

Decentralized Crypto Loan System

Introduction

We developed a platform for cryptocurrency holders to facilitate a decentralized finance platform that works akin to crypto loan service. This system is based on the foundation of a digital money infrastructure. Blockchain is the technology driving it.

Very broadly speaking, cryptocurrency can serve as collateral for loans, very similar to assets like stocks and houses. And like any other secured loan, a crypto loan is repaid with interest over a fixed term. Typically, the loan amount is a percentage of the value of the cryptocurrency that is pledged as collateral.

The client for this project sought to build a decentralized finance solution that works innovatively with certain conditions and subtleties.

Client Details

Name: Confidential | **Industry:** Finance | **Location:** Canada

Technologies

Cryptocurrency : BTC, ETH, USDC, USDT

Backend: Node.js, Express.js, Typescript, MySQL, Redis

Frontend: React.js, Redux, Typescript

Web3 library: Web3.js

Other service & libraries : Sumsb, Alchemy, GetBlock, CoinGecko, CryptoCompare

Infrastructure & Other Tools: Terraform, AWS, Cloudflare

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Project Description

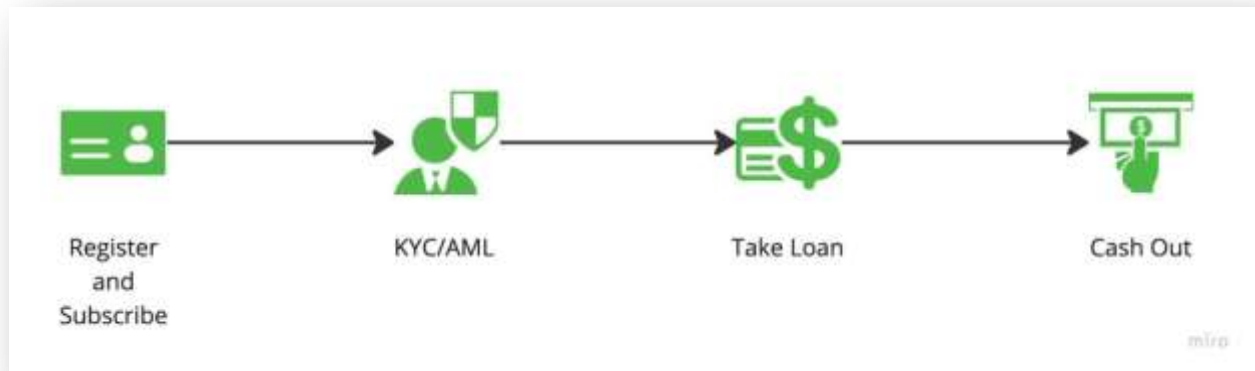
This crypto loan system functions under the features of a digital asset which is based on algorithmic finance. The approach offers both predictability and value-growth. The process is straightforward and uncomplicated. It starts with a user depositing some cryptocurrency (e.g., ETH, BTC, USDC and USDT) into the system and purchasing in exchange a stable digital asset. The user is then awarded a certain percentage of the crypto deposited as loan. Meanwhile, the purchased digital asset is locked into the system for 1 year, which is the loan term. At the end of the term, the amount of crypto that the user received at the time of applying for the loan gets deducted from the user's asset balance. Also, there is a service fee of 25% charged of the value- increase of the asset. The user is then given access to the remaining digital asset balance to cash out.

Salient Features:

- 100% returns (minus fees) of user's crypto purchase
- KYC/AML
- Crypto-based membership plan
- Deposit feature for ETH, BTC, USDC & USDT
- Withdraw feature for ETH, BTC, USDC & USDT
- Secure transaction signer
- Indexing service to track ETH transactions
- Indexing service to track BTC transactions
- Indexing service to track USDC and USDT transactions
- Dashboard to easily manage deposit and withdraw

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The Process

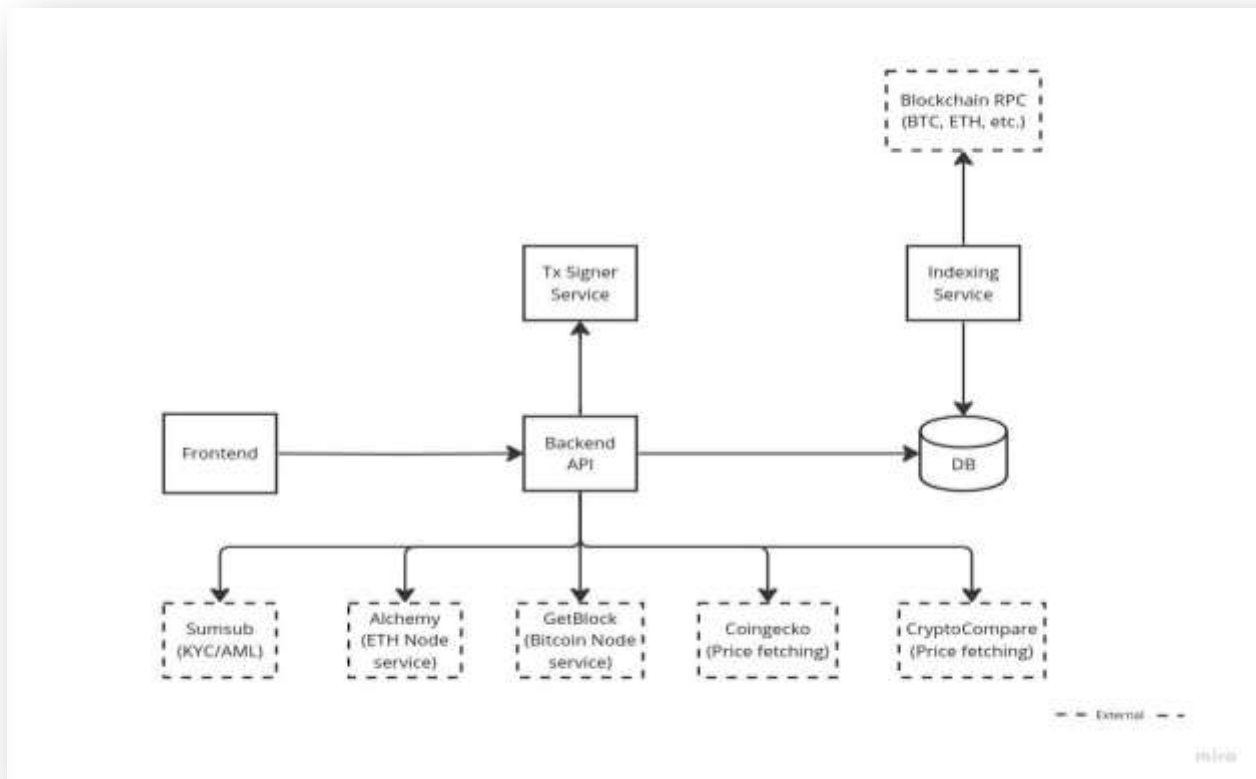


Here are the steps involved in the process:

1. Register yourself
2. Complete the KYC
3. Take membership
4. Deposit crypto to take loan
5. Take loan
6. Withdraw the principal amount of loan
7. Wait for crypto term over
8. Enjoy with the interest funds

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Architecture Diagram



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Screenshots

DEPOSIT MENU

SELECT CRYPTO >

GENERATE/CHOOSE ADDRESS >

**Please send only ETH to this address. After your deposit confirmation, your balance will be updated.*

COPY DEPOSIT ADDRESS

WITHDRAW MENU

SELECT CRYPTO >

ADD/CHOOSE ADDRESS >

ENTER AMOUNT >

SUBMIT

TRANSACTIONS (TX)

TX ID	Amount	Status	Type	Date
0x16...	0.15	Pending	W	27/01/2023
0x85...	0.08	Success	D	27/01/2023
0x98...	0.05	Success	W	26/01/2023
0x1b...	0.1	Fail	D	26/01/2023
0x1e...	0.1	Success	W	26/01/2023
0x87...	0.05	Success	W	23/01/2023
0x21...	0.3	Fail	D	21/01/2023
0x1d...	0.3	Success	W	20/01/2023
0x75...	.04	Success	D	20/01/2023
0xd4...	0.1	Success	W	20/01/2023

D= Deposit W= Withdraw B= Buy S= Sell

CRYPTO ADDRESSES

DEPOSIT	Address	Balance
ETH	abeccg3gsr6hkab...	12.30...
EOS	bnhaub423bfairn...	0
USDT	oquhb5oubn2wo...	0
USDC	nvx234blsd7ghnv...	0
BTC	7dmaweugndi7m...	0

WITHDRAW	Address	Alias
ETH	abeccg3gs...	John ETH
EOS	bnhaub423...	N/A
USDT	oquhb5oub...	Jane USDT
USDC	nvx234blsd...	N/A
BTC	7dmaweug...	Kids BTC

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