Software Engineering Group 11

SE.QA.RS.S

Requirement Specification Summary

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SE.QA.RS – Reserve Plant Species Recording Requirements Specification

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
    - 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
  - Identify the site
  - Recorders Name, Phone number, Email
  - Date and time of recording
- FR3 – Adding a Species to the Recording
  - Select a species
  - List provided as BSBI List 2007
  - If not there option to create a new species
- FR4 – Adding Species Details
  - 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
  - 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
    - Alphabetical order of Latin name
    - 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
    - Intuitive to regular computer users

3.3 – Performance Requirements

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

3.4 – Design Constraints

- DC1 – Use of Java and Eclipse/Android Studio
    - 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
    - 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