

HD WHALE WALLET

Blockchain and Cryptocurrencies Project



[GITHUB Repository](#)



[Website](#)

Students

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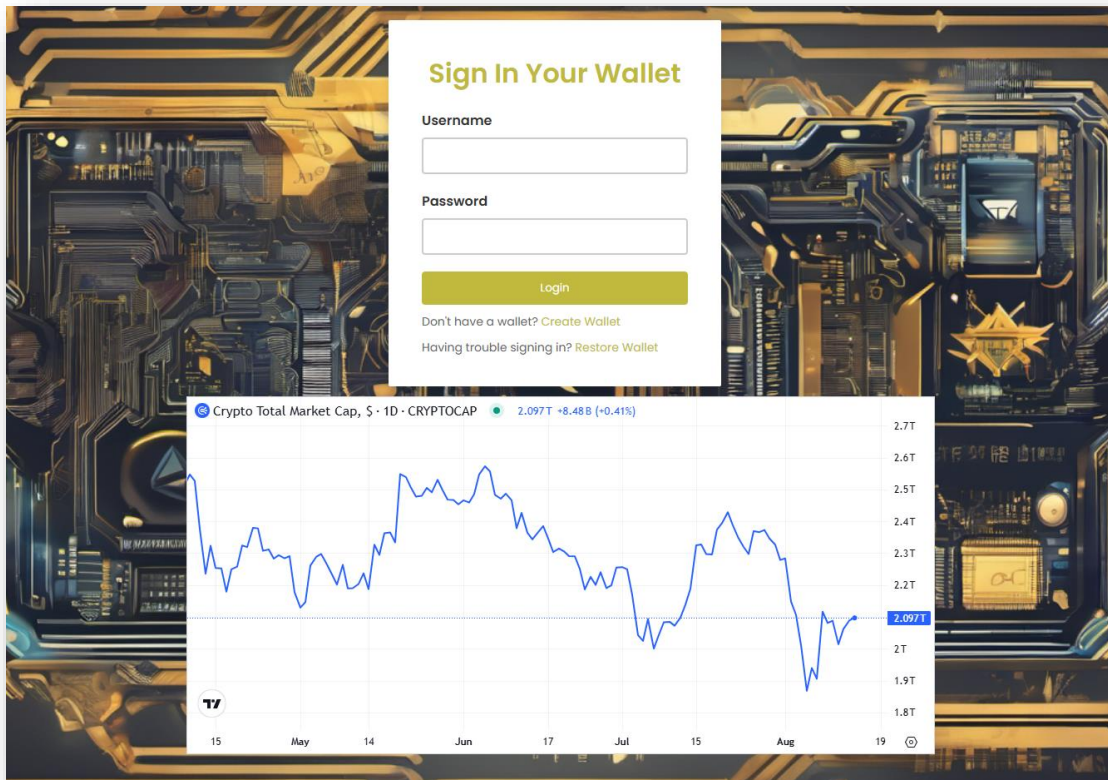
Majd Zbedat - 314744822

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1. Sign-In

The user is required to log in to the system via the Login.HTML page. If the user already has a wallet, they should use this to **sign in**. Otherwise, they should proceed to the registration page to **create a new wallet**.



Furthermore, users have the option to review a graph of the crypto market cap, ascertain the size of the market, and become motivated to start using the wallet.



2. Create New Wallet

If the user does not have a wallet, they may click on the 'Create wallet' option to select a username and password for their new wallet.

NOTE: We created a new wallet, but other wallet was used to simulate the functionality of other features, It is possible that the address and user name displayed may differ from those originally provided.

Create a New Wallet

Username
Habib

Password
.....

Password strength: Strong

Create Wallet

Already Signed Up? [Sign In](#)

[Open Wallet](#)

Username: Habib
Account Address: 0x5839e333e3330250541940fbcc76bac0510094b4
shrimp aunt suffer stage trust below slice boring deliver wine toy live

Users can check if their password is strong enough

Upon completion of the sign-up process, users will be provided with a new account address, which will enable them to receive currencies. Additionally, users will be issued a 12-word phrase, which can be used to restore their wallets if they forget their passwords. It is imperative that users retain this phrase, as it will be required for wallet restoration.

Username: Habib

Account Address: 0x5839e333e3330250541940fbcc76bac0510094b4

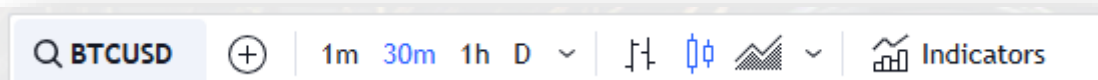
shrimp aunt suffer stage trust below slice boring deliver wine toy live

3. Profile Page

Once the user has successfully logged in, they will be able to view their profile page, which will display their name, wallet address, ETH and AVAX amounts, and their respective prices. Additionally, the user will have the option to enter the TradingView graph to monitor any currencies they wish to.

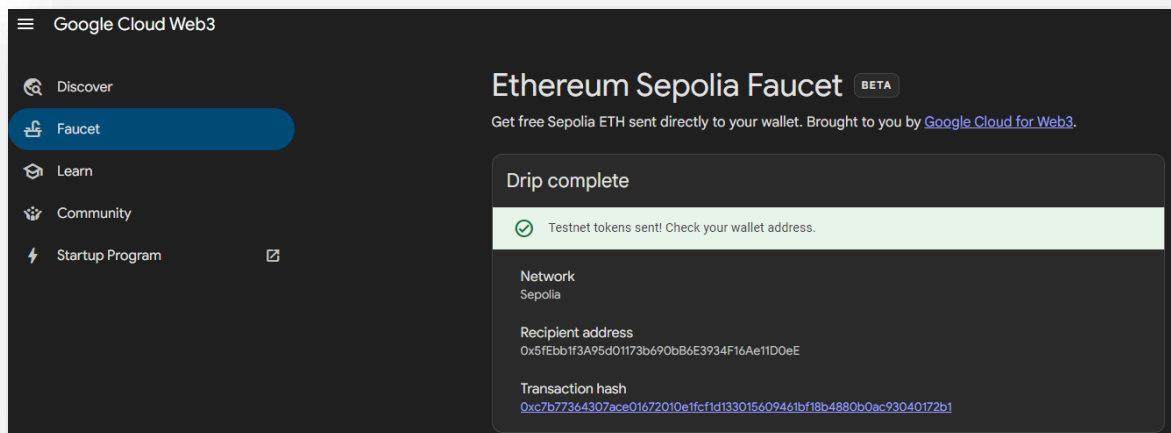


The user can check any currencies they wish, change the timeframe, and apply indicators to the graph.

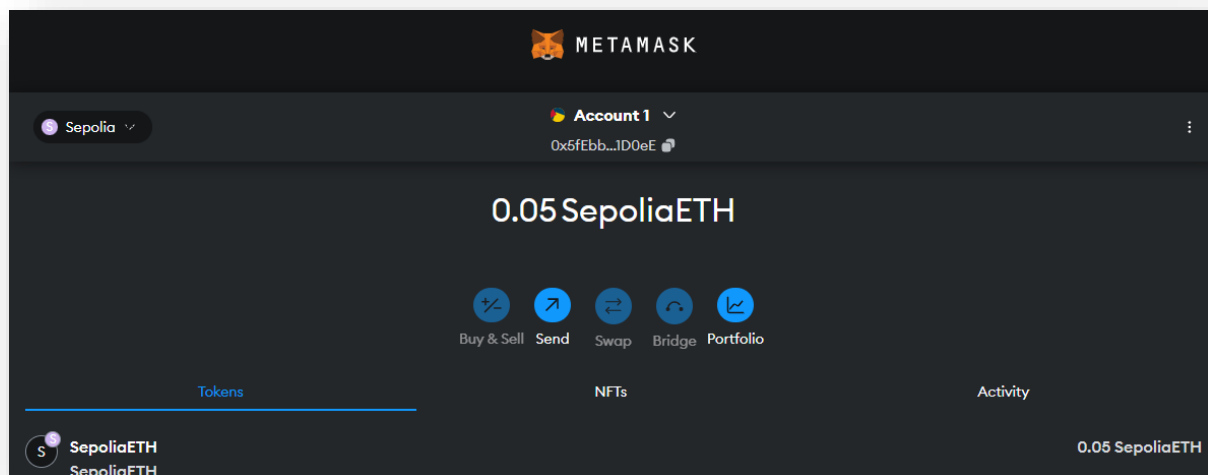


4. Sending and Receiving Coins

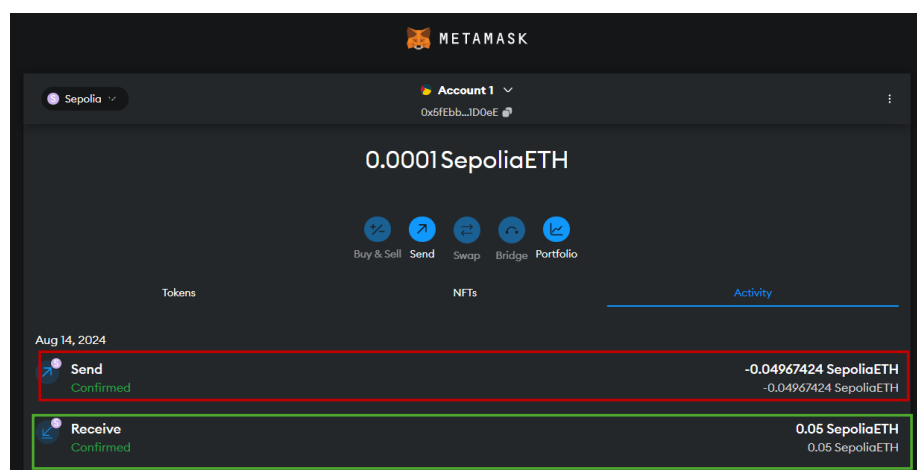
To simulate the transfer of coins from and to the wallet, we utilised [Google Cloud Web3](#) to obtain some test-net coins on the Ethereum Sepolia test-net.



0.05 ETH has been transferred to the Metamask wallet.



Subsequently, the ETH was transferred to the user's wallet, using the address provided upon registration.



The transaction was completed successfully, and our account now shows 0.05 ETH.



Now we new account is now being opened with the intention of transferring coins to it.

The screenshot shows the 'Create a New Wallet' form. It includes a 'Username' field with the value 'majd' and a 'Password' field with four dots. A green 'Create Wallet' button is positioned below the password field. Below the button, there is a link 'Already Signed Up? Sign In' and a green 'Open Wallet' button. At the bottom, the form displays the 'Username: majd' and the 'Account Address: 0xfdc3a3fa58002235d5f87ad7bee6d4db0ac1c12c'. A mnemonic phrase is also shown: 'suit gravity position alpha very anger only small outer want educate mango'.

We resume our examination of the primary account and proceed to the page designated for the transmission of coins.

The screenshot shows a 'Send Coins' form with the following fields and annotations:

- Recipient's Wallet ID:** A text input field containing the address `0xfdc3a3fa58002235d5f87ad7bee6d4db0ac1c12c`. A red box highlights this address, with an arrow pointing to a callout box stating: "The user address to which the tokens are to be dispatched."
- Amount:** A text input field containing the value `0.02`.
- Coin:** A text input field containing the value `Ethereum (ETH)`.
- Send Coins:** A green button labeled "Send Coins".
- Transaction Confirmation:** A green-bordered box containing the text: "The transaction was successfully dispatched. The transaction hash is as follows: `0x249623614101fa45da37e8a7c4371429317adc7820caa04648c77564536431fd`". A green box highlights the transaction hash, with an arrow pointing to a callout box stating: "The transaction was successfully completed, and the transaction ID has been provided for verification purposes."

The next step is to ascertain the value of the ETH account following the transaction. It is evident that the value has decreased by 0.02, in addition to the incurred gas fees.

ETH Balance: 0.029 ETH

Furthermore, the account to which we are sending the tokens should have a balance of 0.02. (the account balance was 0.001)

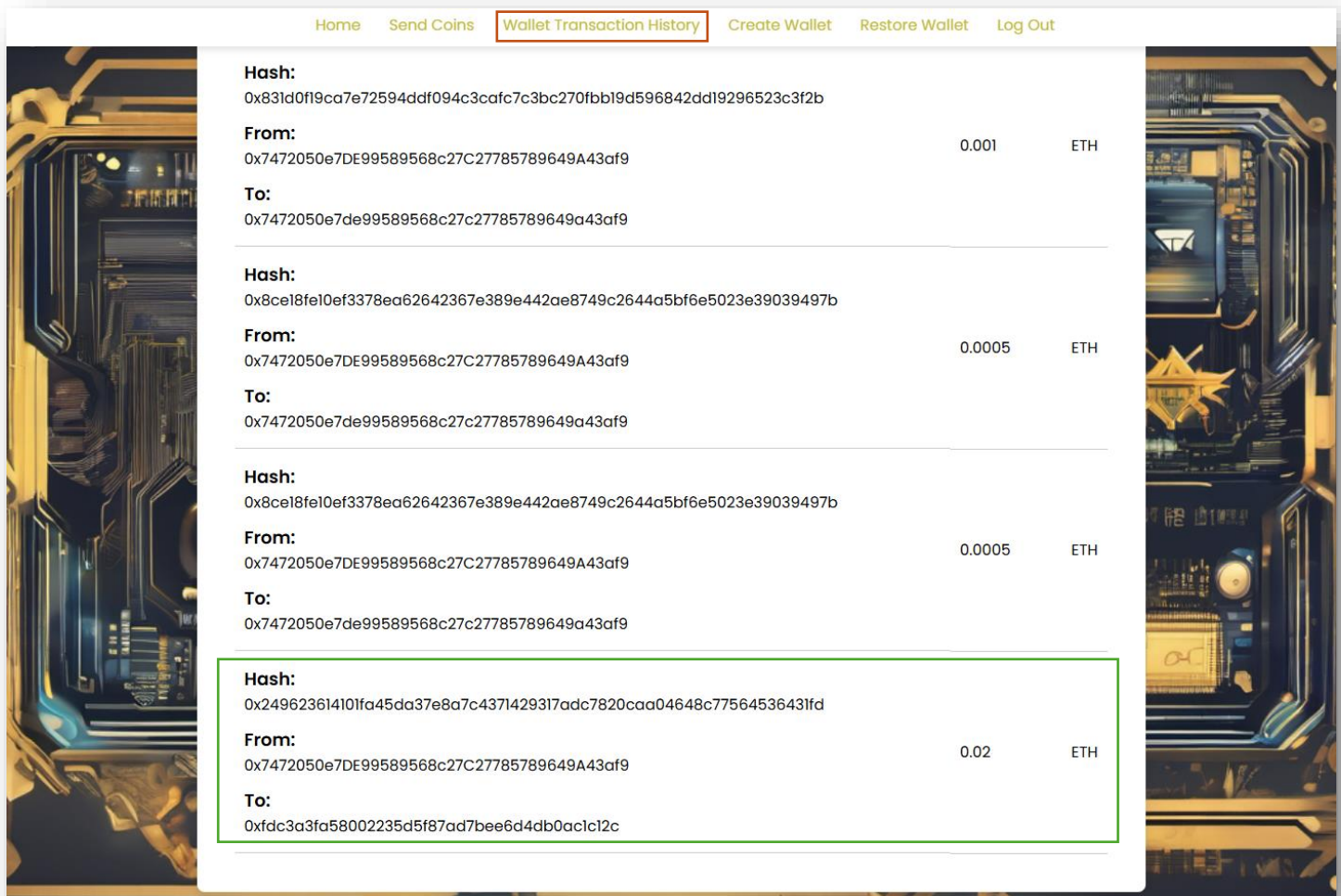


Also, we can see the verification of the transaction in [Etherscan](#).

[This is a Sepolia Testnet transaction only]

Transaction Hash:	<code>0x249623614101fa45da37e8a7c4371429317adc7820caa04648c77564536431fd</code>
Status:	Success
Block:	6504346 85 Block Confirmations
Timestamp:	18 mins ago (Aug-15-2024 10:17:36 AM UTC)
From:	<code>0x7472050e7DE99589568c27C27785789649A43af9</code>
To:	<code>0xFdC3a3Fa58002235d5f87AD7BeE6d4dB0ac1c12C</code>
Value:	0.02 ETH (\$0.00)
Transaction Fee:	0.00114114 ETH (\$0.00)
Gas Price:	54.34 Gwei (0.00000005434 ETH)

In addition to the Etherscan website, it is possible to access the wallet and view the signed transactions that have been made. To do so, the user should click on the option labelled "Wallet Transaction History," which will display all the transactions that have been made, from the old ones to the most recent.



Hash:	From:	To:	Amount	Currency
0x831d0f19ca7e72594ddf094c3c4fc7c3bc270fbb19d596842dd19296523c3f2b	0x7472050e7DE99589568c27C27785789649A43af9	0x7472050e7de99589568c27c27785789649a43af9	0.001	ETH
0x8ce18fe10ef3378ea62642367e389e442ae8749c2644a5bf6e5023e39039497b	0x7472050e7DE99589568c27C27785789649A43af9	0x7472050e7de99589568c27c27785789649a43af9	0.0005	ETH
0x8ce18fe10ef3378ea62642367e389e442ae8749c2644a5bf6e5023e39039497b	0x7472050e7DE99589568c27C27785789649A43af9	0x7472050e7de99589568c27c27785789649a43af9	0.0005	ETH
0x249623614101fa45da37e8a7c4371429317adc7820caa04648c77564536431fd	0x7472050e7DE99589568c27C27785789649A43af9	0xfdc3a3fa58002235d5f87ad7bee6d4db0ac1c12c	0.02	ETH

5. Restore Wallet

If the user has forgotten their password, it can be restored by inputting a 12-word phrase, which can be accessed via the "Restore wallet" option on the login page.

Restore Account

Seed Phrase

shrimp	aunt	suffer
stage	trust	below
slice	boring	deliver
wine	toy	live

New Password

.....

Password strength: Medium

Wallet Restored Successfully

Restore Wallet

Inputting the correct phrase and a new password should result in the restoration of the user's wallet. The user is then able to return to the login page and enter the relevant information to access their wallet.

6. General Tips and Notes

- **Real-Time Data**

User should be connected to Wi-Fi to be able to see real-time data charts, bad connection can lead to not displaying the [Trading view](#) charts.

- **Networks API's**

ETH: <https://sepolia.infura.io/v3/31dcabced2344e7db2fa98e375858867>

AVAX: <https://avalanche-fuji.infura.io/v3/55e824bc56b34aff8b55d07c64d1ff7c>

- **Currencies Prices API's**

ETH:

https://api.coingecko.com/api/v3/simple/price?ids=ethereum&vs_currencies=usd

AVAX:

https://api.coingecko.com/api/v3/simple/price?ids=avalanche-2&vs_currencies=usd