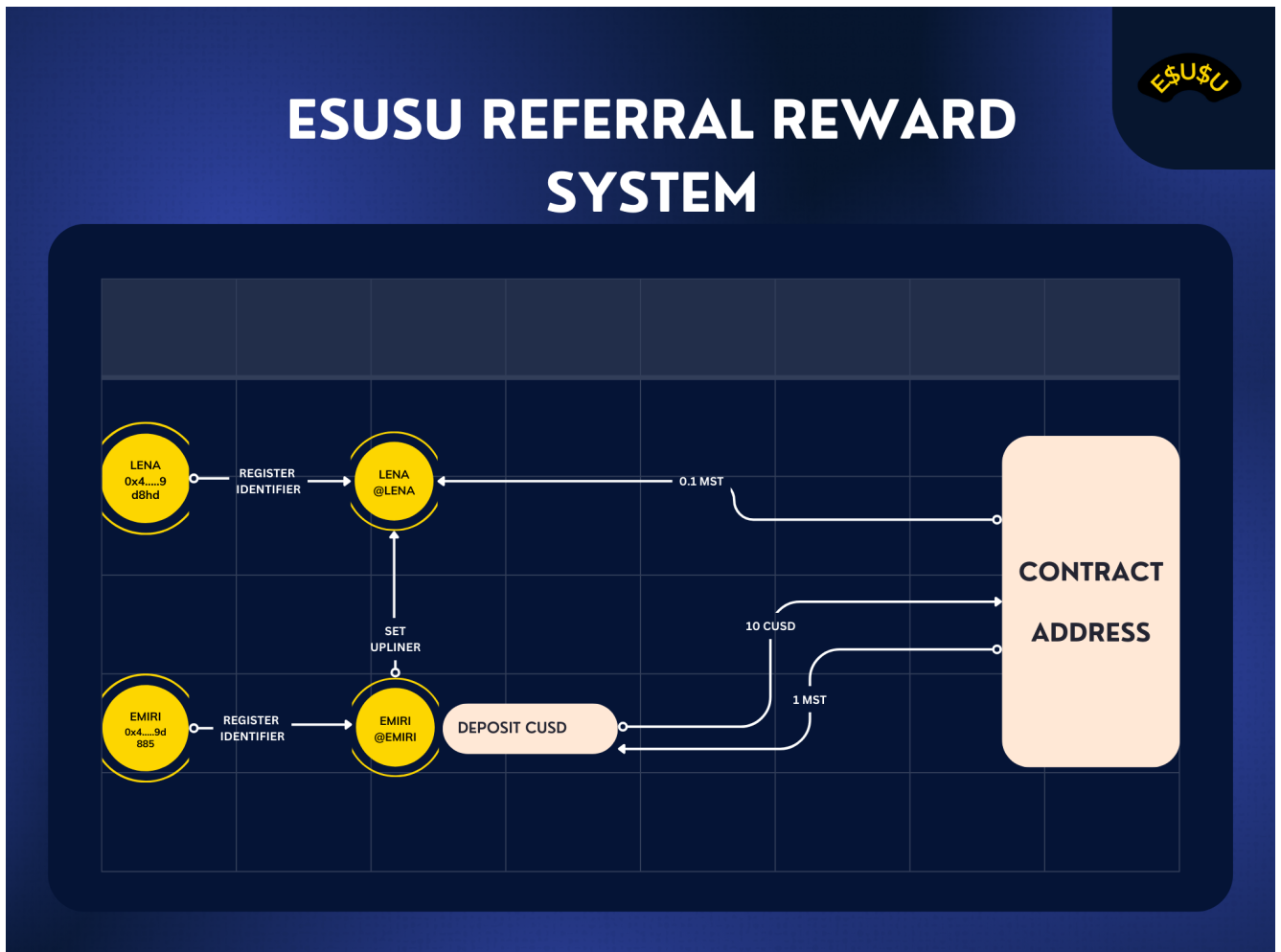# ESUSU

THIS HACKATHON

- We implemented a referral feature to reward users who tell their friends about our solutions
- This creates an `upliner` and `downliner` relationship
- When a `downliner` makes a deposit,
  - `downliner` earns `2 MST` token
  - `upliner` earns `1 MST` token as referral reward

Summary of Milestone

1. Redefining the reward structure
2. Improving UI/UX
3. Rewriting smart contracts
4. Deploying in foundry as well as verification
5. Writing test for the smart contract

6. Adding user referral reward features
7. Implementing social connect login for Twitter and GitHub

Overview

ESUSU is a decentralized application (DApp) built on the Celo Mainnet that facilitates stablecoin contributions through a collective savings model known as Esusu in many African communities. The DApp allows users to create and join campaigns, contribute funds, and track campaign details transparently on the blockchain.

The dApp is a 3 in 1 solution to solving issues related to financial inclusion and poor savings trend. the sectios are

- Esusu thrift contribution => % users joibn a contribution campaign where they pool their funds evrymonth for 5 months . For every month a unique user takes home the total contribution giving everyone access to `bulk money` which naturally the couldnt have saved up. This also elemintaes the need to borrow money for fundung big projects.
- Esusu piggy box => Funds are locked up over time so that users no longer have access to them. They earn `MST` tokens for locking up funds but loss these tokens if the decide to break the lock.
- Esusu pay bills => users can pay for their utility and also make donations to their various projects.

Technologies Used

- **Frontend**: Next.js, Tailwind CSS, Typescript
- **Backend**: Solidity, Ethereum blockchain
- **Smart Contracts**: Foundry
- **Deployment**: Alfajores(present deployment for the hackathon)
- **Contract Address**: Alfajores 0xdFa504C66e22A07f42C5616c873829cBCcee38cd
- **Tokens**: `MST` MiniSafe Token as reward for locking up funds for both depositor and the upliner who referred.

Setup Instructions

1. Clone the repository:

```
git clone https://github.com/emiridbest/esusu2.git
```

2. Install dependencies:

```
yarn install
```

3. Start the development server:

```
yarn run dev
```

4. Visit `http://localhost:3000` in your browser to view the application.

Usage

- Create an account or connect your Celo Minipay wallet.
- Go to the `site tester` in minipay
- Enter http://esusu-two.vercel.app
- **Esusu Referrers**

1. Connect your social account(GitHub fully implemented)
2. Add `upliner` by entering the `GitHub` username of the user who referred you
3. Go ahead to make a deposit

Architecture in the `react-app` folder

```
/pages includes the main application components (specifically index.tsx an
    _app.tsx includes configuration
    index.tsx is the main page of the application
/components includes components that are rendered in index.tsx
    Balance.tsx to return your `cUSD` wallet balance
    SocialProfile.tsx to return profile details of the connected user
    SocialConnectUI.tsx to signIn, signOut of sessions amd also `register`a
    TransactionList.tsx to return transaction history on `cUSD` tokens of
/SocialConnect includes helper files
    /abis hold contractABI for various socialConnect protocol
/public includes static files
/utils
    abi.ts hold smart contract's `ABI and `Address` of the `timelock` and
    esusu.ts hold `ABI and `Address` of the `thrift` feature logic
    pay.ts hold `ABI and `Address` of the `utilityBills` payment feature l
```

Contributing

Contributions are welcome! Please follow the standard GitHub flow:

1. Fork the repository
2. Create a new branch (`git checkout -b feature/<feature-name>`)

3. Make your changes

4. Commit your changes (`git commit -am 'Add new feature'`)

5. Push to the branch (`git push origin feature/<feature-name>`)

6. Create a new Pull Request

License

This project is licensed under the MIT License.

PROBLEM

Issue: Reduced access to financial services and poor savings habit

Problem 1

There has been a gradual decline in saving practices anff finacial discipline

Problem 2

High non-performing loan ratios, rising household debt across Africa.

Problem 3

Nigeria has yet 64% (of the adult population) currently un(der)banked

SOLUTION

Esusu addresses these challenges by providing a digital platform that promotes community-based savings, fosters trust, and empowers users to take control of their financial futures.

Solution 1

- Organised pooling of funds

Solution 2

- Time-locked savings

Solution 3

- Streamlines bill payment process

PRODUCT AND SERVICE

PRODUCT 1 ✅

Esusu Thrift
Contribution

PRODUCT 2 ✅

Esusu Simple
Saver

SERVICE ✅

Esusu Utility Bills
Payment

USER STORY

- Meet Nurse Chinwe, A 25 year old theatre nurse with dreams of migrating to the UK with her 4 other besties.

- With the help of the Esusu app, she was able to save up funds for her IELTS and CBT exams during her internship.
- Now face with the uphill battle to fund her travel cost and other paper work.
- She discovers the new Esusu thrift feature.
- She tells her friends about and the got interested. She onboarded them into the platform at once and the started the contribution of $500 each.
- With the contributions, Nurse Chinwe relocated to the UK successfully.
- A month later, Benita did, then Blessing and then brenda also relocated thie month.
- By next month Chinaza will be relocation with the proceeds fromn the contributions.

ROADMAP
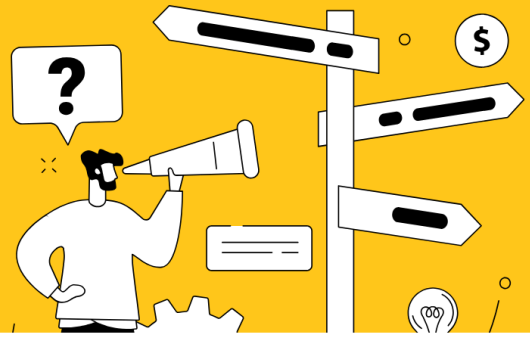
August 2024 ✓

MVP launch

September 2024 ✓

Smart Contract Audit

November 2024 ✓

Funding Round

TARGET MARKET

Target Market 1 Underserved Communities:

Individuals/communities with limited access to formal banking services.

Target Market 2 Professionals:

Individuals/communities looking tools to manage their finances

SIZE OF MARKET

650 Million

TARGET POPULATION SIZE

150 Million

CUSTOMER BASE

8.9 Billion

APPROXIMATE CAP

BUSINESS OR REVENUE MODEL

1 Transaction fees tailored to on-ramp and off-ramp activities

2 Tokenomics
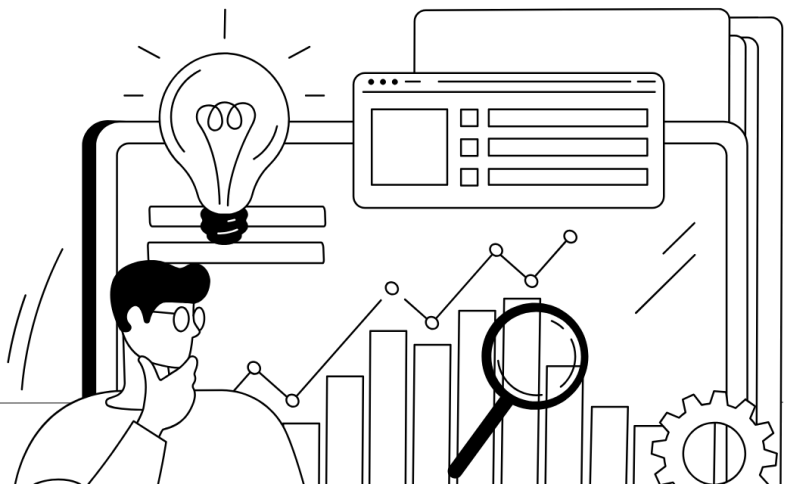
3 Penalties for breaking timeLock

COMPETITOR

- Local Cooperatives

- Cowrize

- Piggy Vest

ADVANTAGE

- Use of stable coins

- We are onchain, so more transparent insentive

- Web based on the mini pay browser so no need for app update to access new features

THANK YOU

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