By: Emiliano M, Daria R, Vijay K, Christian V, and Brandon M
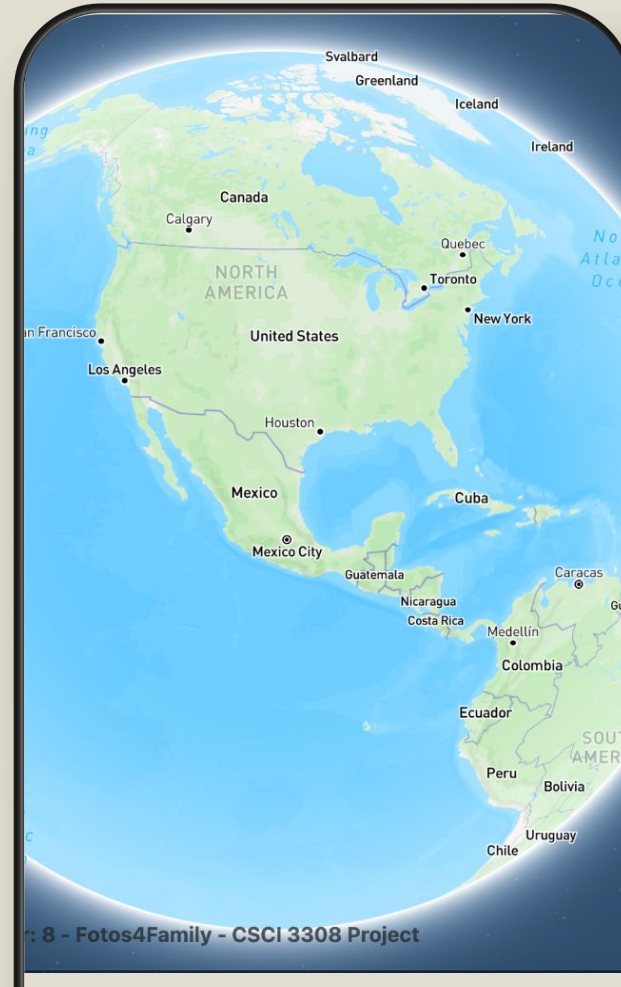
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Fotos4Family

Fotos4Family

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WHO WE ARE

Fotos4Family is a web application designed to help families and friends preserve memories by allowing them to collaboratively pin, comment on, and upload photos from special locations around the world. The idea comes from a simple vision: **to create a digital map of shared experiences.**

Imagine going on a trip with loved ones and being able to mark that exact spot on a map, leave a comment, and add a photo that captures the moment, then invite others to do the same. That's exactly what **Fotos4Family** offers.

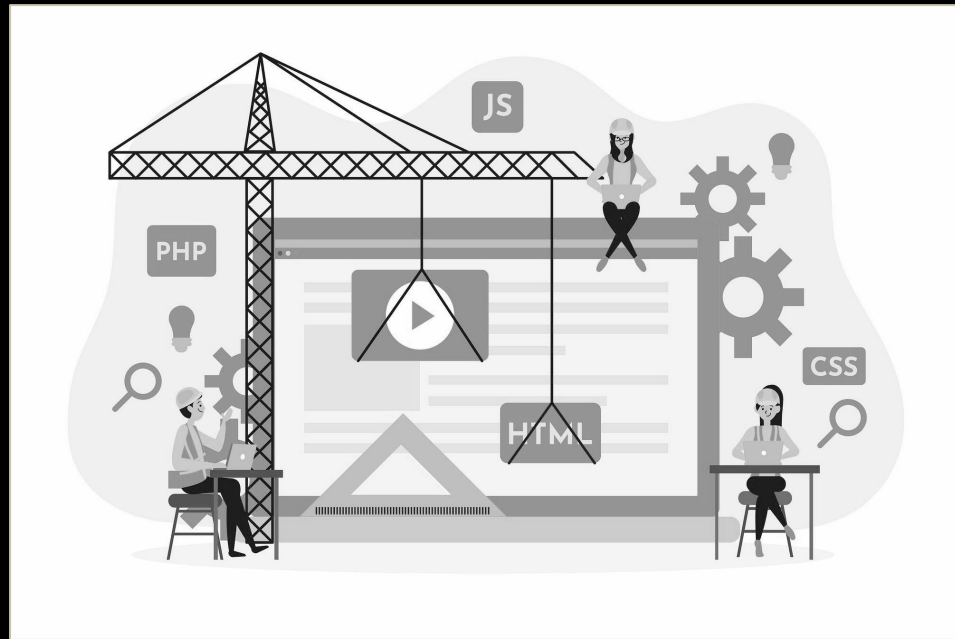## Whether it's a road trip, a family gathering, or a solo adventure, users can:

- 📍 Drop personalized pins on an interactive map

- 📸 Upload meaningful photos tied to specific places

- 💬 Share thoughts and comments on each pin

- 🤝 Add friends and explore their map and memories too

Our platform is more than a travel log. **It's a memory network, a space where people visually connect with the places and people that matter most.**

Fotos4Family is our way of helping users build a shared legacy, **one pin at a time.**

All the tools used

Fotos4Family

Tool & Logo			Rating(1-5)	Methodology Tags	Purpose
1	GitHub		★★★★★	•Peer Code Reviews •Branch Workflow	• Version control • Collaboration • Github Projects Board
2	VSCode		★★★★★	•Programming •Individual Dev	• Main IDE for development
3	PostgreSQL		★★★★★	•Backend Integration	• Relational database
4	Node.js/Express		★★★★	•Express Framework	• Application server
5	Render		★★★★	•CI/CD Deployment	• Deployment platform
6	Mocha/Chai		★★★	•Testing	• Unit testing backend routes
7	Handlebars		★★★★	•Dynamic UI •Rendering	• HTML Templating
8	Mapbox API		★★★★★	•External API •Integration	• Interactive Maps • Home page (maybe most important)
9	Bootstrap + CSS		★★★★★	•Responsive Design	• UI styling • Layout
10	Multer		★★★★	•Middleware Integration	• File/image upload
11	MS Teams/Zoom		★★★★★	•Keeping in touch •Chatting	• Key for communication (2x per week) • Async Updates, Team Sync

Fotos4Family

Effectiveness (1–5)

⭐⭐⭐⭐

Agile / Iterative

Applied?
Yes

- We broke development into weekly goals
- Adjusted based on progress.

Effectiveness (1–5)

⭐⭐⭐⭐

Peer code reviews

Applied?
Yes

- We reviewed each other's code before merging major changes.

Effectiveness (1–5)

⭐⭐⭐

Pair Programming

Applied?
Occasionally

- Used for key features like pin filtering
- Session Handling

Effectiveness (1–5)

⭐⭐⭐⭐⭐

Live Testing/ Debugging

Applied?
Yes

- We tested and debugged collaboratively during meetings.

Effectiveness (1–5)

⭐⭐⭐⭐⭐

Team Stand Ups/Meetings

Applied?
Yes

- Weekly check-ins to assign tasks
- Review progress.
- Talk about future steps

Architecture Diagram

Fotos4Family

Architecture Diagram

Server Side

•PostgreSQL

Front end

Back end Server side

Client side

Http request

Database

•Handlebars

•PostgreSQL

Browser

•Node.js

•Express

Response

•CSS(Bootstrap)

•Render

HTML

•Multer

MapBox

•Mapbox API
•For maps and pins
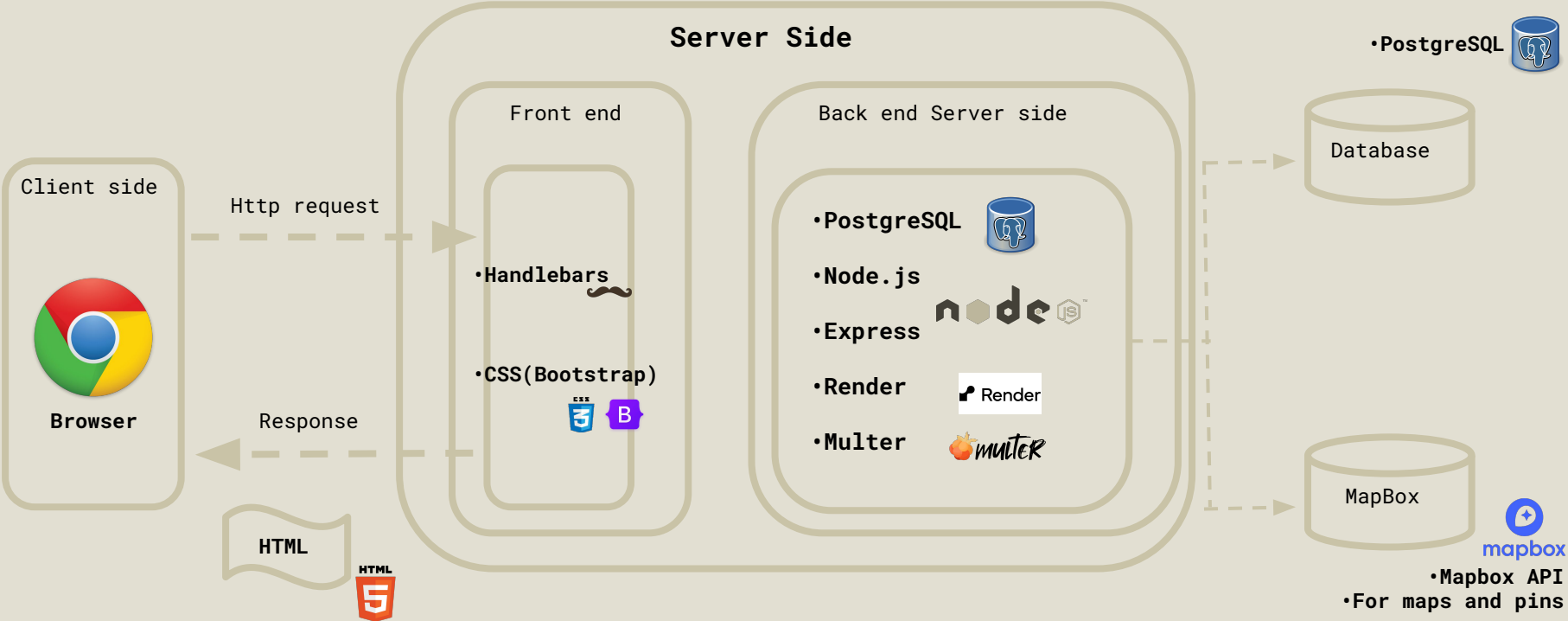
Challenges

Challenges

⚠ 1. Changed Vision

We initially planned a public app where users could share their travels with **everyone**. Midway, we pivoted to focus on private sharing with **friends and family**, aligning better with meaningful, secure interactions.

⚠ 2. Saving MapBox Coordinates

Finding a way to save and get **latitude and longitude coordinates** from Mapbox while creating pins was a significant challenge. By combining our database schema with Mapbox event listeners, we were able to overcome issue.

⚠ 3. Map Filtering Functionality

Originally, we didn't plan to let users **filter pins by specific people.** After team discussions, we implemented a filter to view only your pins, **all friends' pins, or selected friends' pins**, greatly improving usability

⚠ 4. Adding Friends via Code

We designed a friend system based on **unique codes**, which required careful backend logic to prevent duplicates and self-adding. We successfully created a **friend-code-based system** with validation and error handling.

⚠ 5. Image Upload & Display Issues

Initially, uploaded images **weren't visible** due to incorrect static directory setup. We resolved it by ensuring our uploads/ path was correctly exposed via Express static middleware.

⚠ 6. No Initial Test Coverage

We didn't begin with automated testing, which slowed debugging. We later integrated **Mocha and Chai** to cover our critical API endpoints.
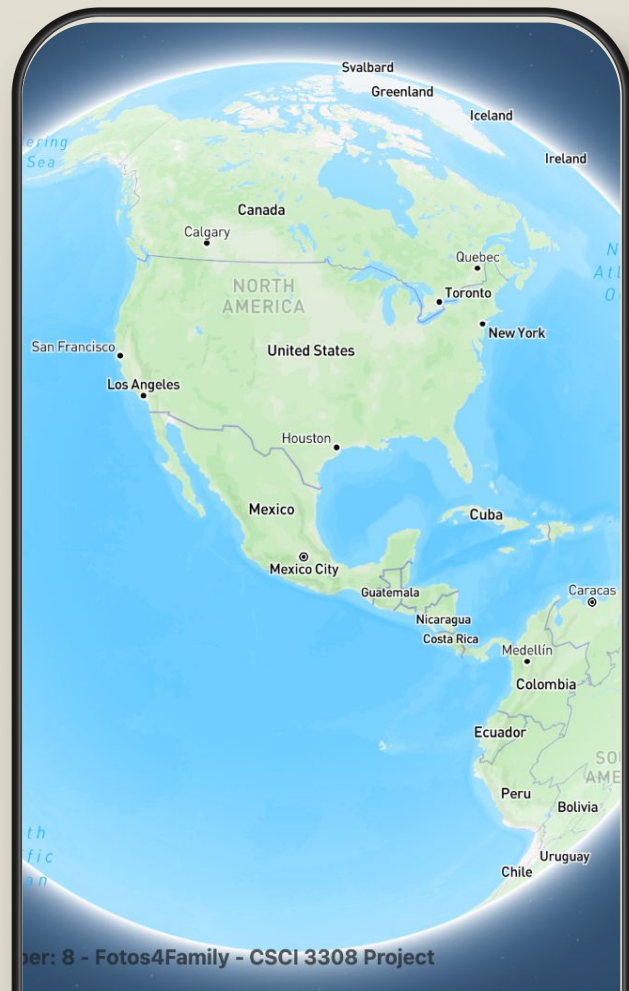
Future Scope/Enhancements

Future Scope/Enhancements

1. "Trip Mode" for Real-Time Tracking ✈️

2. Real-Time Notifications & Activity Feed 🔔

3. Support for Uploading Videos ▶️

4. Event Pins 📌

Demo your project

Fotos4Family

Link: https://youtu.be/GRCjFl1ViH4

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Thank You!

Q&A

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