{ infrastructure }

CORPUSCHRISTI
church management suite

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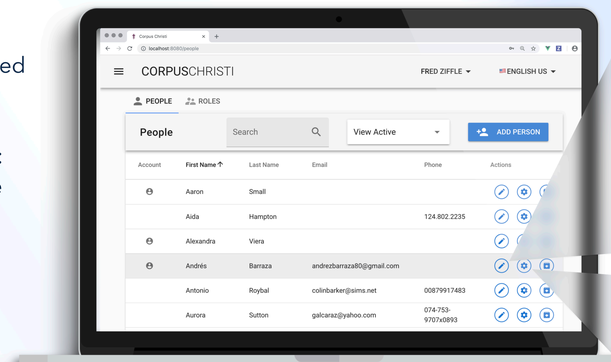
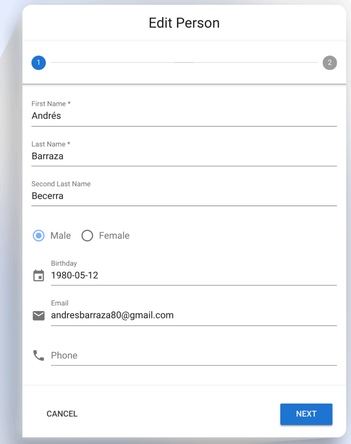
API { Luke Brom | Josh Clement } **DB** { Sarah Wenger | Luke White }
QA { Andrew Dorn | Will Kercher } **LEAD** { Bryson Shelor }

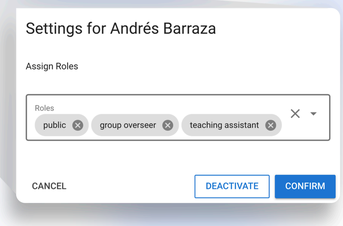
USERINTERFACE

Using Vue.js and Vuetify, we built the user interface with component based programming and utilized API endpoints to communicate with the database. We primarily focused on the infrastructure UI of Corpus Christi, and used Material Design guidelines via Vuetify.

We built three main sections of the web app: People, Roles, and Home Groups. The People tab includes capabilities for adding users, editing an account, and archiving a person. The Roles tab allows an admin to manage roles for any given account, and the Home Groups page gives an admin the proper tools to manage all groups.



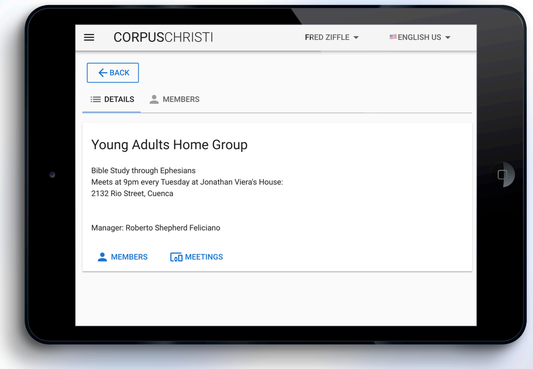




APPLICATIONINTERFACE

The Application Programming Interface (API) served as a bridge connecting the front-end of the application to the back-end database. We worked on endpoints such as creating, reading, updating, and deleting (CRUD) operations for anything to do with people, roles, and homegroups.

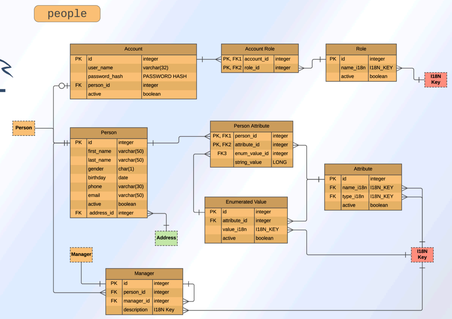
In addition to normal CRUD operations, we designed endpoints for the creation of dynamic forms that were used in the process of account creation.
We also developed an authorization decorator that allowed any API endpoint to check the permissions of the user accessing the endpoint. This also involved revoking any old tokens when a user's permissions were updated.



DATABASECREATION

Infrastructure interacts with three main areas in the database: people, places, and groups. Each area contains tables storing an assortment of relevant information. For instance, the People area contains personal information, attributes, roles, and accounts which are all linked to a person object.

We used multiple many to many relationships throughout the database. To do this, we added an adjoining table that connected the two tables that required a many to many relationship.



ARCO IGLESIA CHRISTIANA

The need for this project was born out of Arco church leadership's desire to better track and manage the people participating in church activities. They wanted to streamline their administrative tasks in order to allow for smooth and scalable growth.

what we learned

Throughout this project we got to experience a real-world work flow. Over the course of the two-week project our interpersonal communication improved dramatically through our daily stand-ups and pair programming. Our system for project management within GitHub also developed while we were in Ecuador, compensating for the rapid development by focusing on higher-level issues instead of smaller details. The future of this project will reside in the hands of student workers this semester to complete the remaining requirements for the software.

acknowledgements

A huge thank you goes to our fearless team leaders, the Nurkkala's, for their patience and hard work. We also want to thank Arco Ministries and our other leaders – Ben Roller, the Kiers, and STAN!!!

QUALITYASSURANCE

API Testing
The goal of API testing is to have 100% test coverage of our developed API endpoints. This involved generating GIVEN, WHEN, and THEN scenarios in order to ensure proper functionality. These tests will be able to be used in future development to ensure stability.

End to End Testing
We used Cypress to directly interact with the Document Object Model (DOM) elements of the created web application. This ensured that as we added new features, the website functionality from the UI to the database still worked as intended.