MICHIGAN STATE UNIVERSITY

Beta Presentation

Remote Energy Distribution Payment Platform

The Capstone Experience

Team Caxy Interactive

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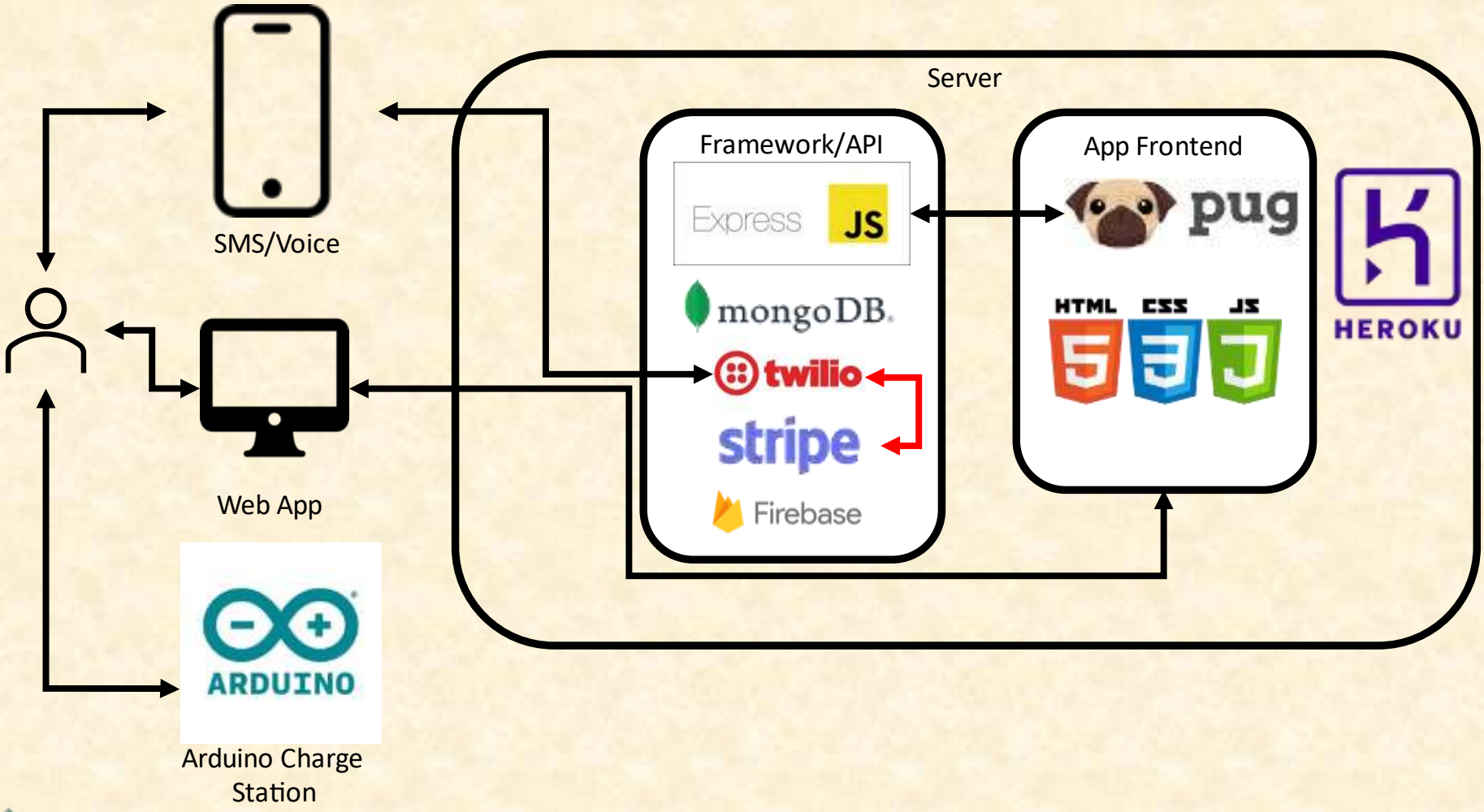
From Students…
…to Professionals

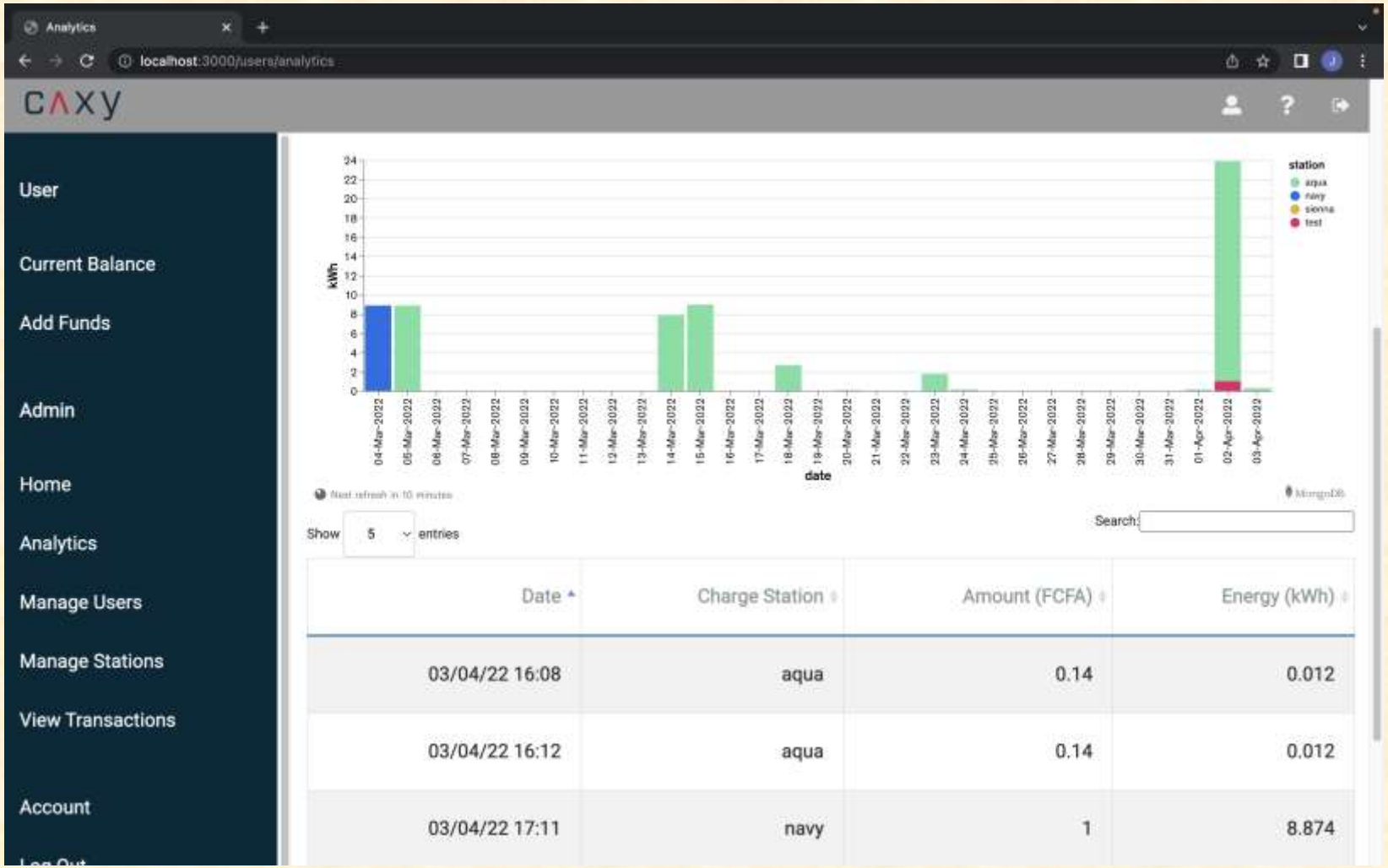
Project Overview

- The issue of grid electricity in Cameroon and other African nations.
  - 55% has access to the electrical grid.
  - Only 17% in rural areas.
- Off-grid energy exchange marketplace to allow for the access of reliable, off-grid electricity.
  - Phase 1 - Device Design and Prototype (Completed by FS21 ECE Capstone)
  - Phase 2 – SMS-based Payment System Design and Prototype

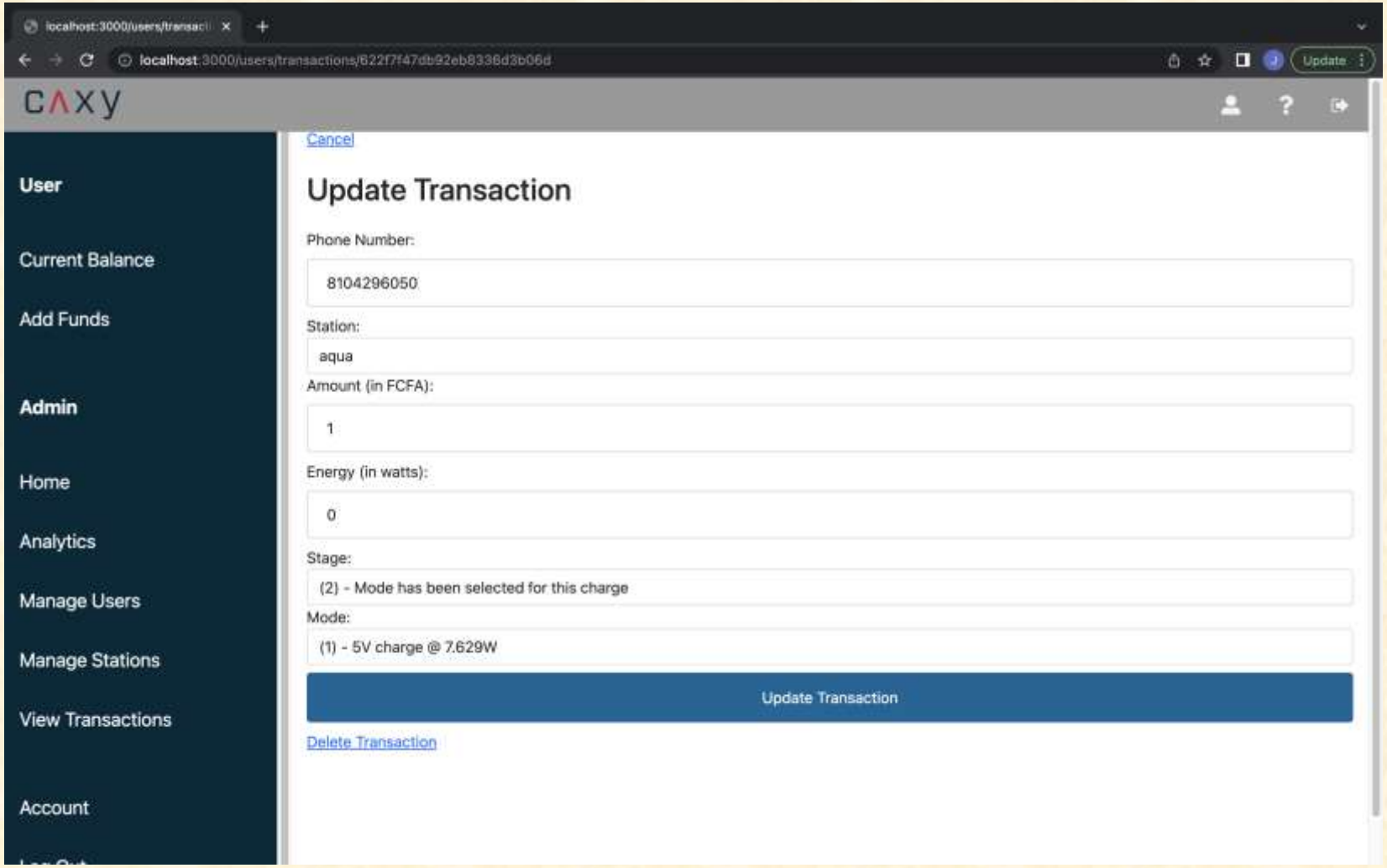
System Architecture



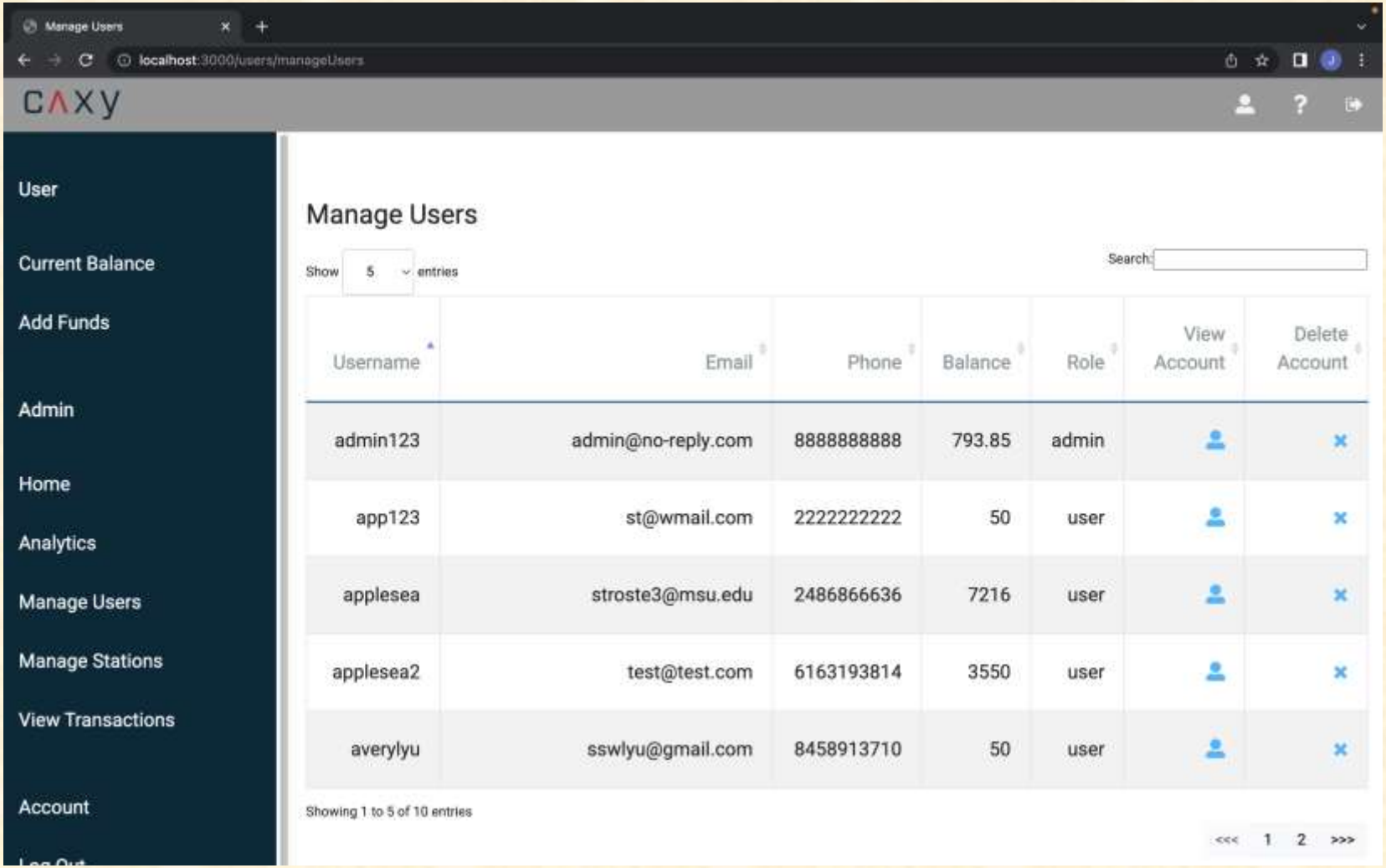
Admin Analytics



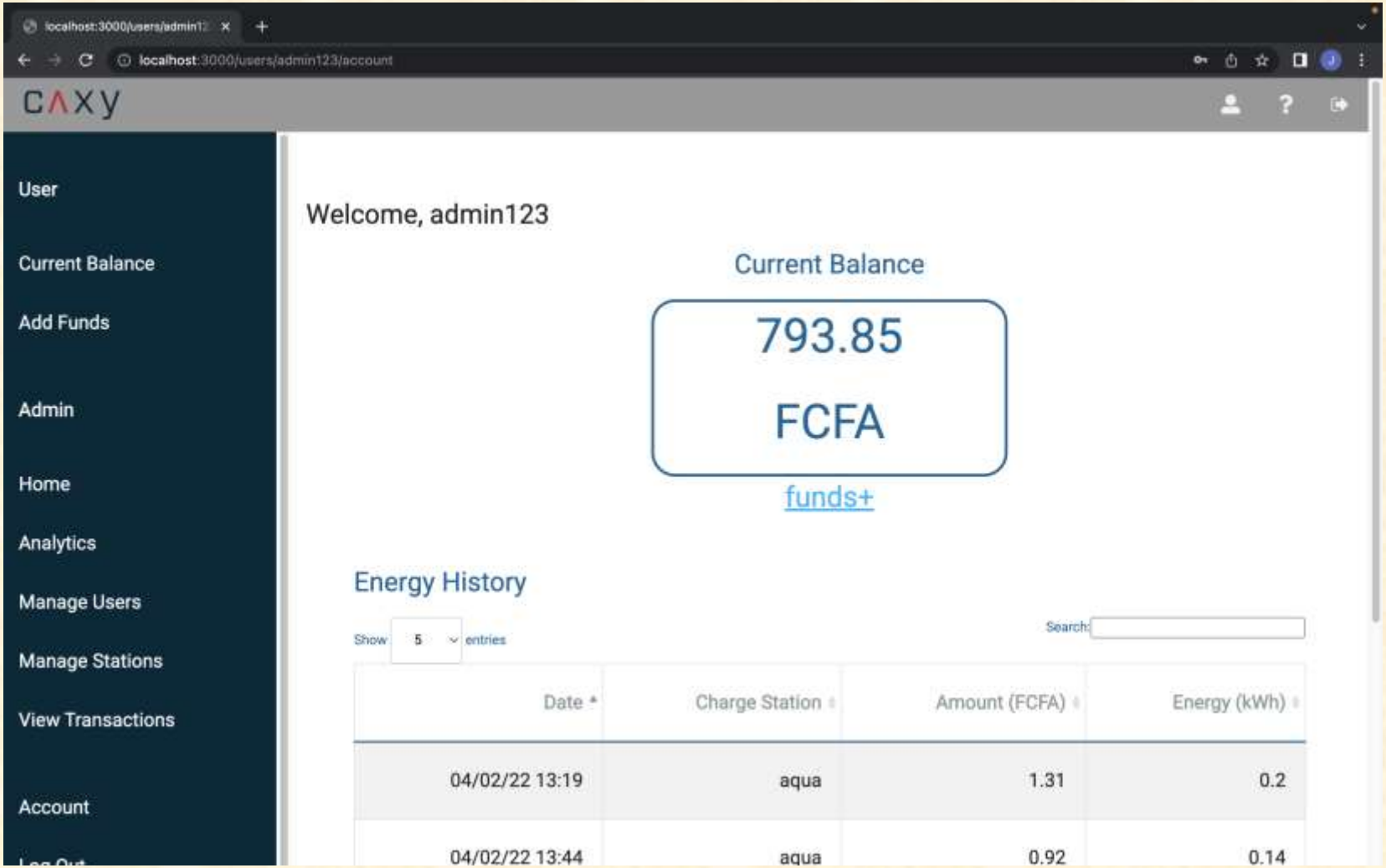
Admin Live Transactions



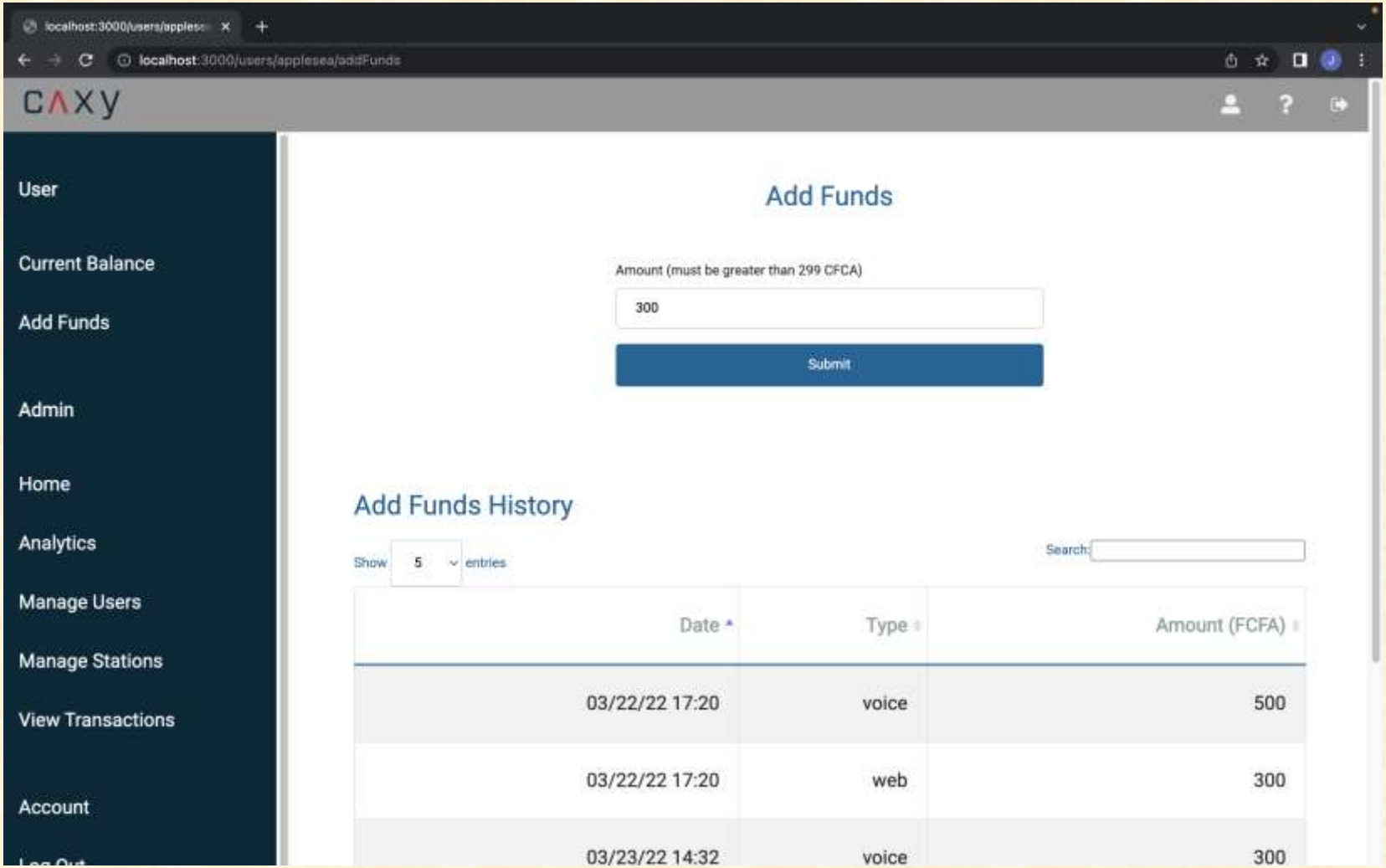
Admin Station Management



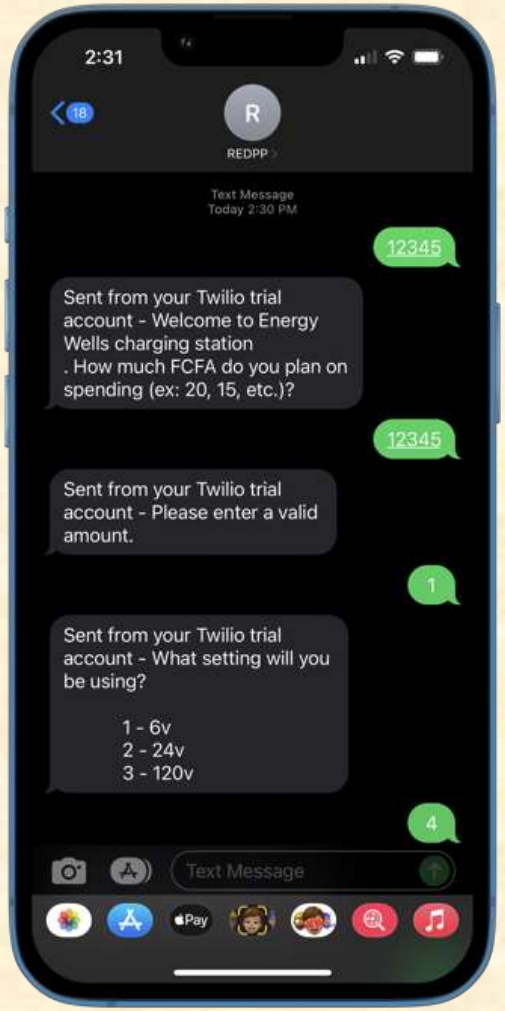
User Home

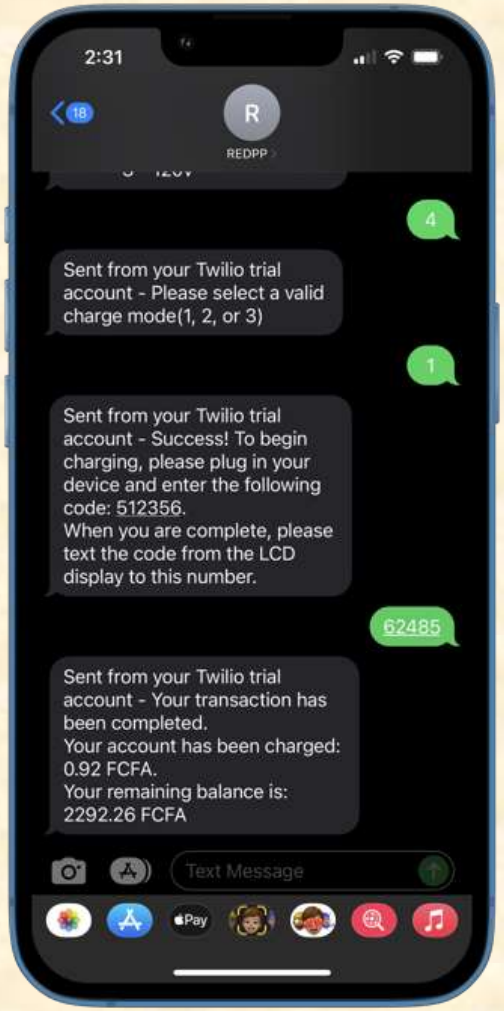

localhost:3000/users/admin123/account
CAXY
User
Current Balance
Add Funds
Admin
Home
Analytics
Manage Users
Manage Stations
View Transactions
Account
Welcome, admin123
Current Balance
793.85
FCFA
funds+
Energy History
Show 5 entries
Search:
Date
Charge Station
Amount (FCFA)
Energy (kWh)
04/02/22 13:19
aqua
1.31
0.2
04/02/22 13:44
aqua
0.92
0.14

User Fund Additions

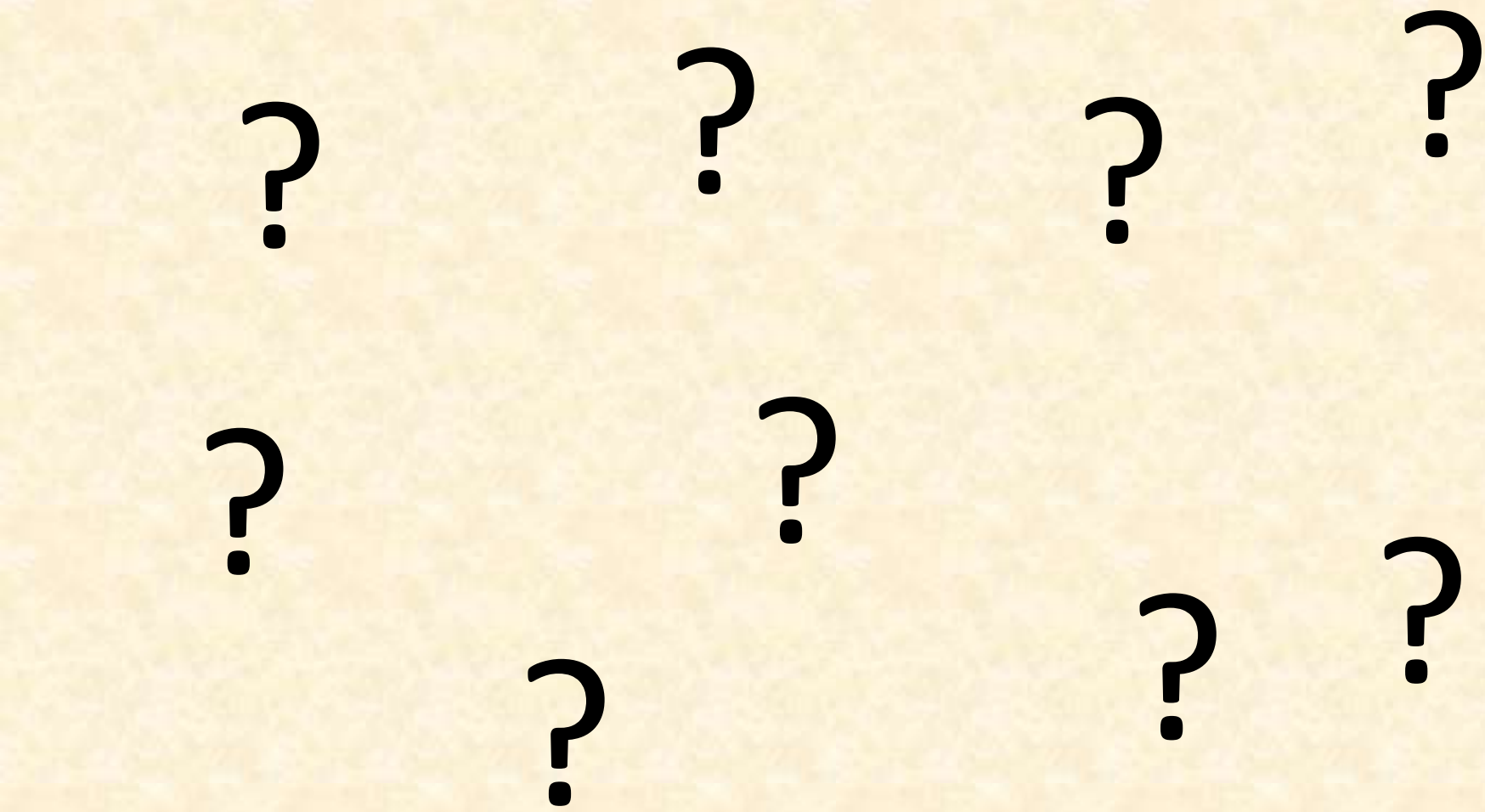


User SMS Interaction





What's left to do?

- Features
  - Feature Complete
- Stretch Goals
  - ~~Voice pay~~
  - ~~Multiple station functionality~~
  - Resolution changes for various screen sizing
- Other Tasks
  - Finalize any last routing changes
  - Add more help content
  - Finding edge cases in inputs

Questions?