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Motivation

Occasionally people are interested in identifying a plant they see. Aim of this project is help them find the plant they have been looking for with a tool specialized on plants.

Purpose

Building a web application/query interface for making a search among plant species based on selected attributes with a user friendly interface and futureproof technical background.

What's done

Once we started this project there was already a published version of it. Our part was improving user interface and filtering system. To achive that, we decided to create new application from scratch. The reason behind that was mostly scalability issues, besides that previous version was relying on client side computation by design and lastly we had a minimalistic design approach.

We handled these issues by making the app database driven. Filtering is now made by database queries and this eliminates the technical issues since, databases can be easily maintained (which solves scalability problems) and queries made in server side (this lightens workload of client).

Technical Information

The application designed to run on a single page. It runs on a stack that based on MySQL, nodeJs, ExpressJS and Nginx and some Javascript libraries (jQuery & some plugins etc.). Bootstrap is used for page layout.

What's learned

- Decision Trees, how they are built, how they can be used in classification & filtering, how to increase their accuracy.
- Background of developing a web-application.
- Designing a User Interface.

Additional Info

- App currently contains 334 species, but a major update (around 10000 species) is being developed.
- An "admin mode" is also being developed to be able to make manipulations/corrections and enter new records on database via application.

In figure up-to-date version of the application shown. On the left hand side questions and some statistics take place. And on the right side matches appears.

Despite, six of attributes to filter shown, currently there are nine of them. They are hidden because they are conditional of another question.

