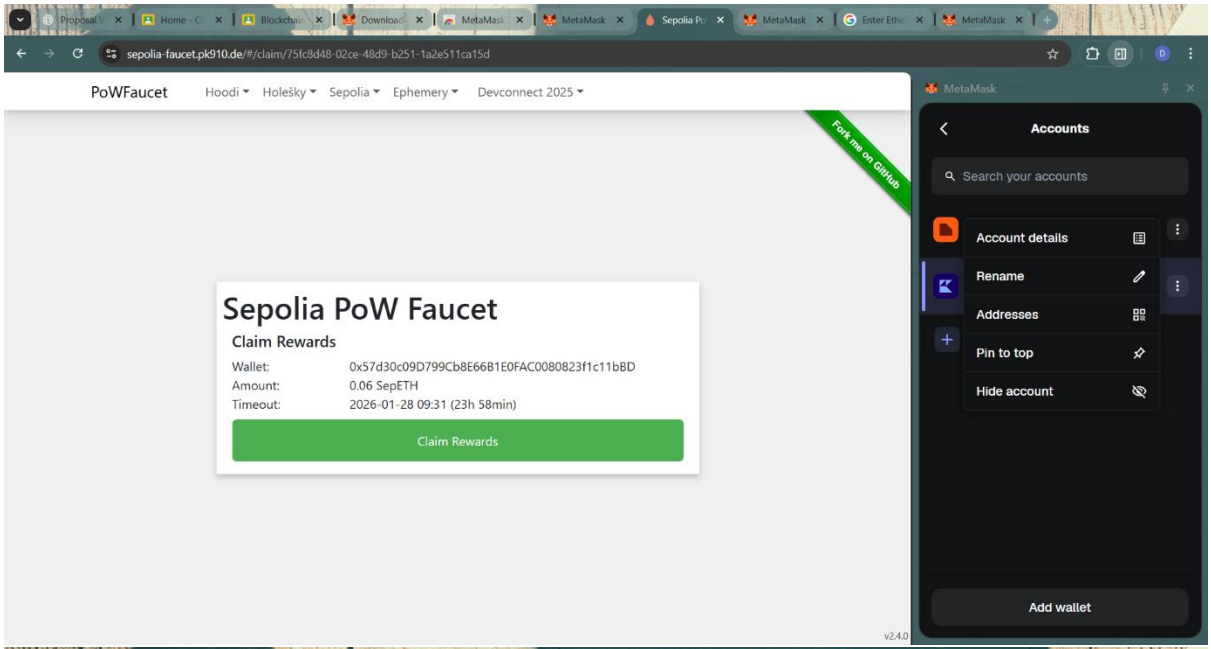
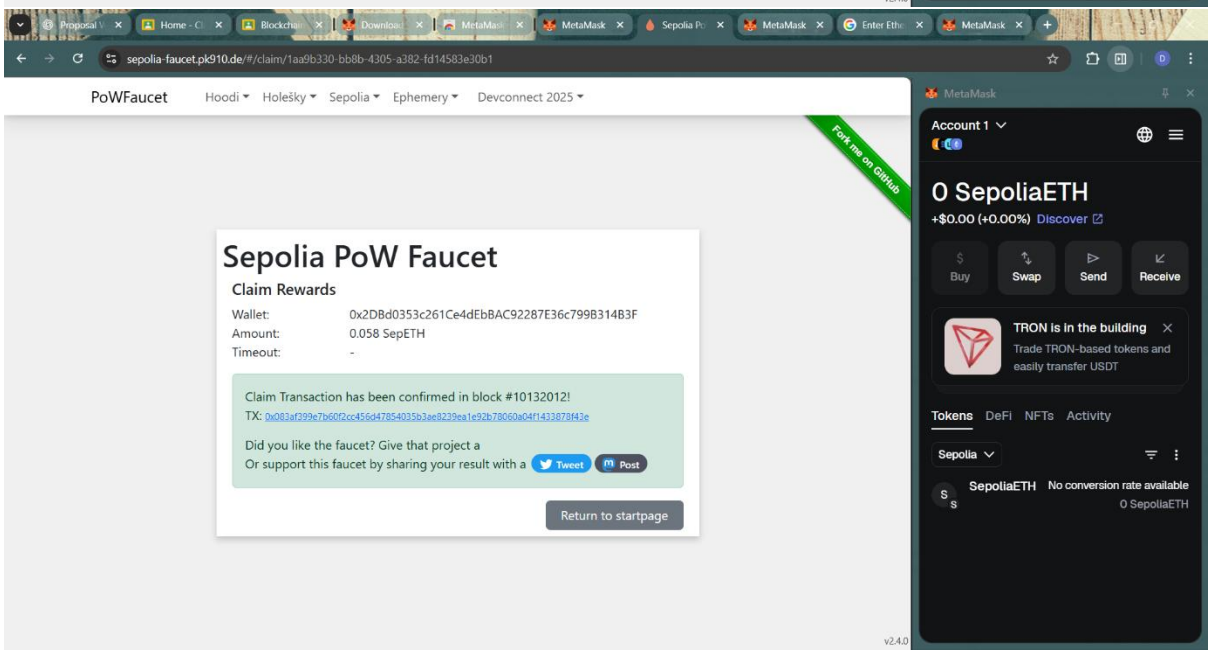
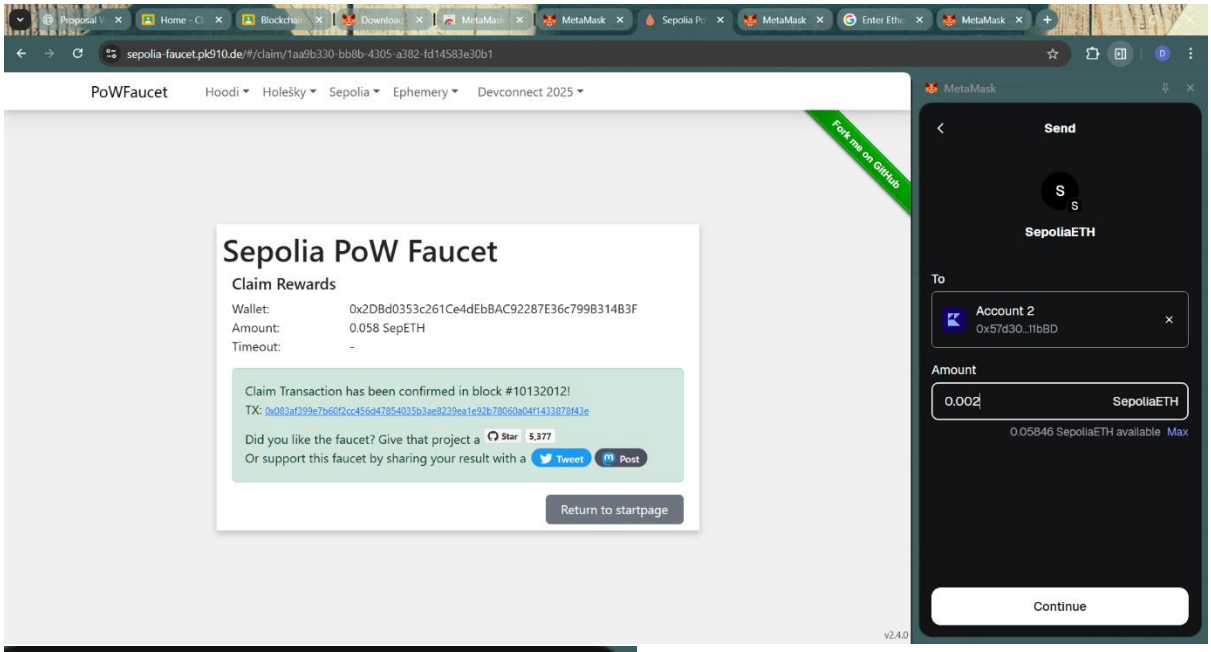
Lab Manual: Exploring MetaMask Wallet

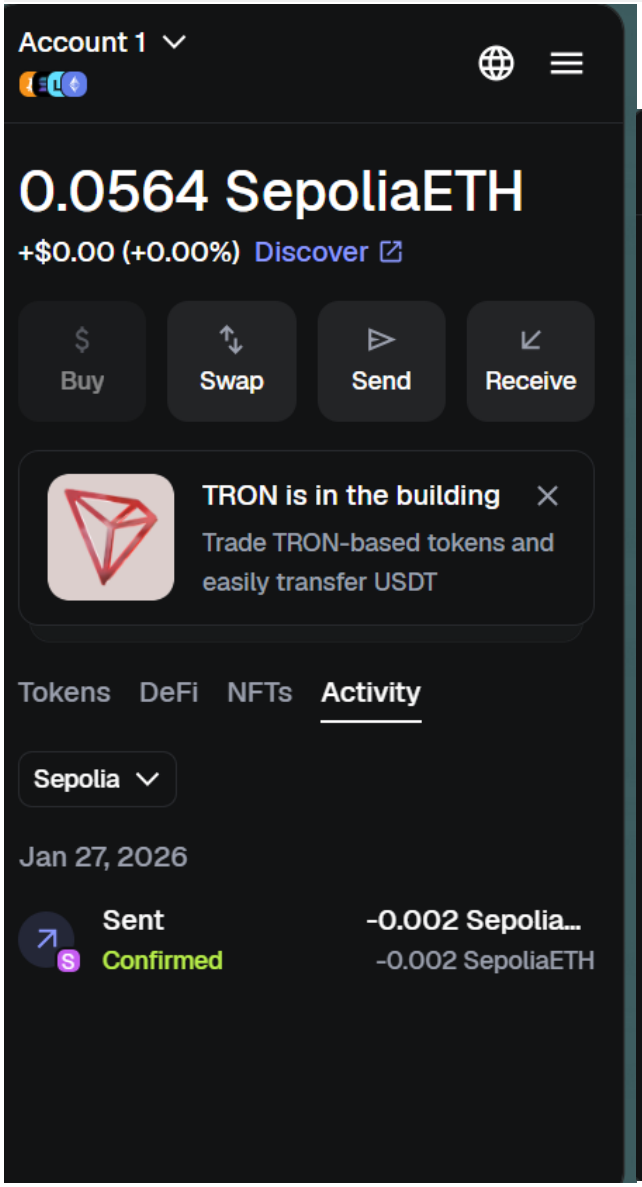
Part 1: Introduction to MetaMask

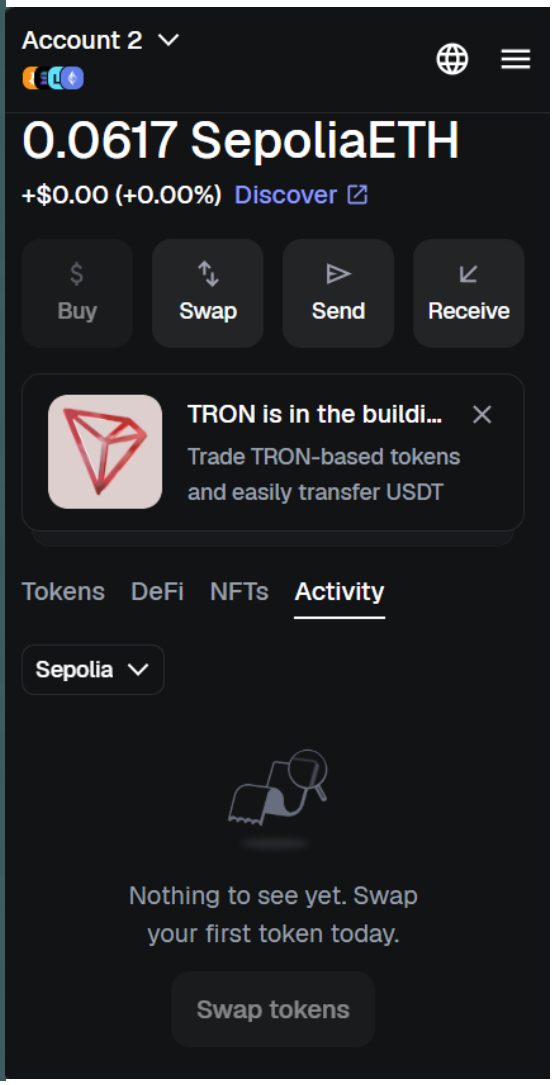


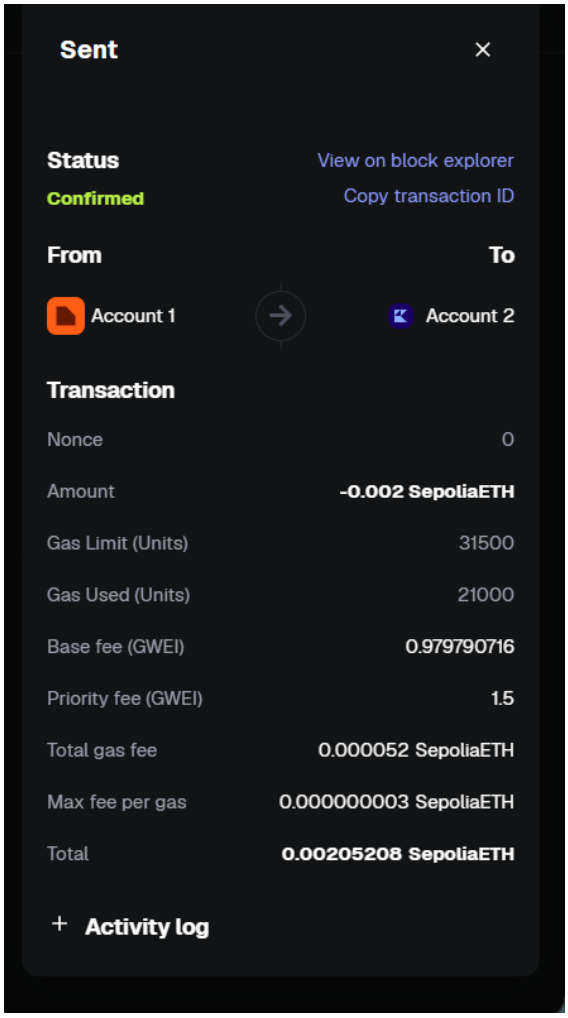


SELF TRANSFER

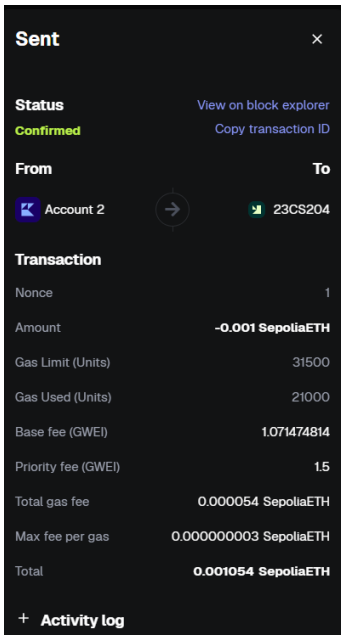

sepolia-faucet.pk910.de/#/claim/1aa9b330-bb8b-4305-a382-fd14583e30b1
PoWFaucet
Hoodi
Holešky
Sepolia
Ephemery
Devconnect 2025
Fork me on GitHub
Sepolia PoW Faucet
Claim Rewards
Wallet: 0x2DBd0353c261Ce4dEbBAC92287E36c799B314B3F
Amount: 0.058 SepETH
Timeout: -
Claim Transaction has been confirmed in block #10132012!
TX: 0x083af399e7b60f2cc456d47854035b3ae8239ea1e92b78060a04f1433878f43e
Did you like the faucet? Give that project a Star 5,377
Or support this faucet by sharing your result with a Tweet Post
Return to startpage
v2.4.0
MetaMask
Send
SepoliaETH
To
Account 2
0x57d30...11bBD
Amount
0.002
SepoliaETH
0.05846 SepoliaETH available Max
Continue

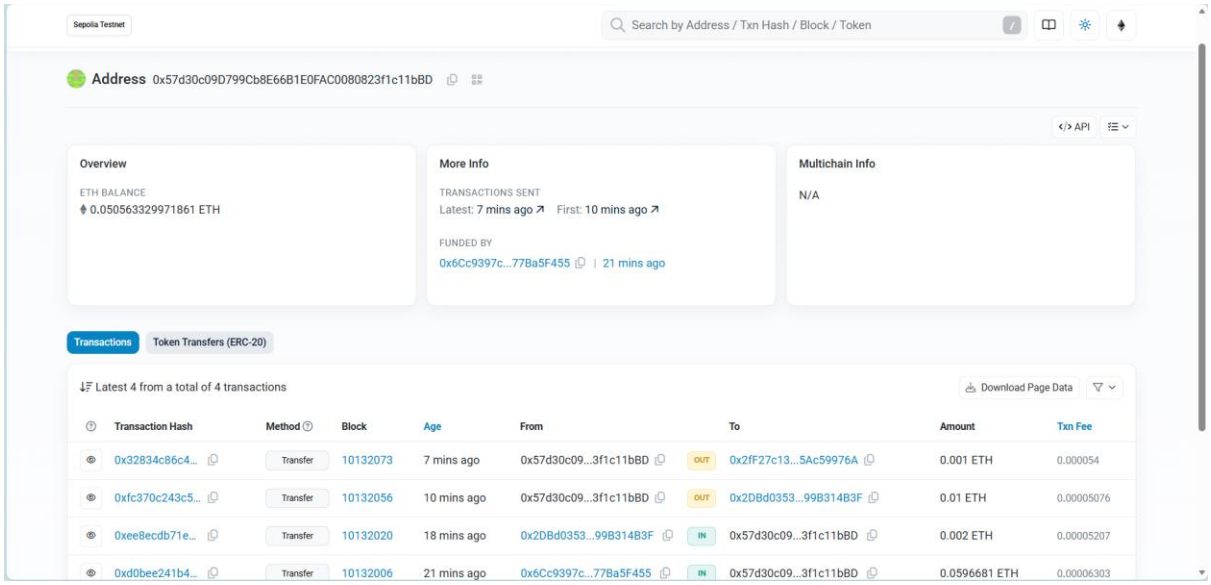

Account 1
0.0564 SepoliaETH
+$0.00 (+0.00%) Discover
Buy
Swap
Send
Receive
TRON is in the building
Trade TRON-based tokens and easily transfer USDT
Tokens
DeFi
NFTs
Activity
Sepolia
Jan 27, 2026
Sent
Confirmed
-0.002 Sepolia...
-0.002 SepoliaETH


Account 2
0.0617 SepoliaETH
+$0.00 (+0.00%) Discover
Buy
Swap
Send
Receive
TRON is in the buildi...
Trade TRON-based tokens and easily transfer USDT
Tokens
DeFi
NFTs
Activity
Sepolia
Nothing to see yet. Swap your first token today.
Swap tokens



NEIGHBOUR TRANSFER





Part 2: Understanding Bitcoin

1) Inspect and explore block #0 using https://www.blockchain.com/btc/block/0 to solve the below question.

a. How many transactions are there in the Genesis block in Bitcoin?

:- 1

b. Who mined this block, and what was the block reward?

:- The Genesis block was mined by Satoshi Nakamoto, the creator of Bitcoin. The block reward for this block was 50 BTC, which represents the first bitcoins ever created

2) Inspect and explore block #0 using this link to solve the below question.

a. How many transactions are there in the Genesis block in Ethereum (other than the transaction for Miner fee)?

:- 8893 transactions and 0 contract internal transaction in this block

b. What is hash of the parent block? What are your observations?

0x0000000000000000000000000000000000000000000000000000000000000000

The parent hash is all zeroes, indicating the start of the chain.

3) Inspect and explore block #490624 using this link to solve the below question.

a. What is the hash of the previous block for Bitcoin block #490624? Copy and paste the answer into the box below.

000000000000000007b947f24141084da515d30000000000000000000000000

4) Inspect and explore the transaction with the hash "0x5edb69874d0900d8857468fbe53715cc1a58137709b8b70e46299bf10983dc09" using this link.

a. Approximately, how many Ethers are transferred in this transaction?

913.27ETH($2,682,044.93)

b. What is the address of the sender in this transaction?

0xF9fbA58d8345bD3100C5AdF3b8B51938E5dA0a9D

c. What is the Transaction Action?

Transfer of 913.27 ETH to 0xFf1b354670E3502145c097bcD2d1F3f17B648e63

Exercise 3:

1. Why does blockchain use a Secret Recovery Phrase?

Blockchain uses a Secret Recovery Phrase to allow users to recover their wallet if their device or wallet application is lost or damaged. The recovery phrase is a set of 12 or 24 words that can regenerate all the private keys associated with a wallet. Since blockchains are decentralized and do not have a central authority, this phrase acts as the only backup method. Without it, access to the wallet and its assets is permanently lost.

2. What are Gas Fees in Ethereum, and why are they required?

Gas fees in Ethereum are transaction fees paid to validators for processing and verifying transactions on the network. These fees are required because every transaction or smart contract execution consumes computational resources. Gas fees also help prevent spam transactions and ensure that the network remains secure and efficient. The fee amount varies depending on network congestion and the complexity of the transaction.

3. Why do blockchain transactions take time instead of happening instantly?

Blockchain transactions take time because they must be verified and confirmed by multiple nodes in the network before being added to a block. This process ensures the security and accuracy of the transaction. Since blocks are created at fixed time intervals and require consensus among participants, transactions cannot occur instantly. This delay helps prevent fraud and double-spending.

4. What is a Testnet Faucet and how does it help?

A testnet faucet is a service that provides free test cryptocurrency for use on a blockchain's test network. It helps developers and learners test transactions, smart contracts, and decentralized applications without using real funds. Since testnet coins have no real monetary value, they provide a safe environment for experimentation and learning.

5. Why should you never share your private key?

A private key should never be shared because it provides full control over a blockchain wallet and its assets. Anyone who has access to the private key can transfer funds without the owner's permission. Blockchain transactions are irreversible, and there is no way to recover stolen assets. Therefore, keeping the private key secure is essential for protecting digital assets.