Web3 and Blockchain Basics: Setup Wallet and Explore DApps

Documentation:

Screenshots:

Manage networks

🔍 sep

Show test networks ⬤

S Sepolia ⋮

L Linea Sepolia ⋮

＋ **Add a custom network**

NF

twork

$0.00
0 SOL

um

$0.00
0 ETH

um

$0.00
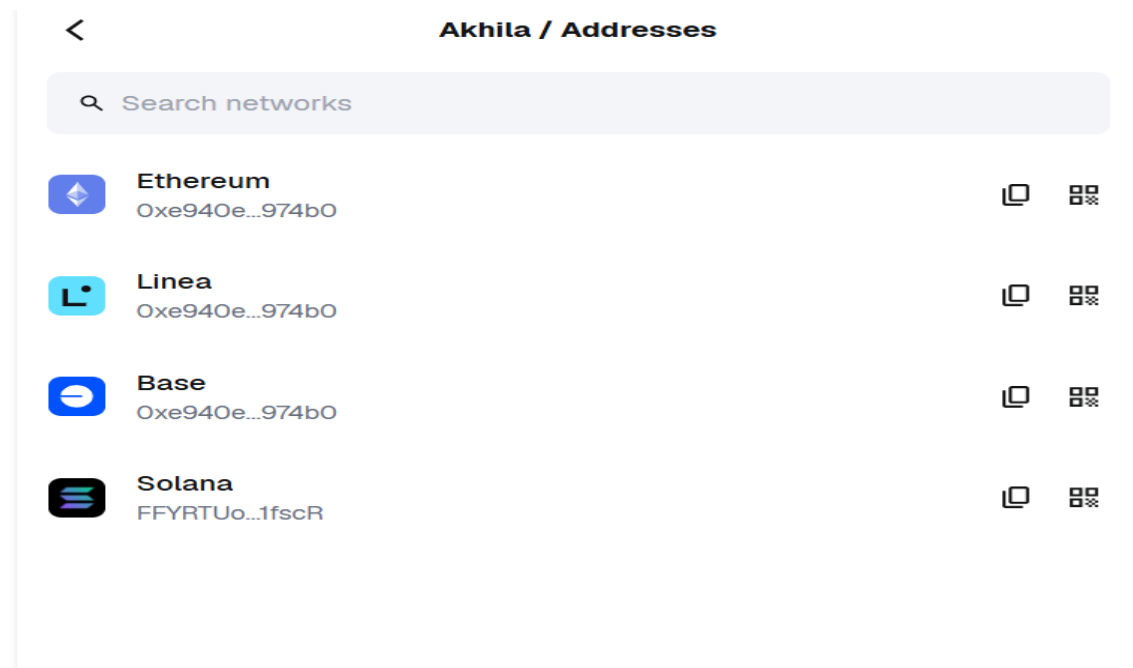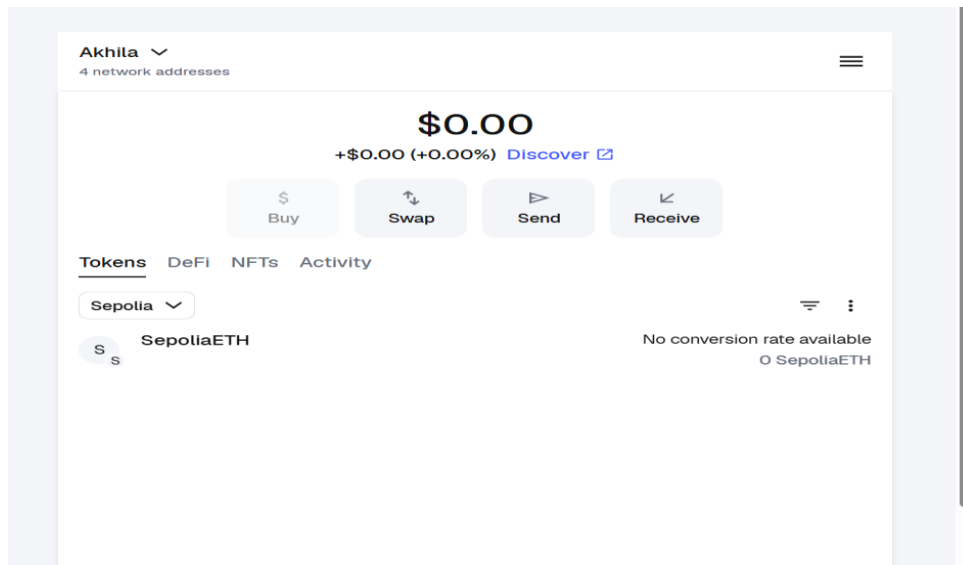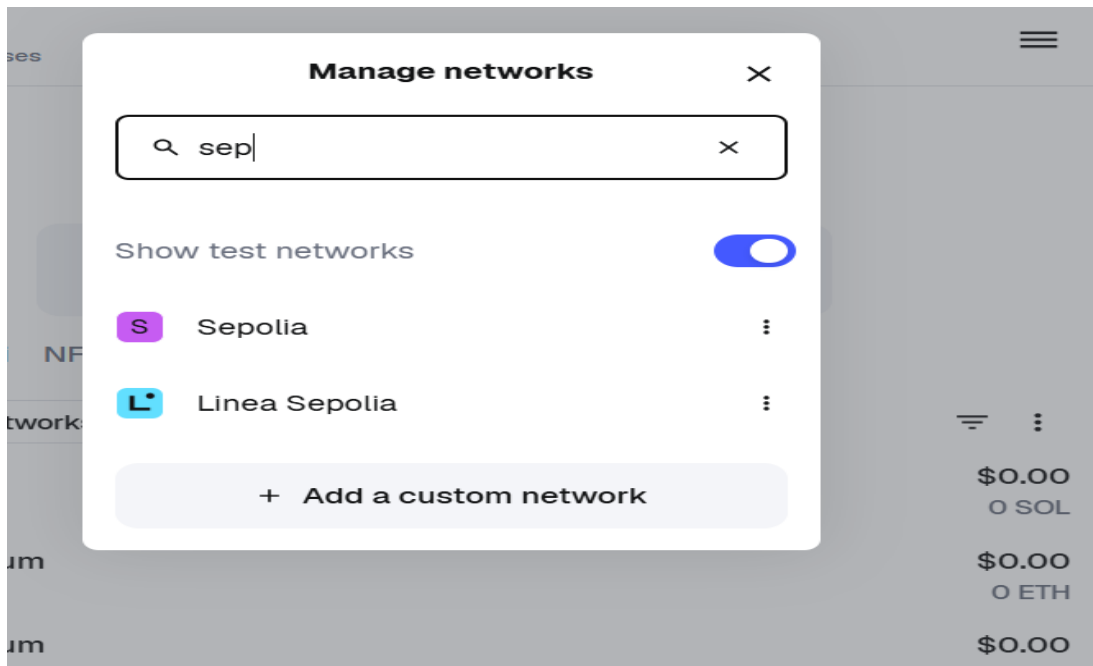
Sepolia PoW Faucet

The faucet is currently experiencing unusually high mining activity (>324 kH/s). For higher rewards, I recommend visiting again when the activity is lower.

Claim Rewards

Wallet: 0xe940ece5906724432b977af030f1dec0f3e974b0
Amount: 0.053 SepETH
Timeout: -

Claim Transaction has been confirmed in block #9516614!

TX: 0xb07023631b037ee937844b46076d351cee16cde8f07afcd9679862d06eca02bc
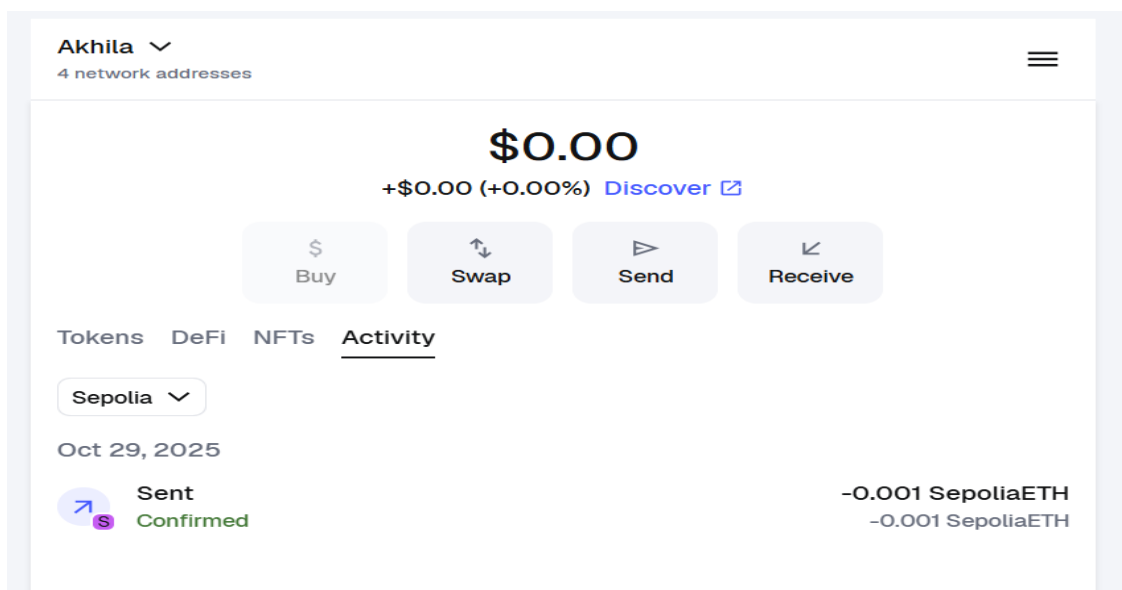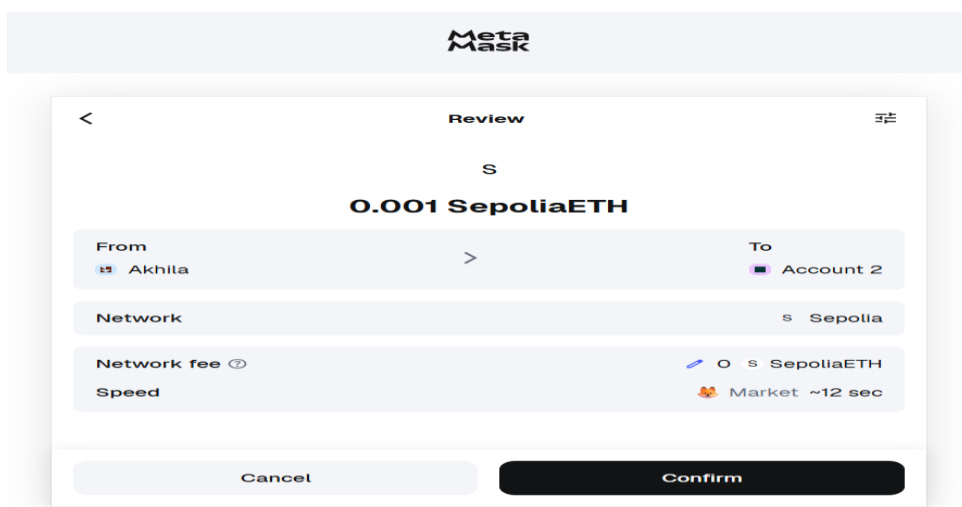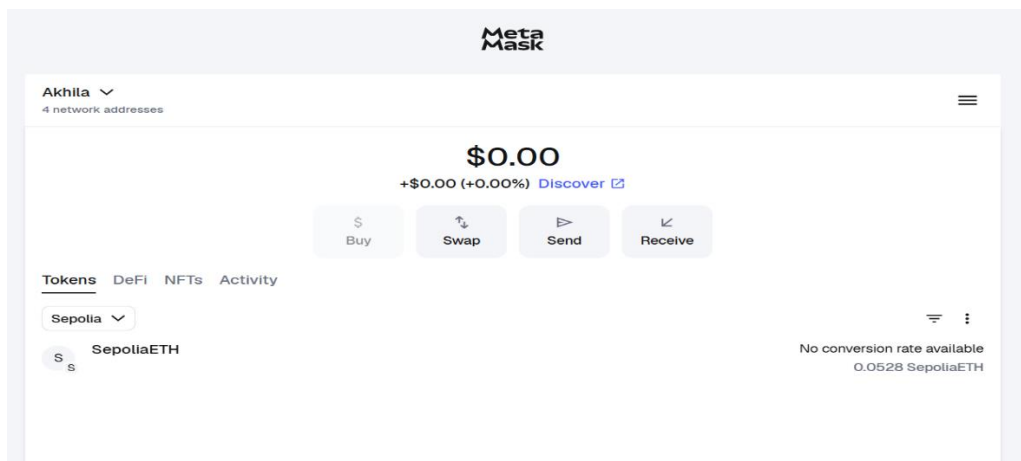
Did you like the faucet? Give that project a ◯ Star 5,241
Or support this faucet by sharing your result with a 🐦 Tweet Ⓜ Post

Return to startpage

Akhila ⌄
4 network addresses

$0.00
+$0.00 (+0.00%) Discover ↗

| $ Buy | ↑↓ Swap | ▷ Send | ↙ Receive |

Tokens DeFi NFTs Activity

Sepolia ⌄   ⏦ ⋮

S SepoliaETH   No conversion rate available
                                    0.0528 SepoliaETH

<   **Review**   莊

S

0.001 SepoliaETH

From		To
🐵 Akhila	>	🟦 Account 2

Network	S Sepolia

Network fee ⓘ	🖊 O S SepoliaETH
Speed	👬 Market ~12 sec

| Cancel | **Confirm** |

Akhila ⌄
4 network addresses

$0.00
+$0.00 (+0.00%) Discover ↗

| $ Buy | ↑↓ Swap | ▷ Send | ↙ Receive |

Tokens DeFi NFTs **Activity**

Sepolia ⌄

Oct 29, 2025

↗Ⓢ **Sent**   **−0.001 SepoliaETH**
    Confirmed   −0.001 SepoliaETH

Akhila ⌄
4 network addresses

Tokens DeFi NFTs

Sepolia ⌄

Oct 29, 2025

↗ Sent
S Confirmed

Sent   ✕

Status   View on block explorer
Confirmed   Copy transaction ID

From   **To**
🔺 0xe940E...974b0   →   ⬛ Account 2

Transaction
Nonce   0
Amount   –0.001 SepoliaETH
Gas Limit (Units)   31500
Gas Used (Units)   21000
Base fee (GWEI)   0.00000001
Priority fee (GWEI)   1.5
Total gas fee   0.000031 SepoliaETH
Max fee per gas   0.000000002 SepoliaETH
Total   **0.0010315 SepoliaETH**

+ **Activity log**

–0.001 SepoliaETH
–0.001 SepoliaETH

Sepolia Testnet

🔍 Search by Address / Txn Hash / Block / Token   /   📖 ☀ ♦

Etherscan   Home   Blockchain ⌄   Tokens ⌄   NFTs ⌄   More ⌄

Transaction Details ‹ ›

[Overview] State   </> API ☰⌄

⬙ **TRANSACTION ACTION**
   Transfer 0.001 ETH to 0x1DA5f06eE063E0adE3A89602a415C4b0446f26B3

[This is a Sepolia **Testnet** transaction only]

⑦ Transaction Hash: 0x4bb841369558dfd00477c2b931a51845be0501d7c72003b5dae6392166e36ab4 ⧉

⑦ Status: ✔ Success

⑦ Block: ⧖ 9516772 [13 Block Confirmations]

⑦ Timestamp: 🕐 2 mins ago (Oct-29-2025 04:12:00 PM UTC)

⑦ From: 0xe940EcE5906724432B977aF030f1DeC0f3E974b0 ⧉

⑦ To: 0x1DA5f06eE063E0adE3A89602a415C4b0446f26B3 ⧉

⑦ Value: ♦ 0.001 ETH

⑦ Transaction Fee:

⑦ Gas Price: 1.50000001 Gwei (0.00000000150000001 ETH)

Reflection on Web3 Basics:

In this Web3 practical, I learned how to use blockchain technology in a hands-on way by working with MetaMask and the Ethereum Sepolia test network. This activity helped me understand the core process of creating and using a digital wallet, connecting to a test network, and making a blockchain transaction step by step.

I started by installing the MetaMask browser extension and setting up my wallet securely. I carefully saved my seed phrase offline, as it is the only way to recover the wallet if access is lost. After setting up, I enabled the Sepolia Test Network in MetaMask to work with test ETH instead of real cryptocurrency. I then received test SepoliaETH from a faucet, which provides free tokens for learning and testing purposes.

Once my wallet was funded, I explored how blockchain transactions work. I used the "Send" option in MetaMask to transfer 0.001 SepoliaETH from (Akhila) to Account 2. The transaction took only a few seconds to process and was marked as "Confirmed." I then viewed the details on Etherscan, the blockchain explorer, which showed the transaction hash, gas fee, and status. Seeing the transaction recorded permanently on the blockchain helped me clearly understand how decentralized systems store and verify data publicly.

This experience gave me practical exposure to key Web3 concepts such as wallets, gas fees, smart contracts, and public verification. The main challenge I faced was understanding how gas fees are calculated and why transactions sometimes take time to confirm. However, after exploring Etherscan and checking the gas details in MetaMask, I understood how blockchain nodes validate transactions.

Overall, this exercise helped me build confidence in using blockchain tools and understand the difference between traditional banking systems and decentralized blockchain technology. I now feel more comfortable interacting with DApps and using wallets for future blockchain projects.

Web3 Basics — Technical Summary

Name: Akhila
Network Used: Ethereum Sepolia Testnet
Wallet Used: MetaMask

1. Introduction

The Web3 Basics activity helped me understand how blockchain technology, wallets, and decentralized applications (DApps) work together. In this task, I learned how to create a blockchain wallet using MetaMask, connect to the Ethereum Sepolia Testnet, receive free test ETH from a faucet, make a transaction, and verify it on Etherscan. Through this process, I gained practical knowledge of how real blockchain transactions are executed and recorded publicly on the blockchain.

2. Installing MetaMask and Creating Wallet

The first step was to install the **MetaMask** browser extension from the official website https://metamask.io. After installing it, I created a new wallet by clicking on **"Create a Wallet"**. I then set a strong password and was given a **12-word secret recovery phrase** (also called a seed phrase). I wrote this phrase down on paper and stored it safely offline because it is the only way to recover the wallet if access is lost.

Once the setup was complete, MetaMask opened my wallet dashboard, showing **Account 1 (Akhila)** along with a unique public wallet address starting with "0x…". This address acts like an account number that can be shared publicly for receiving ETH or tokens.

3. Adding the Ethereum Sepolia Test Network

By default, MetaMask connects to the Ethereum Mainnet, where real ETH is used. Since we needed free test ETH, I enabled **Test Networks** from MetaMask's Settings → Advanced → "Show Test Networks."
Then, I switched to **Sepolia Test Network** from the dropdown list. This allows

interaction with a blockchain that behaves like Ethereum Mainnet but uses **test ETH**, which has no real value.

After switching, the top of my MetaMask wallet displayed **"Sepolia Test Network"**, confirming that all future transactions would take place on the test blockchain.

4. Getting Test ETH from a Faucet

To perform transactions, I needed some test ETH. For that, I visited the **Alchemy Sepolia Faucet** website. On the page, I pasted my MetaMask wallet address (copied from the "Account 1 (Akhila)" section) and requested ETH. After waiting a few seconds, I received confirmation, and the test ETH appeared in my MetaMask balance. This step simulated how users fund their wallets with real ETH in actual blockchain use cases.

5. Making a Test Transaction

With test ETH in my wallet, I clicked the **"Send"** button in MetaMask. I pasted another wallet address (Account 2) as the recipient and entered **0.001 SepoliaETH** as the amount to transfer. Then I confirmed the transaction.

Within a few seconds, the transaction changed from "Pending" to **"Confirmed."** This demonstrated how blockchain transactions are validated and permanently recorded through miners or validators.

6. Verifying on Etherscan

MetaMask provided a link to **view the transaction on Etherscan**, which is a blockchain explorer for Ethereum and test networks. On the Etherscan page, I could see:

- The **Transaction Hash (TxHash)**
- The **Block Number**
- The **Sender and Receiver Addresses**

- The **Gas Fee** (the small cost for processing the transaction)

- The **Transaction Status: Success**

This verification proved that the transaction was truly completed on the blockchain and is permanently visible to anyone — showing the transparency of Web3 technology.

7. Screenshots Collected

Throughout the process, I took the following screenshots as proof of work:

1. MetaMask wallet home screen showing Account 1 (Akhila).

2. Sepolia test network selected in MetaMask.

3. Alchemy faucet transaction confirmation.

4. MetaMask "Send" transaction page.

5. Etherscan transaction details page.

These images document each step of the Web3 activity and show successful blockchain interaction.

8. Learning Outcomes

Through this task, I learned:

- How to **create and secure a crypto wallet**.

- The difference between **Mainnet and Testnet**.

- How **faucets** are used to obtain free tokens for testing.

- How blockchain transactions are **transparent, verifiable, and immutable**.

- How **Etherscan** helps verify all blockchain records.

This exercise gave me hands-on understanding of how decentralized applications interact with wallets and networks — the foundation of all Web3 technologies.

9. Final Step — Documentation

After completing all tasks, I combined my **Reflection** and this **Technical Summary** into a single document titled:
📄 **Akhila_Web3_Basics.pdf**
This file includes all screenshots, descriptions, and written summaries for submission.

☑ Completed Items Checklist

- MetaMask installed & wallet created (Akhila)

- Testnet enabled (Sepolia)

- Faucet ETH received

- Transaction sent and verified on Etherscan

- Screenshots taken

- Reflection and Summary written

- PDF prepared for submission