

CS221 Group Project

Test Specification

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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.

1.2 Scope

This test specification aims to provide information about what in the project needs to be tested for the RPSR.

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 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	Req Test	Test Content	Input	Output	Pass
SE-F-001	FR1	Startup of Software	Start up Android	Android App should open.	Android app opens without error.
SE-F-002	FR2	Valid name/password allows user to login	Enter valid username/	App should confirm successful login and proceed to App.	App confirms successful login and proceeds to the App.
SE-F-003	FR2	Invalid name/password does not allow user to login	Enter invalid username/password combination.	App should state that it was an invalid login and does not allow user to login.	App states that the login details are invalid, stays on login page.
SE-F-004	FR3	User allowed to add a plant name to the database.	Enter plant name to the database via android app.	States that plant details are successfully added to the database.	Plant details successfully added to the database.
SE-F-005	FR4	User allowed to add Species Details.	Enter Species Details to the database via android app.	States that plant details are successfully added to the database.	Plant details successfully added to the database.
SE-F-006	FR4	User not allowed to enter invalid Species Details to the database.	Enter invalid Species Details to the database via android app.	App states that the details entered are invalid.	Does not enter to database. Returns to input page.
SE-F-007	FR4	User allowed to add a picture of a plant to the database.	Enter a plant picture to the database via android app.	States that plant picture is successfully added to the database.	Plant picture successfully added to the database.
SE-F-008	FR4	User not allowed to add a non-image file when prompted for a picture of a plant.	Attempt to enter a non-image file to the database.	States that the file is not an image file.	Does not enter to database. Returns to input page.
SE-F-009	FR4	User not allowed to add a picture of a plant to the database if over a certain size (to be discussed with group.)	Attempt to enter an absurdly large image file to the database (e.g 20MB).	States that the file exceeds filesize limits.	Does not enter to database. Returns to input page.

SE-F-010	FR4	User allowed to record the level of abundance of the plant within the area.	Record level of abundance of plant within the area. Enter a valid input.	States that abundance of plant is successfully added to the database.	Level of abundance successfully added to the database.
SE-F-011	FR4	User not allowed to enter an invalid input for abundance of plant.	Attempt to enter an invalid input for abundance of plant.	States that the input is invalid.	Does not enter to database, returns to input page.
SE-F-012	FR6	Application should know whether it is connected to the internet, and that it is able to send records to the database. If not, the data is stored in local storage.	Attempt to use app whilst connected to the internet.	States that records successfully sent to the database.	Successfully sends records to the database.
SE-F-013	FR6	Application should know whether it is connected to the internet, and that it is able to send records to the database. If not, the data is stored in local storage.	Attempt to use app whilst not connected to the internet.	States that the app is not connected to the internet and that the records were stored in local storage.	Stores the records on 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	Req Being Tested	Test Content	Input	Output	Pass Criteria
SE-F-014	FR2	Valid name/Password allows user to login.	Login with valid User-name/Password.		
SE-F-015	FR2	Invalid name/Password does not allow user to login.	Login with invalid User-name/Password.		
SE-F-016	FR3	User allowed to add a plant name to the database.	Enter valid plant name using the website.	States that plant details are successfully added to the database.	Plant details successfully added to the database.
SE-F-017	FR3	User not allowed to add an invalid plant name to the database.	Enter invalid plant name using the website.	States that the plant name is invalid.	Plant details not added to database, returns to input page.
SE-F-018	FR4	User allowed to add Species Details.	Enter valid Species Details using the website.	States that plant details are successfully added to the database.	Plant details successfully added to database.
SE-F-019	FR4	User not allowed to add invalid Species Details.	Enter invalid Species Details using the website.	States that plant details are invalid.	Plant details not added to database, returns to input page.
SE-F-020	FR4	User allowed to add a picture of a plant to the database.	Enter a valid image file to the database using the website.	States that plant image is successfully added to the database.	Plant image successfully added to the database.
SE-F-021	FR4	User not allowed to add a non-image file when prompted for picture of a plant.	Attempt to enter a non-image file.	States that the file is not a valid image file.	Image not added to database, returns to input page.
SE-F-022	FR4	User allowed to record the level of abundance of the plant within the area.	Enter level of abundance of the plant using the website.	States that plant abundance is successfully added to the database.	Plant abundance successfully added to the database.

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

2.3 Admin

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 a user to login to the application through the android app providing they use a valid username/password.	See SE-F-002	See SE-F-002	See SE-F-002
SE-F-029	FR7	Server allows a user to login to the application through the website providing they use a valid username/password.	See SE-F-014	See SE-F-014	See SE-F-014
SE-F-030	FR7	Server does not allow a user who attempts to login using the android app without a valid username/password.	See SE-F-003	See SE-F-003	See SE-F-003
SE-F-031	FR7	Server does not allow a user who attempts to login using the website without a valid username/password.	See SE-F-015	See SE-F-015	See SE-F-015
SE-F-032	FR9	When user wants to view, edit, or delete records they have entered, the server calls them from the database.	See SE-F-026, See SE-F-027	See SE-F-026, See SE-F-027	See SE-F-026, See SE-F-027

SE-F-034	FR9	Server must be able to send and receive data from the phone of records being entered	See SE-F-004 See SE-F-005 See SE-F-007 See SE-F-010	See SE-F-004 See SE-F-005 See SE-F-007 See SE-F-010
SE-F-036	FR5	The website admin should be able to remove any record entered into the database by any user	Admin attempts to re-move a record entered by a user.	Record changed in database.
SE-F-037	FR8	The database administrator will be able to log into the database and manage/maintain it, if they provide correct login details.	Attempt to login with valid details.	Admin now able to manage/maintain database.
SE-F-038	FR8	The database will not allow someone to login without providing valid login details.	Attempt to login with invalid details.	Admin not logged in.

3 Test Result Reporting

subsectionReport Details of test results are to be maintained in the group github, under TestReports. Module tests are to be maintained in the ModuleTests folder, and System tests in the SystemTests folder.

4 References

4.1 Reference

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

5 Document History

Version	Edit	Date	Persons
0.1	Initial Version	January 1 1970	anon00