	Change successfully
		changes to any record	Species Details of a	successfully made.	made to the database.
		that they have added	user inputted plant.		
		to the database.			
SE-F-025	FR5	User able to make	Attempt to change	States that change was	Change successfully
		changes to any record	plant picture of a user	successfully made.	made to the database.
		that they have added	inputted plant.		
		to the database.			
SE-F-026	FR5	User able to make	Attempt to change	States that change was	Change successfully
		changes to any record	abundance details of a	successfully made.	made to the database.
		that they have added	user inputted plant.		
		to the database.			
SE-F-027 FR5	FR5	User able to remove any	Attempt to remove a	States that record was	Record successfully
		record that they have	user-added record from	successfully removed.	removed from the
		added to the database.	the database.		database.

2.3 Server

Individual Module Testing will be left to the coder, and tests should be written before the coding is done.

Test Ref	Req Being Tested	Test Content	Input	Output	Pass Criteria
SE-F-028	FR7	Server allows an addi-	Valid JSON-formatted	Returns status code 200	Status code 200 OK and
		tion of a valid record via	record via POST	OK and ID of the record	record present in the
		${ m a~POST~request})$			database
SE-F-028	FR7	Server does not allow an	Invalid JSON-	Returns status code 400	Status code 400 and
		addition of an invalid	formatted record		record not present in
		record via a POST re-	via POST		the database
		quest)			
SE-F-029	FR7	Server allows an addi-	A binary file via POST	Returns status code 200	Status code 200 OK and
		tion of a file resource via		OK and ID of the re-	file present on server
		a POST request		source	
SE-F-030	ı	Server allows client to	A POST request with	Returns status code	Status code 200 OK and
		get a specimen with a	the desired ID specified	200 OK and a JSON-	a valid JSON-formatted
		specified specimen ID		formatted specimen	specimen
		that does exist			
SE-F-030	1	Server does not allow	A POST request with	Returns status code 400	Status code 400, noth-
		the client to get a spec-	the desired ID specified		ing returned
		imen with a specified			
		specimen ID that does			
		not exist			
SE-F-031	ı	Server allows client to	A POST request with	Returns status code 200	Status code 200 OK and
		get a file resource with	the desired ID specified	OK and a file	the desired file
		a specified resource ID			
		that exists			
SE-F-031	ı	Server does not allow	A POST request with	Returns status code 400	Status code 400 no file
		the client to get a file re-	the desired ID specified		returned
		source with a specified			
		resource ID that does			
		not exist			

SE-F-032	- Server allows client to	Server allows client to A POST request with	Returns status code	status code Status code 200 OK and
	get a number of speci-	get a number of speci- the desired location	200 OK and a JSON-	an array of valid rele-
	mens, filtered by record name specified	name specified	formatted array of	vant records with same
	location name		relevant records found	or similar location name
SE-F-034	- Server allows client to	Server allows client to A POST request with	Returns status code 200	Status code 200 OK and
	remove a specified spec- the desired specimen ID	the desired specimen ID	OK	the specimen is removed
	imen with a specified	a specified to be deleted		from the database
	valid specimen ID			
SE-F-034	- Server does not allow	A POST request with	Returns status code 400	Status code 400 and
	client to remove a spec-	the desired specimen ID		the specimen is not
	ified specimen with a	to be deleted		removed from the
	specified specimen ID			database
	that is invalid			
SE-F-036	- Server allows client to	Server allows client to A post request with the	Returns status code 200	Status code 200 OK and
	edit a specified spec-	desired ID and a JSON-	OK	specimen is changed in
	imen with a specified	formatted specimen		the database
	valid ID			
SE-F-036	- Server does not allow	A post request with the	Returns status code 400	Status code 400 OK and
	client to edit a specified	client to edit a specified desired ID and a JSON-		specimen is not changed
	specimen with a speci-	formatted specimen		in the database
	fied invalid ID			

3 Test Result Reporting

subsection Report Details of test results are to be maintained in the group github, under TestReports. Module tests are to be maintained in the Module Tests folder, and System tests in the System Tests folder.

4 Refrences

4.1 Refrence

- Document standards SE.QA.03
- \bullet Test Procedure Standards done in accordance with SE.QA.06

5 Document History

Version	Edit	Date	Persons
0.1	Initial Version	November 10 2014	nid21
0.2	Review and moving inline with template	November 28 2014	nid21