

A decorative pattern of overlapping green squares and rectangles, some of which are rotated 45 degrees, creating a complex, pixelated effect. The pattern is primarily located on the right side of the slide, extending from the top right towards the bottom right.

WalletWatch

Harrie Ha, Ellie Odau, Aiden Johnson, Emir Simsek, Kishore Karthikeyan, Matt Topham



Presentation Overview

- Meet the Team
- What is our App?
- What Tools we Used
- Application Diagram
- Challenges
- The Future



Meet the Team



Matt Topham



Kishore Karthikeyan



Harrie Ha



Ellie Odau



Aiden Johnson



Emir Simsek
















Project Description/Mission

- A social budgeting web app that helps users manage expenses with accountability from friends
- Combines personal finance tracking social motivation
- Core features Transactions, budgets posts, friend system, profile customization
- Vision: Make financial wellness engaging and community-driven





Tools

Category	Tool(s) used	Purpose	Rating(★)
Project Tracker	Github Projects 	Task tracking	★★★★★
VCS Repository	Github 	Version control & collaboration	★★★★★
Database	PostgreSQL 	Stores users, posts, transactions, budgets, etc.	★★★★★
IDE	VS Code 	Coding and debugging	★★★★★
UI Tools	Handlebars, HTML, CSS, JS    	Dynamic templates & styling	★★★★★
Application Server	Node.js 	Runs backend & APIs	★★★★★
Framework	Express.js 	Routing and middleware	★★★★★
Deployment Environment	Render 	Cloud hosting & deployment	★★★★★
External API	Google maps 	Location tagging in posts	★★★★★
Testing Tool	Mocha + Chai; Postman   	API endpoint testing	★★★★★

Methods

- Project Management method: Agile Methodology
 - Scrum Master
- Project Management task tracking tool: GitHub Project Board

Meetings

- Group Meetings:
 - 4:30-5:30 PM on Monday @ Norlin (reserved study room)

Filter by keyword or by field

Ice-box4

Estimate: 16

...

contains the set of stories that are not picked up in the current sprint. These are potential stories for the project to work on in the future sprints.

group-project-013-4

#132

uploads not working on render deploy

3

deployment

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#127

like/upvote/reaction buttons

3

UI

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#128

map of campus posts

8

Location functionality

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#129

instructions page

2

Frontend

CU-CSCI3308-Fall2025/gr...

Backlog0 / 5

...

Estimate: 0

This item hasn't been started

Ready0

Estimate: 0

...

This is ready to be picked up

In progress0 / 3

...

Estimate: 0

This is actively being worked on

Blocked0 / 5

...

Estimate: 0

This item is blocked until other issues are resolved.

Done41

Estimate: 227

...

This has been completed

group-project-013-4

#133

header nav needs mobile responsive design

5

UX

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#126

add pets category or custom categories

5

frontend

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#130

clickable profile names in posts

3

frontend

CU-CSCI3308-Fall2025/gr...

group-project-013-4 #87

make sure styling is consistent across pages

3

UI

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#114

missing category ('Shopping') from add post modal

3

Frontend

CU-CSCI3308-Fall2025/gr...

group-project-013-4 #76

add a 'share this transaction'

8

UX

1- #105

CU-CSCI3308-Fall2025/gr...

group-project-013-4

#105

add a 'share this transaction'

8

UX

CU-CSCI3308-Fall2025/gr...



How it works

WalletWatch connects users, friends, and finances through a simple, cloud-hosted architecture.

1. User Interaction (Frontend)

Users access the app through their browser. Pages built with HTML, CSS, JavaScript, and Handlebars let them log in, add expenses, view posts, and connect with friends.

2. Server Logic (Application Layer)

All requests go through a secure Node.js + Express backend, which handles authentication, routes data, and enforces friend-only visibility rules.

3. Data Storage (Database Layer)

The backend reads and writes information to a PostgreSQL database – storing users, transactions, posts, and friend connections.

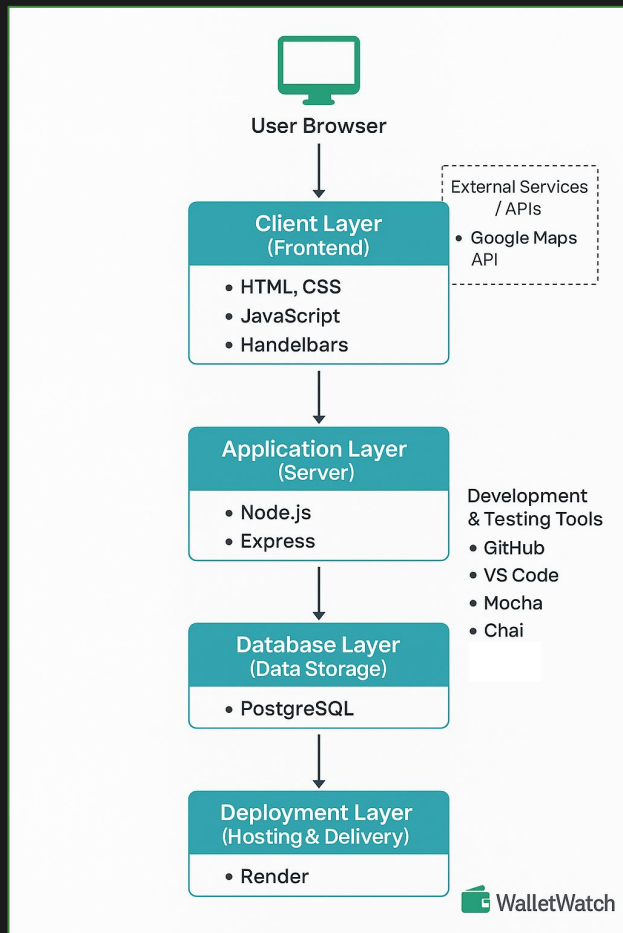
4. Hosting & Delivery (Deployment Layer)

Everything runs on Render, which automatically deploys updates and keeps the app live 24/7.

5. Integrations & Tools

External APIs like Google Maps add location tagging.

Development tools such as GitHub, VS Code, Mocha, Chai, and Github Projects to help manage, test, and track the project.



Challenges

- Organization and communication
 - Code refactoring
 - Merge conflicts
- Balancing social/gamified aspects with privacy
 - Integrating posts, friends, budgets, and transactions into a consistent backend
 - Building a friends-only feed and handling privacy, visibility, and deleted posts
 - Creating the savings-based leaderboard with complex SQL joins and calculations
 - Debugging authentication, sessions, and protected routes

Future Scope

Social Improvements:

- Upvotes, reactions, comments on posts
- Comment threads: users can reply or tag friends
- Shareable "Monthly Spending Summary" posts users can publish to their feed.
- Friend recommendations based on mutual connections or spending similarities.

Competitive/Leaderboard Gamification Improvements:

- Budget Challenges against other users, friends
- Badges/Achievements
- Seasonal competitions (e.g., "Holiday Savings Challenge").
- Leaderboard filters (weekly, monthly, category-specific).

Google Maps/Geolocation Improvements:

- Geotagged maps with a user's past transactions
- Heatmap of where the user spends the most.

Live Demo

<https://walletwatch-013-4-3zg7.onrender.com/>