Debitable - Decentralized Banking System using Radix

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Problem Statement

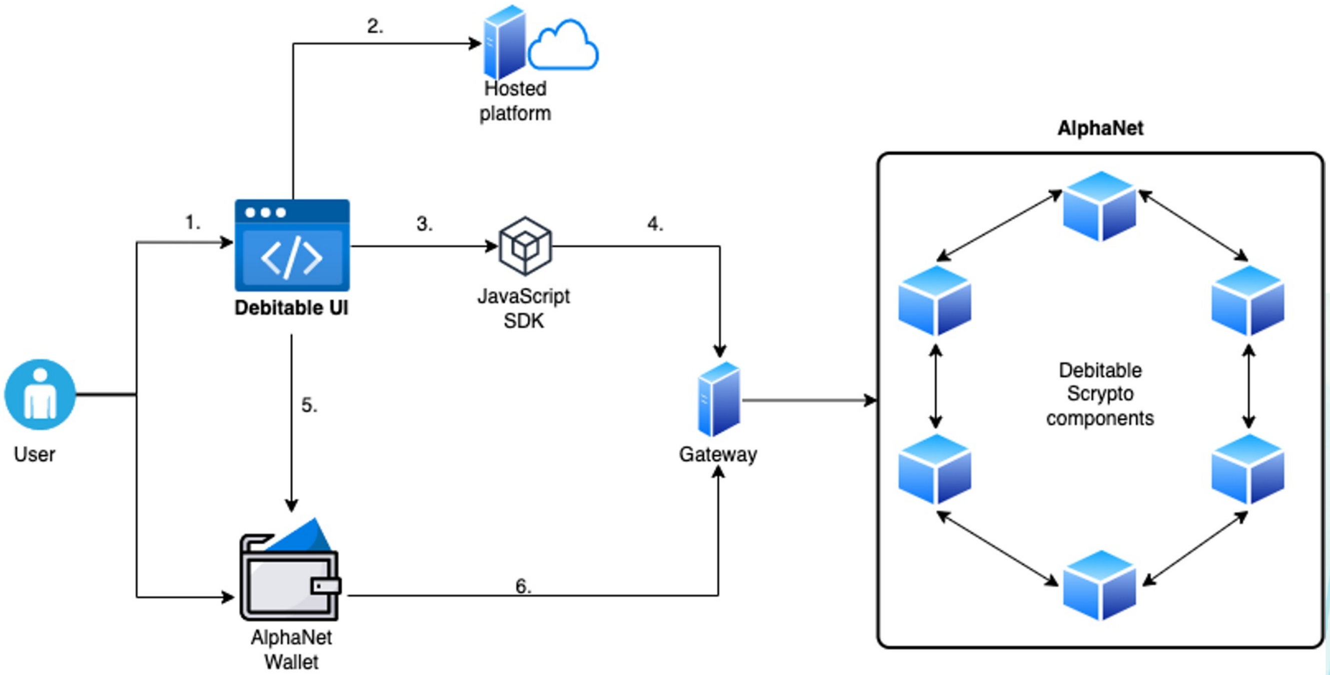
- Shortcomings of Traditional banking systems:
  - Centralized system methodology
  - Inefficient
  - Vulnerable
  - Non-transparent

- **Decentralized Finance (DeFi)** overcomes these shortcomings.

Debitable

- Full-stack **DeFi** banking web application
- **AggieCoin** AC
- Allows users to:
  - View balance
  - Deposit / withdraw funds
  - Borrow / lend ACs

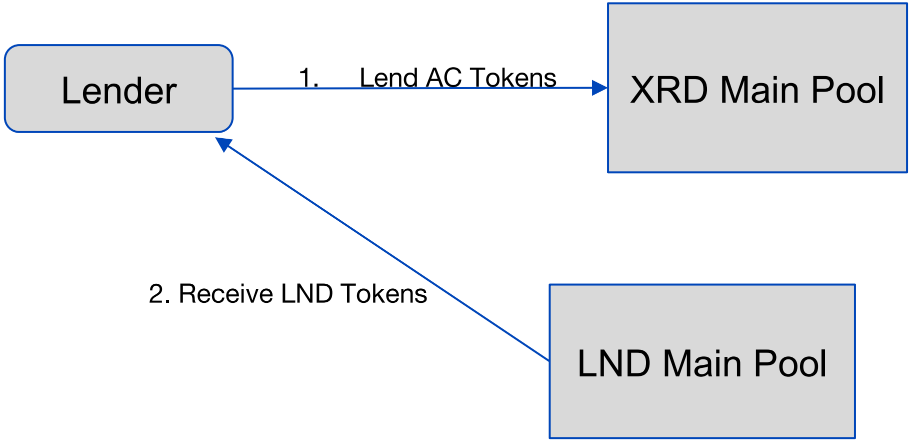
System Architecture



Lending & Borrowing

- Accept lending from lenders
- Allow lenders to get back along with rewards
- Rules preventing debtors from defaulting
- Allow for borrowing non-collateral loans
- Allow borrowers to repay the loan
- No multiple loans at the same time
- Loyalty levels for completing multiple lending and borrowing.

Lending & Borrowing



Lender

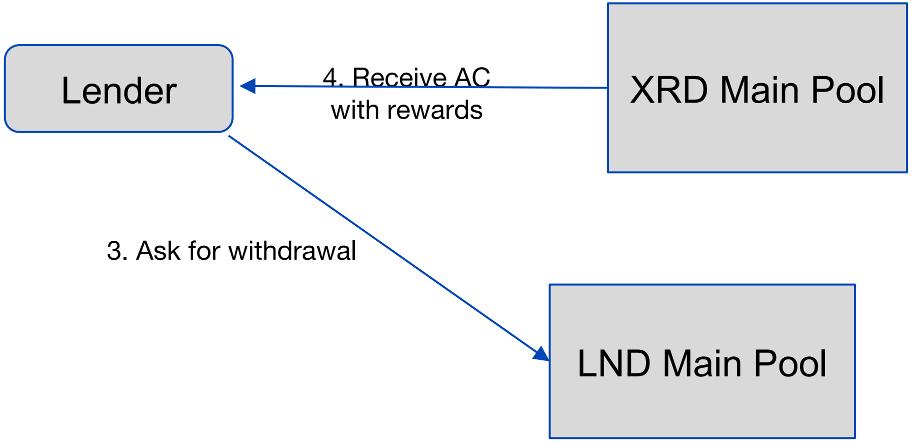
1. Lend AC Tokens

XRD Main Pool

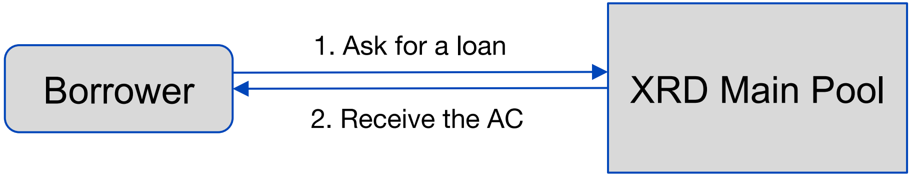
2. Receive LND Tokens

LND Main Pool

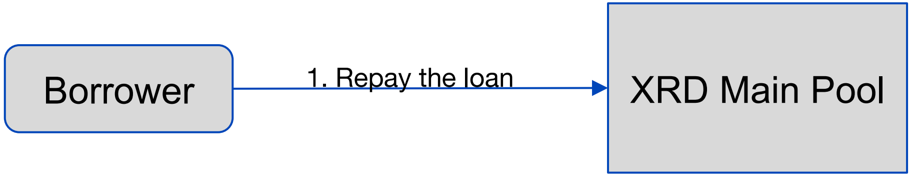
Lending & Borrowing



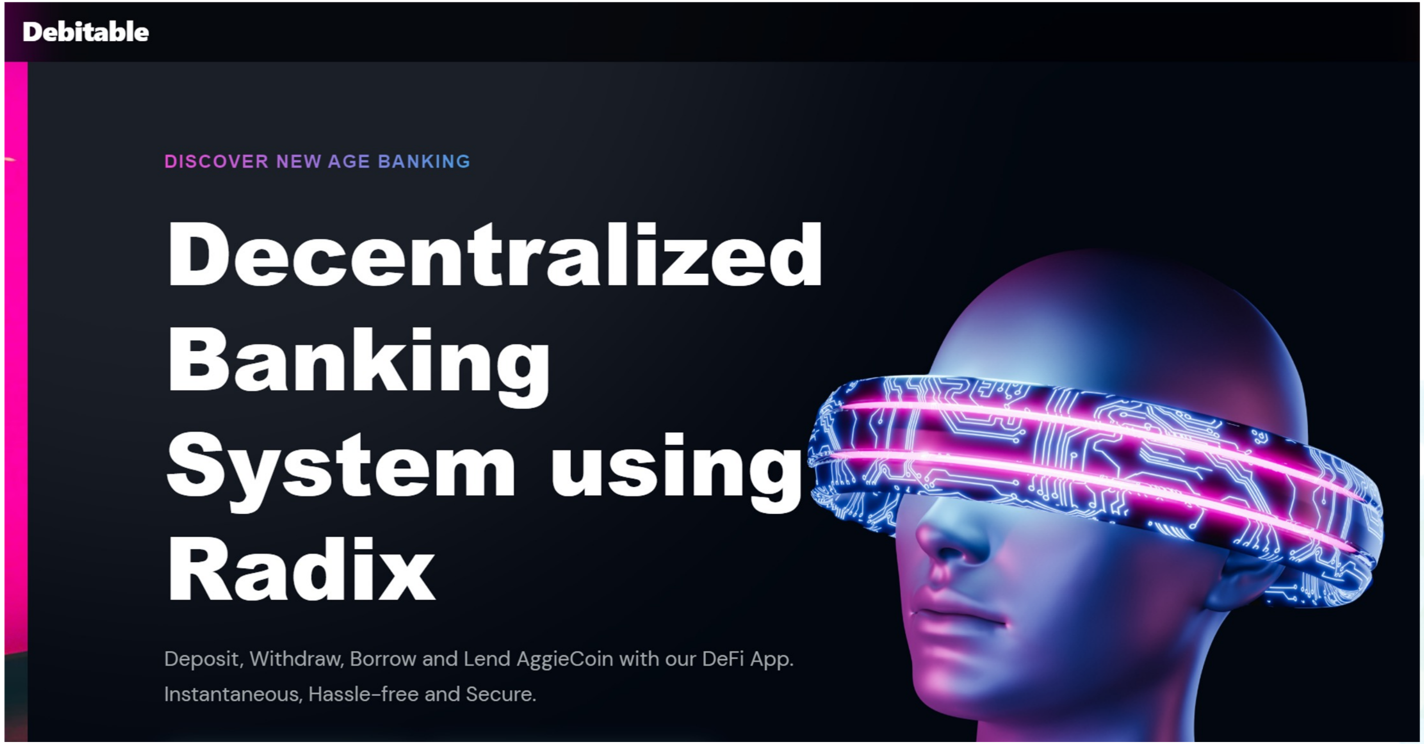
Lending & Borrowing



Lending & Borrowing



Demo



Debitable

DISCOVER NEW AGE BANKING

Decentralized Banking System using Radix

Deposit, Withdraw, Borrow and Lend AggieCoin with our DeFi App. Instantaneous, Hassle-free and Secure.

Tech Stack Used

Radix

- Smart contract created using Scrypto (Programming language - Rust)
- FrontEnd - HTML, CSS, JavaScript, jQuery
- Blockchain connected with frontend using AlphaNet (TypeScript)
- Dependencies/Bundles handled using Snowpack in npm

Tech Stack Used (cont)

Ethereum

- Smart contract created using Solidity
- For test-net, using Ganache + Truffle
- FrontEnd - HTML, CSS, JavaScript, jQuery
- Blockchain connected with frontend using JavaScript (Web3.js)
- Dependencies/Bundles handled using Snowpack in npm

Comparison

Radix	Ethereum
LOC: ~720	LOC: ~2000
Language: Scrypto (Rust based)	Language: Solidity
Asset Oriented Programming (much easier to understand for someone familiar with OOP)	Implementation in Solidity is harder to maintain the code base due to many dependencies and libraries.
Supports composition of transactions through manifest	Doesn’t support composition of transactions.

Upcoming features for v2.0

- OAuth 2.0 mechanism for secure users' Authentication verification
- Lending and Borrowing mechanisms to be integrated into the frontend for a full fledged working prototype.
- Introduce real world data (time and dynamic interest rates)
- Add session management for consistency.
- Compose transactions using manifest.

Find our App live here

https://debitable.org/

Q&A

THANK YOU!