

Recycler

Municipality

Shop



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Shop



Eco Coin

Abstract

This independent research project focuses on the development of a green blockchain coin(token). The aim is to create an environmentally friendly digital currency that can be earned by participating in recycling programs, and will encourage support of local businesses.

The concept of the green blockchain coin is based on a decentralized platform that incentivizes individuals to recycle bottles. Participants will receive digital credits for each bottle they recycle. These credits can then be exchanged for goods and services only at small and local businesses.

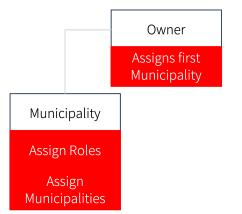
Besides the obvious positive ecological effect, the blockchain will run on a platform implementing the Proof Of Stake consensus protocol rather than the energy-consuming Proof Of Work agreement protocol.

To develop this green blockchain coin, several tools will be required: A strong understanding of blockchain technology will be necessary, as well as programming skills to develop the smart contract. I will build the solution in an Ethereum environment, in which the smart contracts will be developed in Solidity and the application in Python. Additionally, knowledge of sustainable practices and recycling programs will be essential to ensure the coin's success.

The use case for the green blockchain coin is to encourage people to recycle more by providing a financial incentive. This will reduce waste and increase sustainability and provide a new way for individuals to earn money while helping the environment.

In conclusion, the green blockchain coin is a promising project that utilizes blockchain technology and sustainable practices to incentivize recycling. The project requires a combination of technical knowledge and environmental awareness to develop a platform that can significantly impact the environment and society.





Recycler Earn Tokens

Shop

Receive Tokens

Transfer Tokens

Redeem Tokens

at Machine

Mint & Burn Tokens Approve Bottles Deposition Approve Tokens Redemption

Machine

Abstract Owner deploys token Genesis Municipali... Genesis Municipality. Recyclers registers Shop registers to re.. Recycler spends token.. Verified Trans Recycler's wallet cr. Shop's wallet created Tokens transferred fr... \$hop redeems tokens a.. Recycler deposit bot.. Scanning machines Deposit Verificati. Machine approves transa. 1 bottle =... Recycler receives Ec.. Cash payed and redeem.

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Recycler

Municipality

Shop

Register

Assign Municipality

Register

Deposit

Register Machine

Redeem

Spend

Approve Shop



Recycler

Municipality

Shop

Register

Deposit

Spend

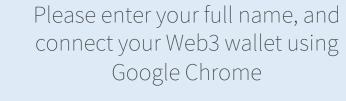


Recycler

Municipality

Shop

Register





Connect Wallet

Full Name

Register



Recycler

Municipality

Shop

Deposit

Please enter the ID of the correct exchange machine you wish to deposit your bottles.

Machine ID

Amount of Bottles

Deposit



Recycler

Municipality

Shop

Zip Code

Businesses in 70535:

Café Mosaic – 1

Ruby's Café – 2

Nick's on $2^{nd} - 3$

The Gentleman's

Barbershop – 4

Reventè – 5

Gossip - 6

Spend

Shop ID

Tokens Amount

Spend

Enter the ID of the shop you wish to spend your tokens, and the amount of tokens needed.



Recycler

Municipality

Shop

Assign Municipality

> Register Machine

Approve Shop



Recycler

Municipality

Shop

Assign Municipality



Connect Wallet

Municipality
Wallet Address

Municipality Zip Code

Assign Municipality Please enter the wallet's address of the new municipality, and its zip code.



Recycler

Municipality

Shop

Register Machine

> Please enter the wallet's address of the new machine, and its zip code.

Machine Wallet Address

Machine Zip Code

Register Machine



Recycler

Municipality

Shop

Approve Shop Please enter the ID of the shop as provided to you, and approve / deny the shop's request.

Shop ID

Approve / Deny

Approve Shop



Recycler

Municipality

Shop

Register

Redeem



Recycler

Municipality

Shop

Register



Connect Wallet

Shop's Name

Shop's Type

Shop's Zip Code

Request Registration Enter the shop's name, type (coffee/clothing/restaurant/etc..) and zip code. Please note, a municipality's approval of the registration is **required!**



Recycler

Municipality

Shop

Redeem

Please enter the exchange machine's ID you wish to redeem with, your CashApp's username to receive real funds, and the amount of tokens you wish to redeem.

Machine ID

CashApp Username

Tokens Amount

Redeem