UC-85 Universe Language Solutions CRM App

Abstract

The Universe Language Solutions mobile app and desktop app system will allow the company to manage requests to book the services they offer. The desktop app is used by the administrative team to view what clients have requested and what staff can work. The mobile app will be used by clients and staff. Clients can see what services are offered and request the service they need, as well as see the status of current requests and what services have been requested in the past. The staff will be able to view and accept, decline, or reply maybe to upcoming jobs to work at. This allows Universe Language Solutions to have one place to perform all transactions.

Introduction

Universe Language Solutions is an Atlanta-based company that provides interpretation, translating, and closed captioning services to various companies around the world. Universe Language Solutions will provide the staff, which can include interpreters, translators, technicians, technical assistants, distribution assistants, and/or captioners, and the necessary equipment to the client in order to provide the requested services.

The mobile app and desktop app system will streamline the current process in place at Universe Language Solutions, which currently utilizes only email and phone calls to request and book services and staff events.

We worked with Carlos Solís, one of the founders of Universe Language Solutions, to create a mobile app and a desktop app that fit his needs for his company.

Project Goals

The main goal of our project was to streamline the process Universe Language Solutions uses for booking services. Before the creation of the mobile and desktop apps, all bookings and staffings were completed through email or over the phone. The app system ensures that all information is in one place and that nothing is misplaced or overlooked when a client is trying to book a service or the administrators are trying to schedule staff to work events.

Materials and Methods

The Universe Admin Application is a full stack application that combines modern technologies to accommodate the client's needs. The application uses VueJS and ElectronJS frameworks for the front-end, NodeJS framework for the back-end server which handles the authorization for database access and APIs, we also used google firebase for our database.

The back-end server for this project is hosted in the cloud using Azure services and Docker containers were used during development in order to keep all dependencies the same across my machines.

The mobile app is a full stack application created with React Native and Firebase. Different NPM libraries were used to create the frontend components, and it's mostly based on JavaScript and CSS. For the backend, the app handles authentication and calls to the database through the React Native Firebase API.

Results

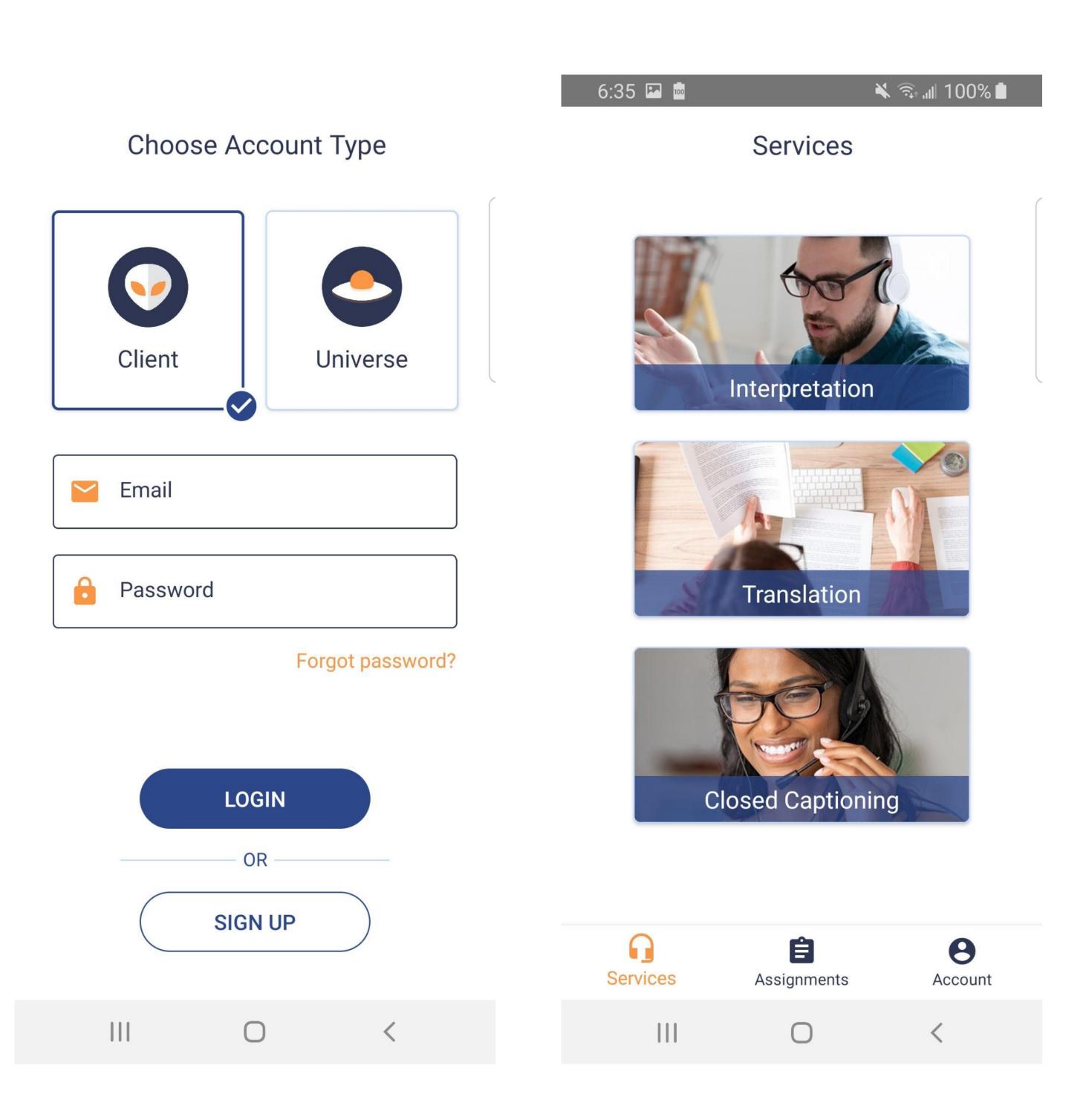### Primary Functions of the CRM App

- The mobile app will allow clients to book services directly in the app and include all required information.
- Clients can also see past services they have requested and easily request the same type of event again.
- The request is then sent directly to the administrators' desktop app, where they can then accept the service and staff the event.
- The desktop app also includes contact information for all current and past clients and staff, as well as all of the information for current and past events and services.
- Staff can log into the mobile app to accept or decline jobs.

Experience

This project was a great experience to grow our coding and documentation skills. We also got the chance to practice requirements gathering in a real-world application instead of just for class projects.

Previous Relevant Coursework

- SWE 4663: Project Management
- SWE 3153: Database Systems
- SWE 3623: Software Systems Requirements
- TCOM 2010: Technical Writing
- SWE 3643: Software Testing & Quality Assurance
- SWE 4783: User Interaction Engineering

Conclusions

We successfully created both the mobile app and the desktop app, as well as completed all applicable documents. The database connecting the mobile app to the desktop app is also complete, and everything has been thoroughly tested.

Of all of the requirements set forth by Caros, the only one we were not able to include in this first final version was attaching documents directly in the app when a client requests a translation service. This feature was not a priority, since Carlos had mentioned that documents can still be emailed when the contract was also being discussed.

Our biggest take away was how to effectively manage our time and evenly divide up tasks. We were able to quickly figure out who had what strengths, and how those strengths would be best utilized in the project. After that, understanding that other people or groups might need additional help or information from you, even if it wasn't originally your job, was our next biggest hurdle.

In the end, we created a successful, fully-working application system that is ready to be used by Universe Language Solutions, and we gained applicable software, documentation, and teamwork skills that we will use moving forward into our respective careers.
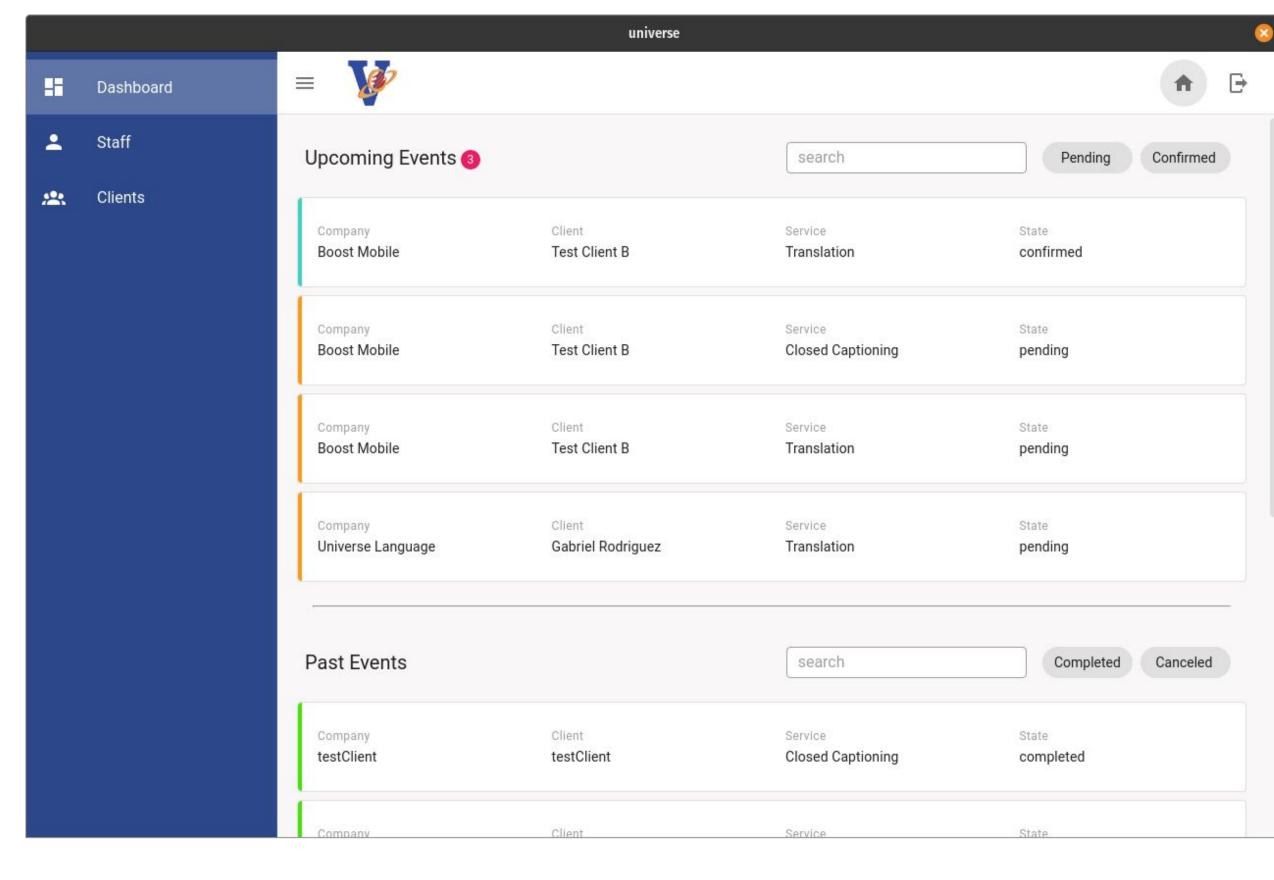
Acknowledgments

Contact Information

- More information about Universe Language Solutions can be found at https://www.universelanguage.com/.
- More information about this project can be found at https://sites.google.com/view/ulsappcapstone/
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References

https://www.universelanguage.com/
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