

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Remote Energy Distribution Payment Platform

The Capstone Experience

Team Caxy Interactive

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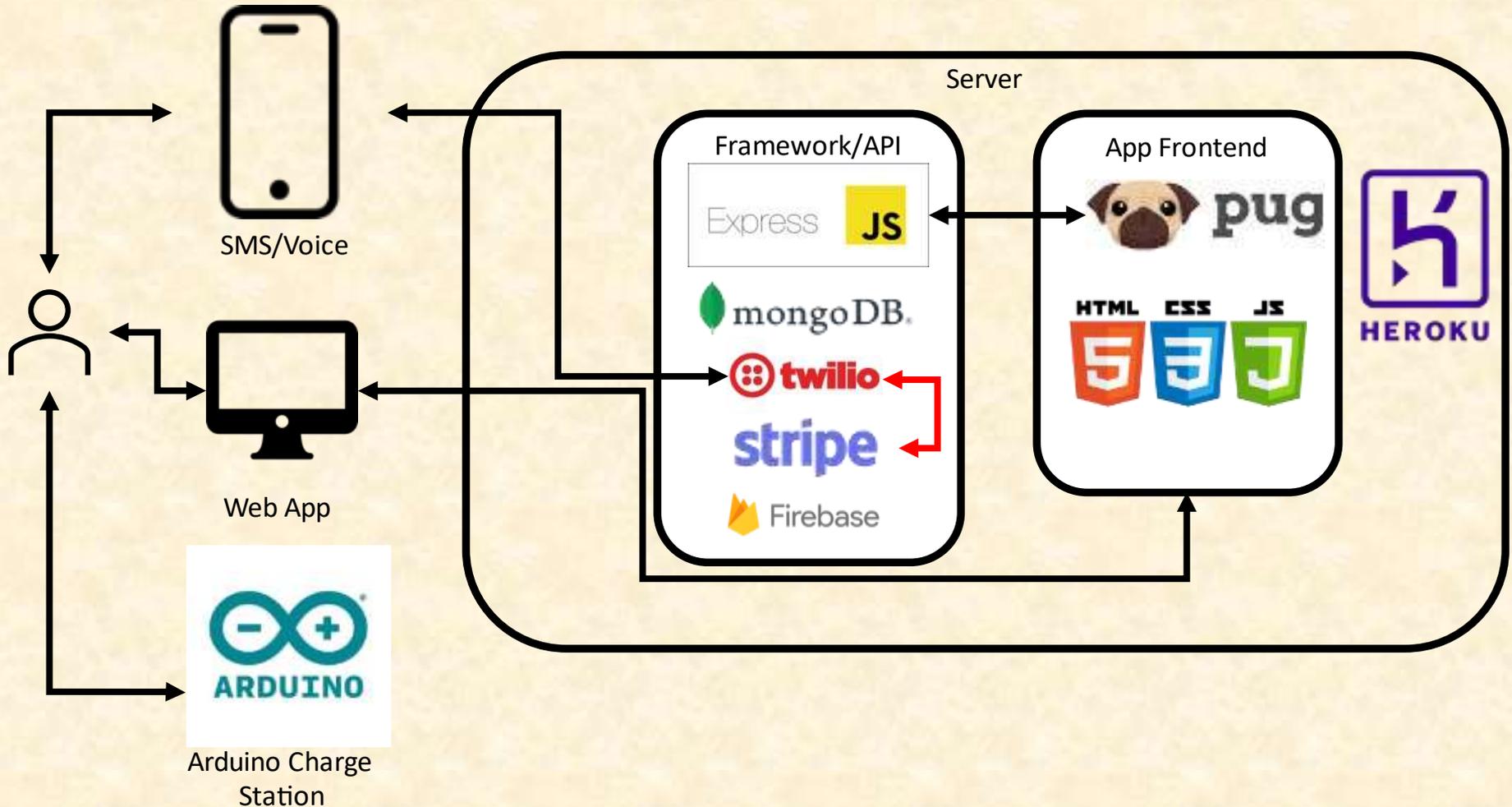
*From Students...
...to Professionals*

Project Overview

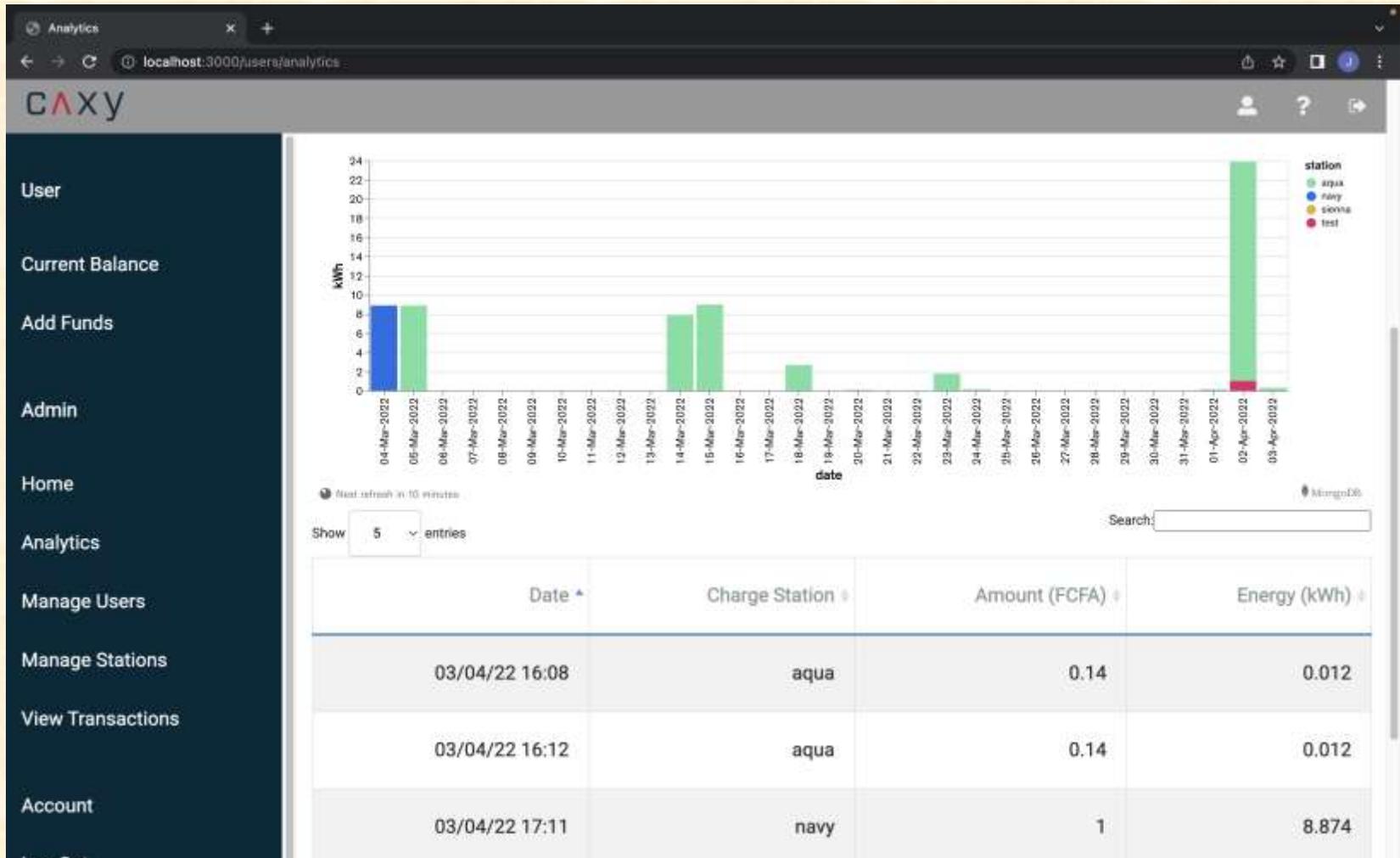
- The issue of grid electricity in Cameroon and other African nations.
 - 55% has access to the electrical grid.
 - Only 17% in rural areas.
- Off-grid energy exchange marketplace to allow for the access of reliable, off-grid electricity.
 - Phase 1 - Device Design and Prototype (Completed by FS21 ECE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



System Architecture



Admin Analytics



Admin Live Transactions

The screenshot displays the Caxy Admin interface in a web browser. The browser's address bar shows the URL `localhost:3000/users/transactions/822f7f47db92eb8336d3b06d`. The Caxy logo is visible in the top left corner of the application. A dark sidebar on the left contains navigation links: **User**, Current Balance, Add Funds, **Admin**, Home, Analytics, Manage Users, Manage Stations, View Transactions, and Account. The main content area is titled "Update Transaction" and features a "Cancel" link at the top left. The form contains the following fields:

- Phone Number:
- Station:
- Amount (in FCFA):
- Energy (in watts):
- Stage:
- Mode:

At the bottom of the form is a large blue button labeled "Update Transaction" and a link labeled "Delete Transaction".

Admin Station Management

Manage Users

Show 5 entries

Search:

Username	Email	Phone	Balance	Role	View Account	Delete Account
admin123	admin@no-reply.com	8888888888	793.85	admin		
app123	st@wmail.com	2222222222	50	user		
applesea	stoste3@msu.edu	2486866636	7216	user		
applesea2	test@test.com	6163193814	3550	user		
averylyu	sswlyu@gmail.com	8458913710	50	user		

Showing 1 to 5 of 10 entries

<<< 1 2 >>>



User Home

The screenshot shows a web browser window with the URL `localhost:3000/users/admin123/account`. The page features a dark sidebar with navigation links: User, Current Balance, Add Funds, Admin, Home, Analytics, Manage Users, Manage Stations, View Transactions, Account, and Log Out. The main content area displays a welcome message for 'admin123' and a large card showing the 'Current Balance' as 793.85 FCFA, with a link to 'funds+'. Below this is an 'Energy History' section with a search bar and a table showing the last two transactions.

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

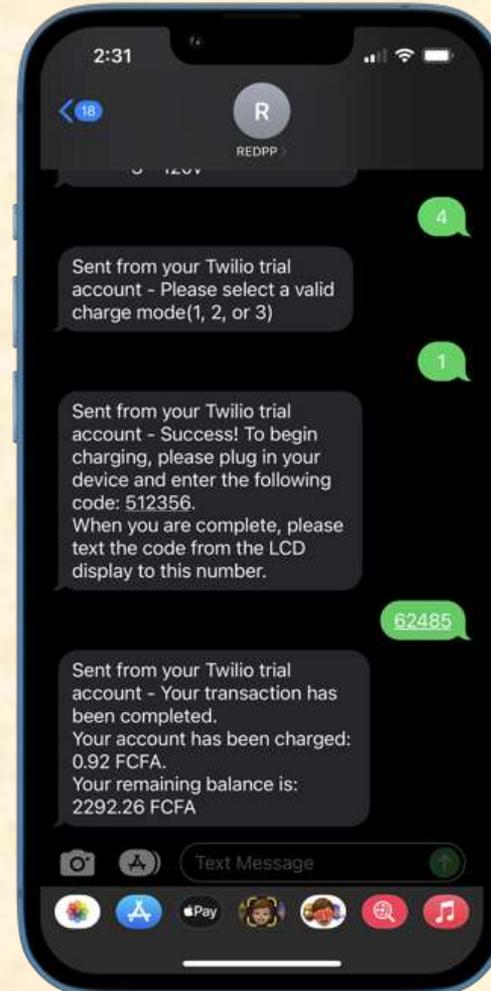
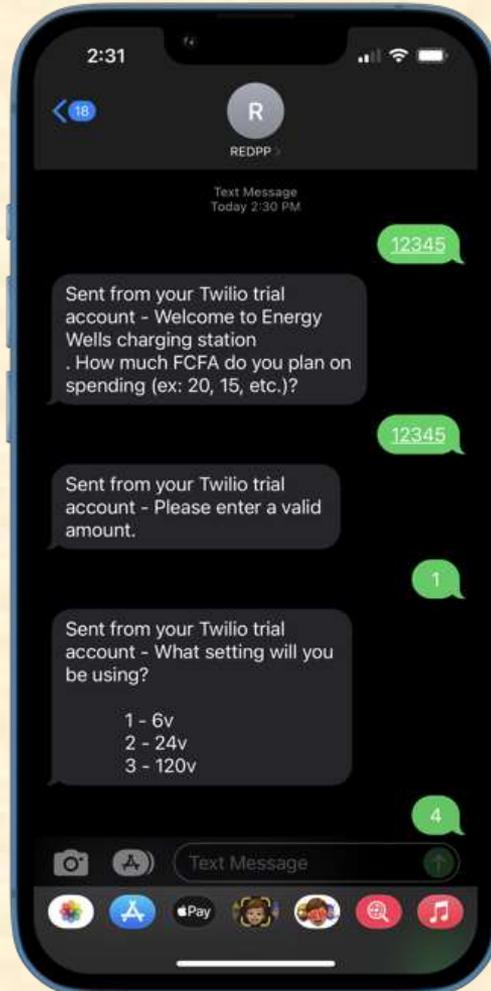
User Fund Additions

The screenshot displays the Caxy web application interface. On the left is a dark sidebar with navigation links: User, Current Balance, Add Funds, Admin, Home, Analytics, Manage Users, Manage Stations, View Transactions, and Account. The main content area is titled 'Add Funds' and features a form with a text input field containing the value '300' and a blue 'Submit' button. Above the input field is the text 'Amount (must be greater than 299 FCFA)'. Below the form is an 'Add Funds History' section. It includes a 'Show 5 entries' dropdown and a search input field. The history is presented in a table with the following data:

Date *	Type :	Amount (FCFA) :
03/22/22 17:20	voice	500
03/22/22 17:20	web	300
03/23/22 14:32	voice	300



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?

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