

# Group Project Reserve Plant Species

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Test Specification

Group 10

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## 1 Introduction

In this document we discuss the tests that we are going to implement so that we can be sure that we are going to catch as many errors as we can during the development process.

### 1.1 Scope

The scope of this document is to show what tests we will be employing for different parts of the project and how each part will be tested differently to others.

### 1.2 Objectives

Our main objectives with this document are as follows:

- 1.1.1 Java Tests
- 1.1.2 Web Tests

## 2 Java Tests

Test ID	Test Requirement	Test Content	Input	Output	Pass Criteria
<b>JT1</b>	FR1	Check that the software starts first time without errors on an Android device.	Application will be opened on test device.	Modal window prompting for contact details.	The application should have launched without crashing.
<b>JT2</b>	FR1	Check that the software starts second time with intended behaviour on an Android device.	Application will be opened on test device after previously having its user details set.	Prompt user to start a new recording.	The user should be able to start a new recording from app start without entering their details a second time.
<b>JT3</b>	FR1	Check that the software allows to record at a different site once a recording has ended.	A recording will be started, test items entered, then ended. This will be repeated two more times without closing the app.	App should end a recording then prompt user for a new one.	App should have taken and stored three separate recordings.
<b>JT4</b>	FR1 / FR2	Check that the user will be prompted for contact details at first boot up.	Application will be opened for the first time and a new recording will be started.	Modal window prompting for contact details.	The user should be prompted to fill in contact details.
<b>JT5</b>	FR1 / FR2	Check that reserve updates made on RPSRview are accessible to RPSRrec.	Add a new reserve on RPSRview, then run RPSRrec making sure network connection is available.	Message telling the user that the reserves have been updated.	The newly added reserve should be accessible from RPSRrec.
<b>JT6</b>	FR1 / FR2	Check that reserves are not downloaded when no updates are available.	Run RPSRrec making sure network connection is available and no new reserve has been added.	RPSRrec should run without noticing the user of any changes.	RPSRrec uses the reserve list downloaded in previous instances.
<b>JT7</b>	FR1 / FR2	Check that when network connection is not available, RPSRrec does not try to download reserve updates.	Run RPSRrec making sure network connection is not available.	RPSRrec should run without noticing the user of any changes.	RPSRrec uses the reserve list downloaded in previous instances.
<b>JT8</b>	FR2	Check that no numbers are allowed in the	Enter "1name" into the name field on the user details	Message telling the user that the name	The user details are not recorded and a new user details

		name of the user details.	modal window. The phone and email field should contain sensible data.	is not in a proper format.	modal window opens allowing the data to be re-entered.
<b>JT9</b>	FR2	Check that only numbers are allowed to be entered as a phone number.	Enter “.999” into the phone number field on the user details modal window. The name and email field should contain sensible data.	Message telling the user that the phone number is not in a proper format.	The user details are not recorded and a new user details modal window opens allowing the data to be re-entered.
<b>JT10</b>	FR2	Check that the user email is only allowed if it has a sensible format.	Enter “user.co.uk” into the email field on the user details modal window. The name and phone field should contain sensible data.	Message telling the user that the email is not in a proper format.	The user details are not recorded and a new user details modal window opens allowing the data to be re-entered.
<b>JT11</b>	FR3	Check that the user is able to select a species from the provided list.	Enter “s” into the species name field on the sightings entry modal window. The abundance should be selected, all other fields should be empty.	Drop down menu showing species names that can be selected by the user.	When one of the species name is clicked on it should populate the species name field.
<b>JT12</b>	FR3	Check that the user is able to add sightings of species not present in the provided list.	Enter “custom species” into the species name field on the sightings entry modal window. The abundance should be selected, all other fields should be empty.	Drop down menu showing species names that can be selected by the user briefly appears while the user is typing until no species can be found with that same name.	As no species was selected the typed in name “custom species” should stay in the species name field.
<b>JT13</b>	FR4	Check that the GPS coordinates are obtained correctly from the Android OS.	Record a new species and touch the "Obtain GPS coordinates" button.	GPS coordinates are shown on the details of the newly recorded species.	GPS coordinates are the same as GPS coordinates recorded in parallel to this test.

<b>JT14</b>	FR4	Check that the radio buttons for the abundance store the correct data.	Record a new species and select a radio button "DAFOR".	The selected radio button gets selected (filled in).	The selected abundance is stored correctly in the species record (shown in the summary view).
<b>JT15</b>	FR4	Check that the user is able to add a free text comment.	Record a new species and add a little text comment in the comment text field.	The written text is shown in the comment text field.	The written text is stored correctly in the species record (shown in the summary view).
<b>JT16</b>	FR4	Check that the user is able to add a photo from the phones gallery for the general scene.	Record a new species, touch the "Add photo" button, select "From gallery" in the modal window that appears and select a photo from the phones gallery.	A thumbnail of the selected photo is shown next to the "Add photo" button.	A copy of the photo is stored correctly in the species record (shown in the summary view).
<b>JT17</b>	FR4	Check that the user is able to shoot a new photo using the phones camera for the general scene.	Record a new species, touch the "Add photo" button, select "Shoot photo" in the modal window that appears and shoot a photo with the phones camera app.	A thumbnail of the new photo is shown in the general scene section.	A copy of the new photo is stored correctly in the species record (shown in the summary view).
<b>JT18</b>	FR4	Check that the user is able to add a photo from the phones gallery for the species.	Record a new species, touch the "Add photo" button, select "From gallery" in the modal window that appears and select a photo from the phones gallery.	A thumbnail of the selected photo is shown next to the "Add photo" button.	A copy of the photo is stored correctly in the species record (shown in the summary view).
<b>JT19</b>	FR4	Check that the user is able to shoot a new photo using the phones camera for the species.	Record a new species, touch the "Add photo" button, select "Shoot photo" in the modal window that appears and shoot a photo with the phones camera app.	A thumbnail of the new photo is shown in the species section.	A copy of the new photo is stored correctly in the species record (shown in the summary view).
<b>JT20</b>	FR5	Check that the user is able to delete one	When viewing the list of species in an	Species disappears	Species and all its details are deleted

		species from a recording.	unsent recording select one species to delete.	from the list of species.	from the recording.
<b>JT21</b>	FR5	Check that the user is able to delete a whole recording.	When viewing the list of unsent recordings select one recording to delete.	Recording disappears from the list of recordings.	Recording and all the species in it are deleted.
<b>JT22</b>	FR5	Check that the user is able to update an unsubmitted recording.	'Edit' button is clicked on the menu bar of the main page.	User taken to a page where they are able to amend the recording.	Recording is updated correctly and the user is taken back to the main page.
<b>JT23</b>	FR6	Check that recording is sent with network connection available.	The recording is sent making sure network connection is available.	Message telling the user that the recording was sent.	The sightings recorded containing the visits data should now be accessible from RPSRview.
<b>JT24</b>	FR6	Check that the recording is not sent without network connection.	The recording is sent making sure network connection is not available.	Message telling the user that the recording could not be sent yet because of missing network.	The recording should be saved on the Android device ready to be sent once network connection is available.

**3 Web Tests**

Test ID	Test Requirement	Test Content	Input	Output	Pass Criteria
<b>WT1</b>	FR7	Check that the server can receive and store recordings sent from the android app.	Send a recording to the server via a HTTP POST.	The database should contain the new recording with the correct data.	The data is saved correctly.
<b>WT2</b>	FR7	Check for corrupt/incomplete files.	Compare and seeing whether the file sizes match on both sides.	File sizes comparison.	The file sizes should match.
<b>WT3</b>	FR8	Add a new reserve with blank text fields	Ensure all text fields are left blank with nothing input in the fields	Page should display 3 errors and ask you to enter a reserve name, location and description	The reserve hasn't saved and the errors are displayed on the page
<b>WT4</b>	FR8	Add a reserve name which is longer than 64 characters	Type a reserve name which is longer than 64 characters	An error message should be displayed to tell the user the reserve name is too long and that there is a 64 character max	The error message should display and it shouldn't save the reserve as fields are also missing data
<b>WT5</b>	FR8	Add text to the location field as this requires OS grid reference coordinates	Input some letters instead of numbers	An error message should be displayed to tell the user that they need to enter a valid gps location (lat,lng).	The error message should display and it shouldn't save the reserve as fields are also missing data
<b>WT6</b>	FR8	Add a description to the text area which is longer than 100 characters	Add a paragraph which has more than 100 characters	An error message should display as the reserve description is too long and that there is a character max of 100	The error message should display and it shouldn't save the reserve as fields are also missing data
<b>WT7</b>	FR8	Add a new reserve to the table	Fill in all the fields correctly without the correct data format	The reserve should be added and you should be redirected back to the reserves page	There should be no error messages displayed and the new reserve should be saved in the table
<b>WT8</b>	FR8	When a reserve is selected to be	Keep a note of one of the	The edit button should take you to	The data should be displayed and



		edited all the stored data should be displayed in the form fields	reserves and then click edit to compare to ensure all data is displayed and is correct	a separate page which should show the form fields and the stored data	should be the same as it was on the previous page and should be in the separate fields
<b>WT9</b>	FR8	Try to edit the reserve name to be longer than 64 characters	Input a reserve name and ensure that is longer than 64 characters as this is the maximum that can be entered	The page should display an error to say that the reserve name is too long which should then go back to the previous reserve name as it won't overwrite it	This should display the error message and not rewrite the previous reserve name as this one is over the set limit
<b>WT10</b>	FR8	Try to save an edited reserve with empty fields that have no data in them	Choose a reserve and select edit then delete all the data from the form fields and save it	The page should display 3 errors to say the name, location and description fields cannot be empty and then should leave the data how it previously was	The 3 error messages have been displayed and the data has not been overwritten to be blank
<b>WT11</b>	FR8	Try to edit the reserve location by changing it from the OS grid reference to text	Delete the data in the form field and replace it with some text instead	An error should appear to say that is it not a valid GPS location and it should be (lat,lng)	The error message should display and not update the reserve that was being edited
<b>WT12</b>	FR8	Try to edit the description of a reserve by making it longer than 100 characters	Add another paragraph to the description text area and ensure that it goes over 100 characters	An error message should display to say you have exceeded the character count for the description	The error message should display and it should also not update the reserve description
<b>WT13</b>	FR8	Edit all of the data fields for a reserve by filling it with data that will be accepted	Input a new reserve name, a GPS location and a description of the reserve	This should save and redirect you back to the reserves page as this should be accepted	Its saved and updated the reserve that was edited and redirection to the reserve page
<b>WT14</b>	FR8	Check reserves data can be deleted	Choose a reserve from the table and select delete from the one you want to get rid off	This should delete that row and reserve from the table and it should no longer be displayed	The reserve can no longer be viewed in the table and has been successfully deleted
<b>WT15</b>	FR8	Check order of	The reserves	Viewing the table	The reserves are

		reserves	should be ordered in alphabetical order to make it easier for the user to find the reserve they want to edit or delete	should show the reserves in alphabetical order from the name of the reserve	saved in the table in alphabetical order
<b>WT16</b>	FR8	Check to ensure that the user can log into the account/website	Enter the user name 'admin' and password '123' into the login form and press login	As this is the user name and password that is in the database it should give access to the website	The user should be logged in and should be able to access the functions and options on the reserves page to add, edit and delete
<b>WT17</b>	FR8	Check to ensure that you can't login to the website using a user name and password which isn't in the database	Enter a random name and password into the form fields and press login	This should not allow you to login and should display an error message saying the login details are invalid	The user shouldn't be able to gain access to the website without having the user name and password from database
<b>WT18</b>	FR8	Once logged in the navigation should change from login to logout	Login to the website and check to ensure that the navigation bar has updated	The navigation bar should have updated	The navigation bar now has a link to logout rather than login
<b>WT19</b>	FR8	Once logged in you should have access to the functions that only the admin can carry out	Once logged in go to the reserves page and check to ensure that the buttons have no appeared	The buttons should now be displayed to allow the user to add, edit and delete reserves	The buttons are displayed and the admin can now carry out these options
<b>WT20</b>	FR8	When you are not logged in as the admin you should not be able to view the buttons to carry out the extra functions	When you are not logged in as the admin user you should go to the reserves page to see if the buttons are there	The buttons for add, edit and delete should no longer be displayed on the website	The buttons would not be displayed on the reserves page so the user cannot carry out the extra functions
<b>WT21</b>	FR9	The user should be able to search by reserve on the recordings page	Select a reserve from the drop down menu and select search	This should then display the records that are only related to that reserve	The records for the selected reserve are the only ones being

					displayed
<b>WT22</b>	FR9	The user should also be able to order the records by date after searching for a reserve	Select a reserve from the drop down menu and select search and then it should be ordered by the date	This should display the selection of records for the chosen reserve and should then order by date added	The records are only shown for chosen reserve and are ordered by the date
<b>WT23</b>	FR9	The records table should be sorted in alphabetical order by the species Latin name	Check the records page to ensure that it is stored in alphabetical order with the species name	This should be displayed in alphabetical orders of the species name	The records should be stored in alphabetical order of the species name
<b>WT24</b>	FR9	Check the viewing of thumbnails and images to ensure that they match and load properly	Open one of the thumbnails of the scene or species and ensure	Ensure that the one that opens matches the thumbnail that you clicked on	The thumbnail and image should match

Version	Date	Changes Made	Changed by
1.0	11.11.2014	Original document.	cpm6
1.1	11.11.2014	Removed duplicated tests and typos.	cpm6
1.2	11.11.2014	Changes made after formal review.	cpm6
1.3	10.02.2015	Added more Web tests	alm62, cpm6
1.4	12.02.2015	Added more Java tests	anh45, cpm6