Tehnical Report

-Botaniq-

SCOPE:

Looking to explore our green spaces? Botaniq is a web application which offers features for the cartography of Botanical Garden from Iasi, including various digital ways to explore and display educational information about various species of plants. It uses crowd-sourced information to map the distribution of flora throughout Botanical Garden. With our application you can also learn about diversity of plants classification, conservation, soil preparation, seeding procedures and pollution prevention.

SOFTWARE REQUIREMENTS SPECIFICATION

This application starts with a home page which contains, login and register, contact details, hours of visiting, location, parking place and a brief information about Botanical Garden. This application has 4 types of users:

1. Guest
2. Registered (Plants Lover)
3. Admins
4. Moderator

1. Login and Register

For a user to register must fill all the fields and get registered into the web applications and later he is sent an e-mail to verify his identity. As soon as he/she clicks the link that is sent to his e-mail then he/she is redirected to their profile page where they are given access for Registered and take advantage of the application according to this user type.

2. Managing User Accounts

This section explains the functionality of the user accounts that is provided after registration according to the user type.

a) Admin user

Every page of the user profile shall have the links to every other page to which that particular user is permitted to use. Users who created the web application will have the admin right. The home page of the admin shall have link:

- Home – Redirects to Profile page
- Edit Profile – Profile information for moderators and users shall be updated and edited
- History – All the work done by the moderators shall be seen
- Logout

b. Moderator user

Every page of the user profile shall have the links to every other page to which that particular user is permitted to use. The moderator user is one of the persons who worked at this web applications and has been previously registered by admin. This following links shall be display in the home page of the moderator:

- Home
- Edit profile
- Rating – All the ratings posted to the photos shall be seen
- Comments – All the comments posted shall be seen
- Uploads – All the photos posted shall be seen
- Database – Manage database
- History – All the links, photos, ratings, comments shall be seen
- Logout

They can see all the activities which were made on this application.

c. Registered user

This type of user can post through the web application where he receives a response from the moderator. After the registered user logs in he/she should be able to see the following links:

1. Home
2. Edit profile
3. Comments – Shall write a comment
4. Ratings – Shall rate a photo
5. Upload – Shall upload a photo
6. Virtual Tour – Shall take a virtual tour
6. History – Shall see a list of his activity on the application
7. Logout

He/she will receive on email informations about the events.

d. Guest user

Every user which will visit our web application . He/she will be able to see the following links:

1. Home
2. Garden Sections
3. Plants Classification
4. Virtual Tour
5. Foto Gallery
6. Events
7. Logout

He/she will not be able to upload a photo or to comment.

Design and Implementation

1. User Interface

The user interface is one of the major things on the web application end, since many users come to a conclusion on the standards and services of the application by

looking at it. Having a good UI is very important.

Tehnical Details

1. Technologies Used:

This section focuses on technologies used in Web interface.

a) Java – built the application on it

b) Java JAX-RX – to develop REST API service

c) Data Base Stardog – is a pure Java RDF database which supports all of the OWL2 profiles. In our application we used it to store and retrieve data.

d) Google Maps API – to power location experience of users

e) HTML – creating the UI

f) CSS – creating the UI

g) JavaScript – use to provide dynamic functionality of the web application

2. Problems occur:

- Map API key
- External Database connection
- Having a proper ontology