Software Engineering Group 11 SE.QA.RS.S

Requirement Specification Summary

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<u>SE.QA.RS – Reserve Plant Species Recording Requirements Specification</u>

1. Introduction

1.1. Purpose of Document

The Purpose of this document is to provide an outline and summary of the content included in SE.QA.RS ^[1] for group members to use as a basic reference when creating the design specification.

1.2. Scope

The Summary aims to act as a basic guide and a quick referencing material for all members of the group and is to be used in conjunction with the original SE.QA.RS [1] provided.

1.3. Objectives

SE.QA.RS [1] identifies the requirements of the system being built for the project. It covers:-

- Background to the Project Application
- Criteria of the Project Application
- Types of interactions with the system that need supporting

2. General Description

- Computer based system to compile observations about plants and their occurrence in reserves
- Database will hold data of the reserves
- A mobile app will support field recording
- A website will provide access to the data base for maintenance

2.1. - Product Functions

- A mobile app to make records of plants
 - o Will include:-
 - Recorders details
 - The date
 - A list of species and details
 - A facility to transmit to the server when in Wi-Fi/internet range
- A server which receives the records and adds them to the database
- A website which allows:-
 - Addition and maintenance of the reserves
 - Viewing of species records for the reserves

2.2. - User Characteristics

- Used by naturalists
- Familiar with standard computer interfaces
- Concerned with accuracy of recording
- May have to operate in difficult weather conditions
- May have to operate in remote location

3. Specific Requirements

3.1 – Functional Requirements

- FR1 Start-up of Software on Android Device
 - Opportunity to start a new visit recording
 - Prompted for details (FR2)
 - When recording complete should be possible to record at a different site
- FR2 Providing Information about the Visit
 - o Identify the site
 - o Recorders Name, Phone number, Email
 - Date and time of recording
- FR3 Adding a Species to the Recording
 - o Select a species
 - List provided as BSBI List 2007
 - If not there option to create a new species
- FR4 Adding Species Details
 - o Each species should have:-
 - A typical location for it
 - An abundance by the DAFOR scale (Dominant, Abundant, Frequent, Occasional, Rare)
 - Free text comment option
 - Photo of the scene option (either taken or from gallery)
 - Photo of the plant option (either taken or from gallery)
- FR5 Editing the Record
 - Must be possible to:-
 - Delete a whole recording
 - Delete a record for one species
 - Change any of the species details in an existing record
- FR6 Sending Recordings to the Server
 - Should be sent when possible for addition to the database
 - Should be in the format of a Multipurpose Internet Mail Extensions (MIME) message
 - Sent via HTTP Post to a predefined URL
 - o Should include:-
 - Information on the visit (FR2)
 - Information about each species recorded (FR3, FR4)
- FR7 Receiving Recording on the Server
 - Should receive the transmission of the recording (FR6)
 - Store it in the database
 - Authentication is optional
- FR8 Addition and Maintenance of Reserve Data
 - Create, Update and Delete a reserve record
 - Each reserve should include:-
 - Name
 - Location (OS grid reference of main entrance)
 - Textual description
 - Authorisation is optional

- FR9 Browsing Species Records
 - Select a reserve and view a list of species at that site
 - o Alphabetical order of Latin name
 - o Include earliest and latest recording
 - Should be possible to drill down to a date ordered list of all records
 - Should include the recorders name, date ,abundance and any photos

3.2 - External Interface Requirements

- EIR1 Appearance of Interface
 - o Intuitive to regular computer users

3.3 – Performance Requirements

- PR1 Response of Program to User input
 - o Any User input should be reflected on the screen within 1 second
- PR2 Target Computer for System
 - o All software should run correctly on appropriate platform

3.4 - Design Constraints

- DC1 Use of Java and Eclipse/Android Studio
 - o Java must be used in either Eclipse or Android Studio.
 - Server side can be developed in any web platform that runs and is available in Computer Science department
- DC2 Production of Test Data
 - o Functionality shown by exploration of at least 2 reserves
 - Each with at least 2 recorded visits with overlapping species records

REFERENCES

[1] QA Document SE.QA.RS - Reserve Plant Species Recording Requirements Specification

DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to document	Changed by
1.0	N/A	18/10/14	Document Created and Structured	TCG2