Team Ozymandias

Brown2Green

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Stage 1: Project Proposal

Problem Statement

In its current state, SOAP does not provide an effective line of communication for its users to get in contact with outside officials. For general users or specific environmental organizations interested in lobbying for the cause, it is important to have a centralized database that contains contact information for political figures, both on the state and federal level. For Habitat for Humanity or anyone interested in purchasing a brownfield, it is also important to include contact information for experts in the field. These experts can help the user make an informed decision about whether it is worth the cost and time to purchase the land and clean it up.

Objective

The objective for our module is to extend the SOAP database by adding additional tables which would include contact information for the aforementioned individuals. By abstracting the already existing congressperson entity, we will create a generalized person entity, with specialized entities for legislators and experts. The legislator entity was designed to connect to the already existing state entity. However, there was no state entity, so the state was simply left as an attribute of legislator with no foreign dependency.
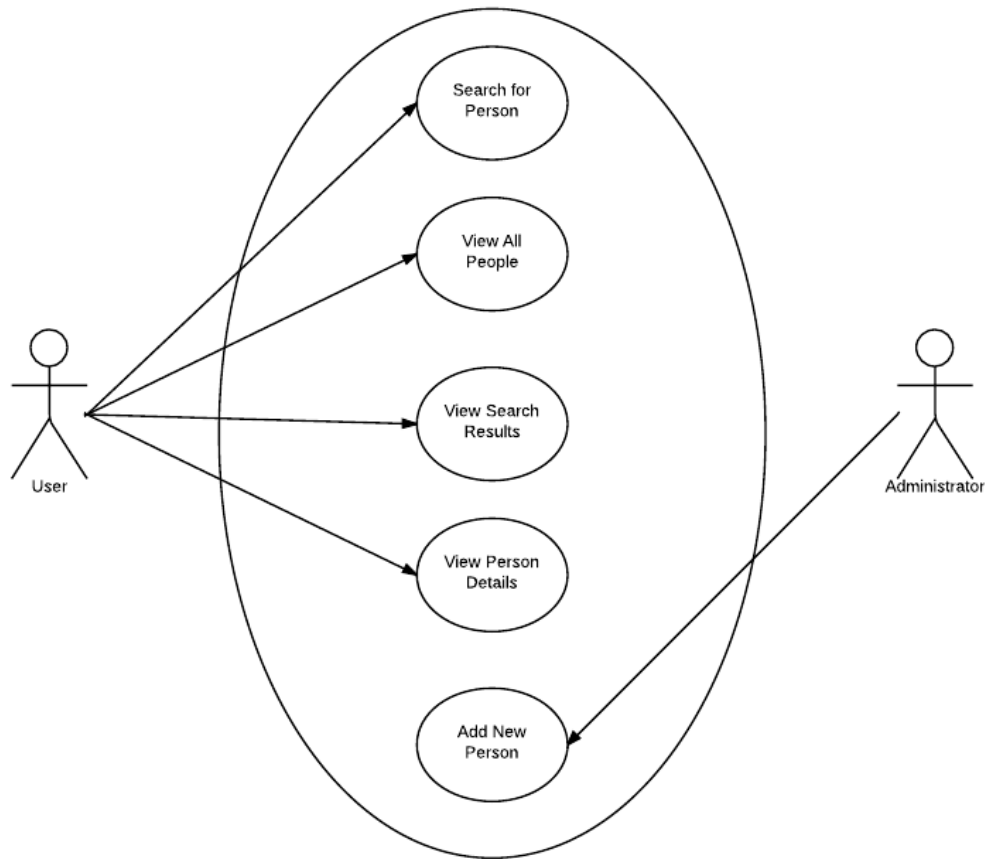
Desired End Product

For our end product, we would like to create a main page that would include all experts and legislators in the SOAP database. We will provide the user with the ability to filter these people down by certain selected fields, such as name, location, area of expertise, etc.

Need

Habitat For Humanity needs to screen different properties before they decide to build on them. Being able to get in contact with experts in the field would help their decision making process. Lobbyists also would benefit from a centralized database with contact information for the politicians of interest.

Boundary Diagram

Initial Database Size

This information depends on the amount of experts and legislators to be added into the database, which at this time is still being compiled.

Views

The main view for this module would be a page that would allow a user to filter down the collection of all legislators and experts based on certain attributes and retrieve the desired contact information. After filtering, the pictures and information of only the people that return as a result of the queries will remain on the page.

Performance

The main performance goal for our project is that the contact information is quickly and easily available. If the contact information cannot be found in a reasonable amount of time, it will offer no added convenience to the end user. The added information should not slow down the

query time. The end goal is to improve convenience through more information while keeping the same response time.

Security

Security for the project isn't of paramount concern due to the fact that the information we are adding is freely available on various web pages. Due to this, our only real security concerns are that we don't add vulnerabilities when adjusting queries and adding additional information to the database. If not yet implemented, different users of the system should have different views of the database.

Backup and Recovery

Since we will be implementing a large database for queries about politicians and experts, we will need to make sure that all the stored information does not get lost if the system fails in any way. Hopefully the data that is stored in the database that we will be working on will be stored in another place that can be used as a replacement for our database if it crashes. Furthermore, to reduce downtime in case of a failure like this, we might set up another backup server that holds the same database.

Possible Applications

There are a wide variety of applications for the system that we have envisioned for the SOAP database. Obviously, the main goal of the system is to provide Habitat for Humanity with an easy way to learn information about specific brownfields in the Trenton area so they know whether it will be cost efficient to build affordable housing in those locations. Other than the main application, people of Trenton will be able to look up and learn information about brownfields in their area by contacting the appropriate officials. They will be able to proactively get brownfields cleaned up by contacting the congressmen that work in that brownfield's district because that information will be readily available while viewing each brownfield.