LinguaConnect

Mapping the Way to Language Fluency, Together.

Introduction: General Project Objective

LinguaConnect is a web application designed to bridge language learning with community building, connecting individuals within their own neighborhoods as well as learners from across the globe. My aim is to provide a user-friendly and inviting platform where users can engage in language practice, exchange cultural experiences, and organize or join local language events. Featuring intuitive profiles, real-time chat, and an interactive map for discovering nearby language partners and events, LinguaConnect is set to be a central hub for language enthusiasts—a place where learning new languages is as much about forming meaningful connections as it is about mastering the words and grammar.

Origin of the creative idea

Inspired by my own experiences as an immigrant, LinguaConnect was born from a desire to make language learning a communal affair. It's more than an app for chatting in different languages; it's a platform for bringing people together for local language events and cultural exchanges, turning the challenge of language barriers into opportunities for community connection.

Project vision and mission

LinguaConnect aspires to redefine the language learning landscape. I'm on a mission to deliver a superior platform that not only enhances language skills but also weaves a tapestry of community and cultural understanding.

01.
Vision: To be the leading platform where language learning is a collective journey, enriching lives through cultural exchange and community engagement.

02.
Mission: To empower individuals around the world to connect, share, and grow through language by providing an accessible, community-focused platform for real-time communication and event organization.

03.
Commitment: To continuously innovate and foster a supportive environment that celebrates diversity, facilitates lifelong learning, and bridges cultural divides through the power of language.

Inspiration and creativity

New York City's diversity is the heartbeat of LinguaConnect. The city's blend of languages and cultures has inspired the platform's vision, showing me the immense potential for a language exchange community right here. In this city of endless possibilities, LinguaConnect aims to turn every interaction into an opportunity for learning and connection.

Ideation process

01

Conceptualization: Began with identifying the need for a more integrated language learning community, inspired by the cultural tapestry of New York City.

02

Market Research: Conducted thorough research on existing language exchange platforms, pinpointing gaps and opportunities for a more community-focused approach.

03

Feature Mapping: Outlined essential features by prioritizing user experience, such as real-time chat, event organization, and an interactive map.

04

Feedback Loops: Consulted with friends and potential users to understand what features they value most in a language exchange app, refining LinguaConnect through their insights to ensure it resonates with a diverse audience.

Creation process

- **Initial Documentation & Design**: Developed initial flowcharts, wireframes and prototypes to visualize the user interface, and design documentation that included user stories, feature outlines, a schema for the database, and the technical implementation logic.
- **Technology Selection & Learning:** Conducted extensive research to select the most suitable tech stack for the project's needs and dedicated significant time to learning new technologies to ensure a solid foundation for development.
- **Feature Development (In Progress):** Began developing core features with a focus on user profiles and real-time chat functionality, with plans to integrate the interactive map and event management tools in subsequent phases.
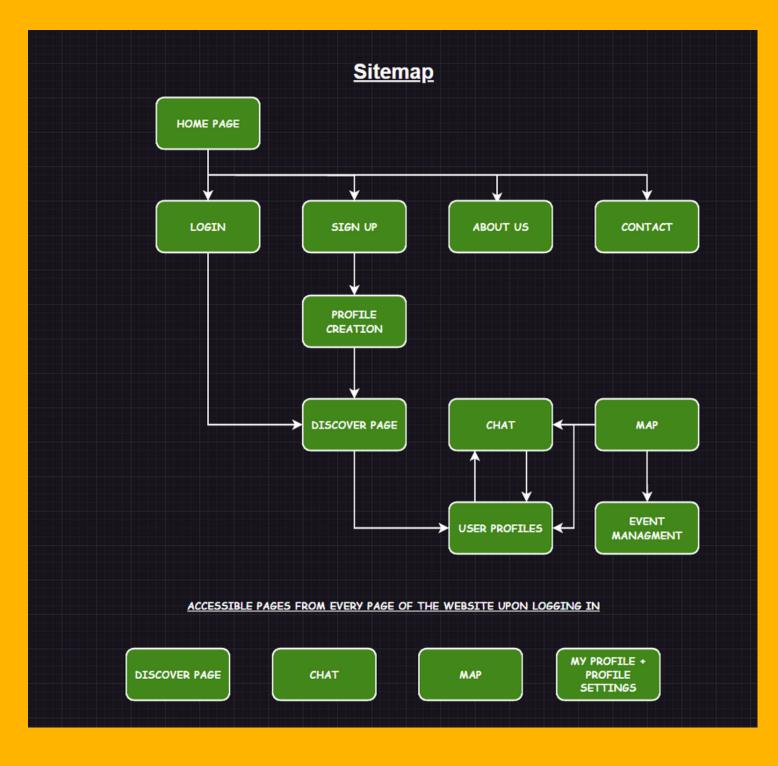
01. **User Profiles**

02. **Real-Time Chat**

Core Features

03. **Interactive Map**

04. **Event Creation & Management**

Sitemap of LinguaConnect

Timeline: Key Dates and Phases

9/11

COMPLETED INITIAL DESIGN DOCUMENTS, ESTABLISHING THE PROJECT'S BLUEPRINT.

10/02

COMPLETED FULL AUTHENTICATION AND AUTHORIZATION FOR SERVER AND CLIENT-SIDE.

10/09

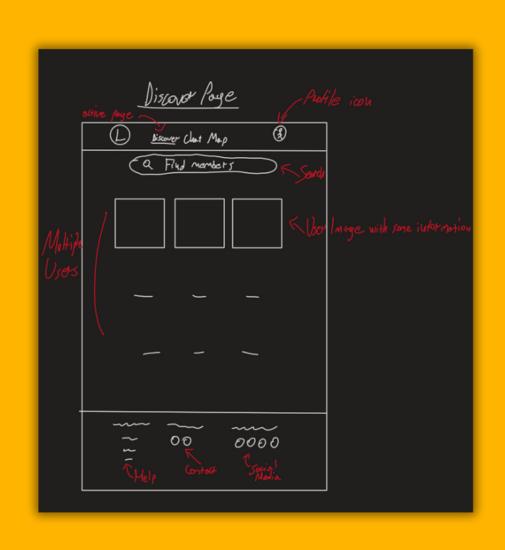COMPLETED USER PROFILE PREVIEW AND CUSTOMIZATION OPTIONS.

10/14

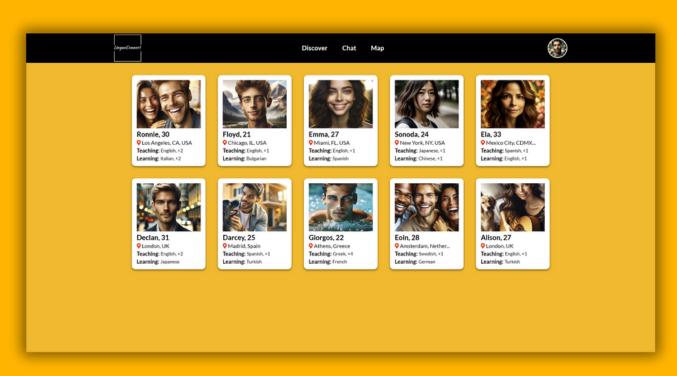COMPLETED PUBLIC USER PROFILES AND THE 'DISCOVER' PAGE FOR BROADER USER INTERACTION.

10/23

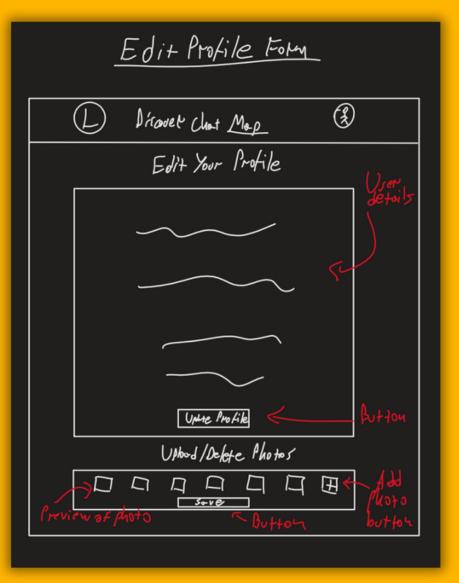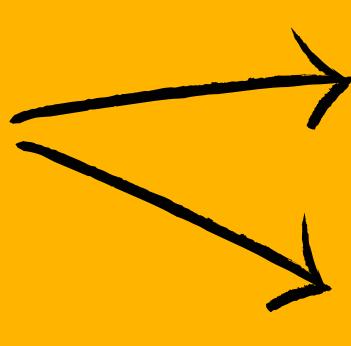COMPLETED CHAT INITIATION FUNCTIONALITY ALONG WITH NOTIFICATION ALERTS.

11/02

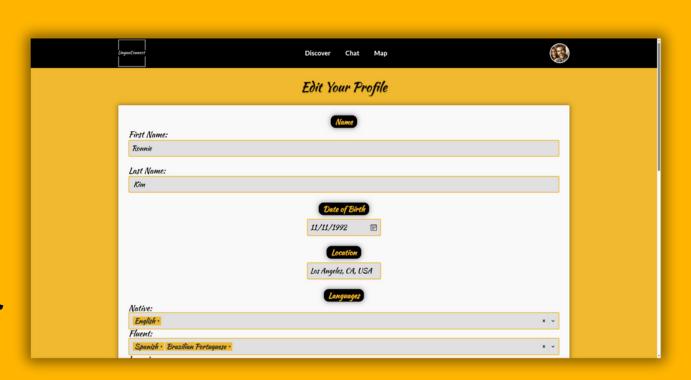COMPLETED REAL-TIME CHAT CAPABILITY, ENABLING INSTANT USER COMMUNICATION.

Wireframes vs Developed Features

Wireframes vs Developed Features

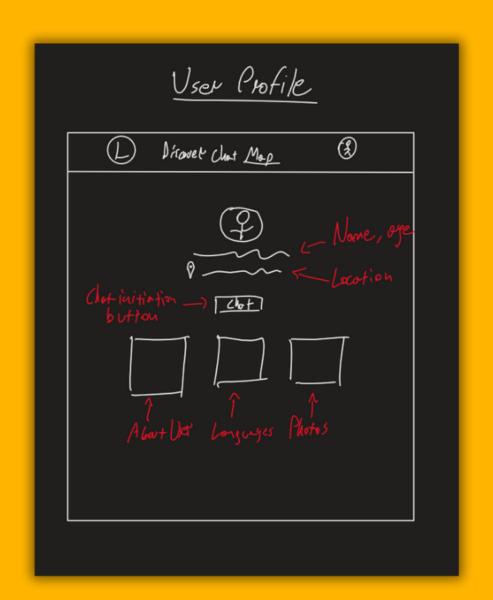# Wireframes vs Developed Features

Wireframes vs Developed Features
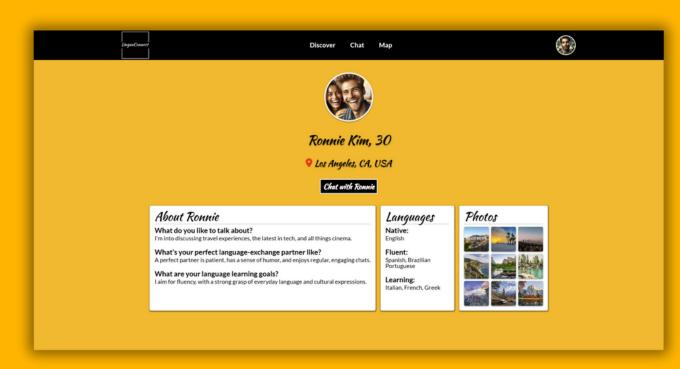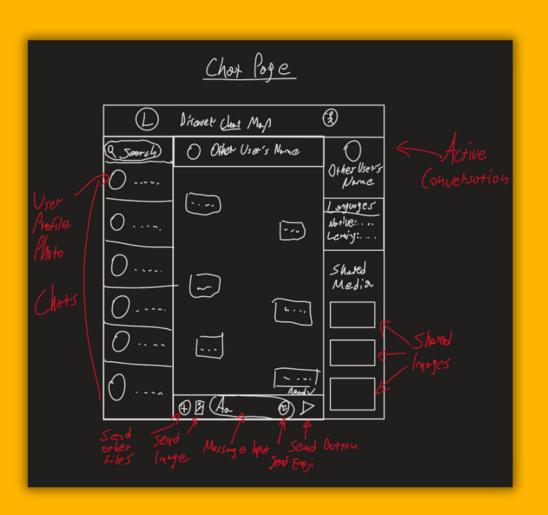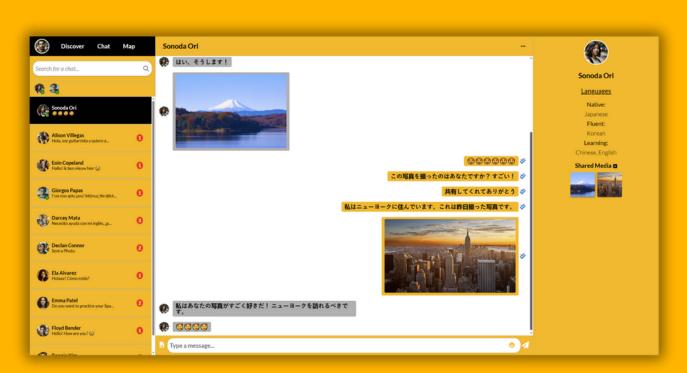
Final Feature (Work in Progress)

The Most Challenging Phase of the Development So Far

The journey of building LinguaConnect has been marked by several learning opportunities, but the most formidable challenge arose during the integration of authorization and authentication across the server and client interfaces. This phase coincided with my deep dive into Redux—a state management tool that was entirely new to me. Grappling with Redux's intricate architecture while ensuring a seamless and secure user experience tested my resolve and technical acumen. It was a period of intense learning, filled with trial and error, as I strived to align Redux's sophisticated mechanisms with the authentication flow. This endeavor not only fortified the application's security but also significantly expanded my skill set, ultimately contributing to a more robust and reliable platform.

Navigating this challenge required a rapid and thorough education in Redux. I engaged with a structured Udemy course, enriched my understanding through various YouTube tutorials, and sought targeted guidance from ChatGPT. This blend of resources proved instrumental in my swift adaptation to Redux, equipping me with the skills to enhance the application's functionality and my own development expertise.

Screenshots from Registration Flow Design Document

User registration flow:

1. **Account Registration** (username, email, password, and password confirmation)
2. **Profile Completion** (all the other details, e.g., first name, last name, languages, about, photos, location, etc.)

Here's a step-by-step breakdown of the implementation:

1. Account Registration:

1. **Frontend**:

   - Display a registration form with fields: username, email, password, and password confirmation.
   - On successful submission, the backend will respond, and the frontend should then redirect the user to the profile creation page.

2. **Backend**:

   - Accept only username, email, password, and password confirmation for this step.
   - Validate these fields based on the Mongoose schema.
   - If all validation passes, save this user in the database.
   - Generate a JWT token to keep the user authenticated.
   - Respond to the frontend, signaling a successful registration.

2. Profile Completion:

1. **Frontend**:

   - Display the profile completion form with fields like first name, last name, languages, about, etc.
   - Ensure the user can't navigate away from this page without completing the profile or they'll be directed back to it.
   - On successful submission, update the user's profile in the backend.

2. **Backend**:

   - Receive the data from the profile completion form.
   - Validate the data based on the Mongoose schema.
   - If all validation passes, update the previously created user entry in the database with the additional details.
   - Respond to the frontend.

3. Post-Profile Completion:

   - Once the profile is successfully completed, the user can be redirected to the 'discover' page.
   - The user should now have full access to the website's features.

Note: If a registered user exits the profile creation page without completing it and later logs in, they'll be redirected there again, which must be completed before accessing the rest of the website.

Thank you very much!

Github Link: https://github.com/AntoniosCG7/LinguaConnect

Trello Link: https://trello.com/invite/b/TPoeGLCz/ATTI10438337b42b1d18043a968f64d97544E0048591/linguaconnect