Plantopedia

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Description

Our application allows a user to navigate a large database of information on most known plants of the world. The app provides a rich search function and a detailed, human-friendly view of individual results.

Features

- Connection to web API (Trefle)
- Search along multiple fields
- Filter and sort results
- Table view of details on individual plants
- Persist results in database

Planning - User Stories

Home gardeners and other plant enthusiasts often want detailed, actionable data about the plants they grow. Wherever this data is collected in a single site or database on the web, it tends to lack human-readability in its presentation. Our application leverages one of these exhaustive web resources and presents the data there in a more inviting view.

Planning - Database

Since the application relies on data provided by Trefle, the database structure mirrors the structure of the JSON objects returned by Trefle API calls. For each such object, there is a table, which contains a column for each field of the object.

Technology Stack

- JAVA
- Spring Boot
- Thymeleaf
- MySQL 8
- Hibernate and JPA

Demo

What I Learned

- More details of building ORM structures with Hibernate and JPA
- Using Rest APIs: querying API endpoints, storing results as POJOs, persisting results as entities
- Using Spring Data query creation to implicitly create repository methods
- Pagination of search results

What's Next

- Map view of search by geographical distribution
- Taxonomical search
- Integrate Bootstrap for more attractive views
- Create user models and authentication layer to support login
- Authenticated user functionality like saving plants, requesting corrections, and contributing information