Functional Requirement Document

5irechain Alpha Testnet Release

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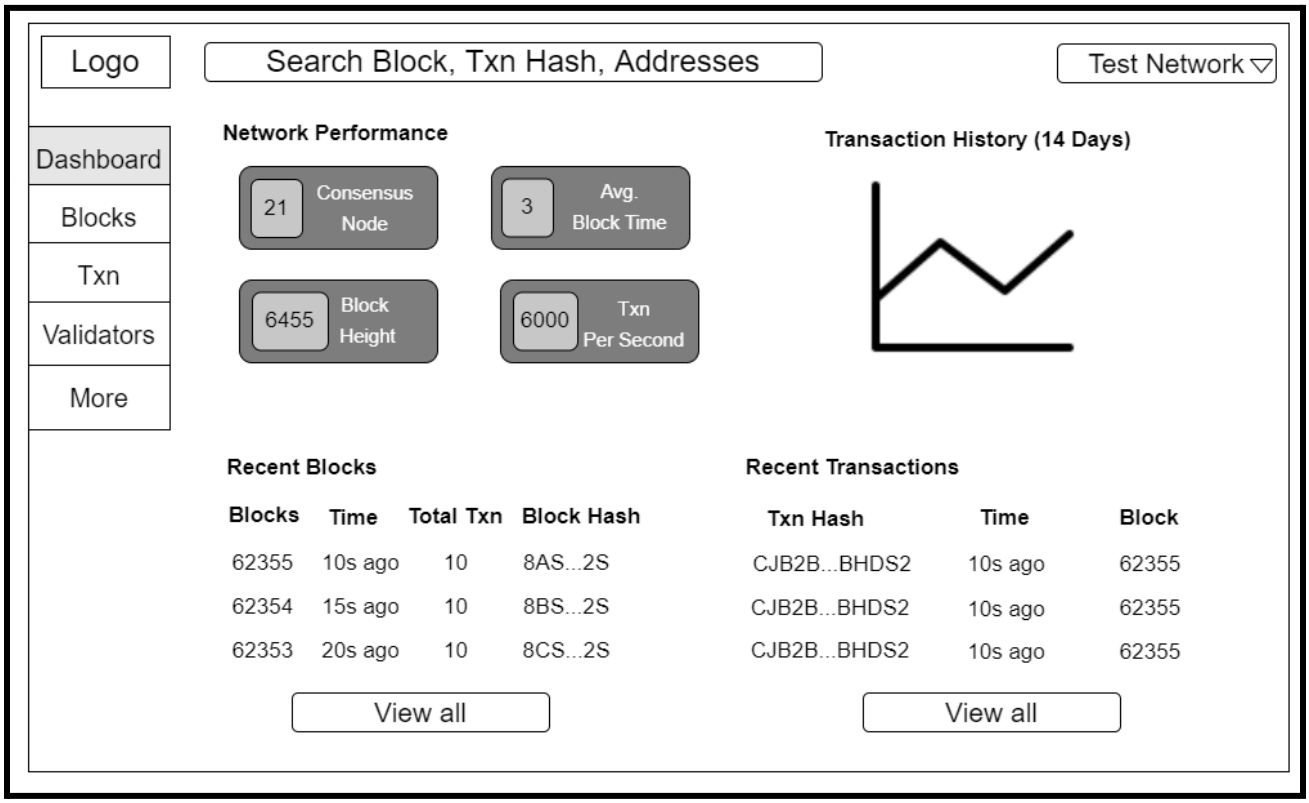
Introduction

5irechain Explorer is your portal to 5irechain blockchain's data. You can use it to see real-time data on blocks, transactions, validators, accounts, and other on-chain activity. 5irechain is transparent by design, so everything is verifiable. 5irechain explorer provides an interface for getting this information.

Dashboard



- Search Bar: Users can use the search bar to instantly get details of any transaction, block, or wallet address. To access the search, simply enter or copy & paste any public 5irechain wallet address, transaction hash, block hash or number into the search field and click search (or press enter). Doing so will allow users to view all the associated details.

- Testnet/Mainnet Switch: A dropdown to switch between the testnet & mainnet environments of the 5irechain blockchain.

- Network Performance:

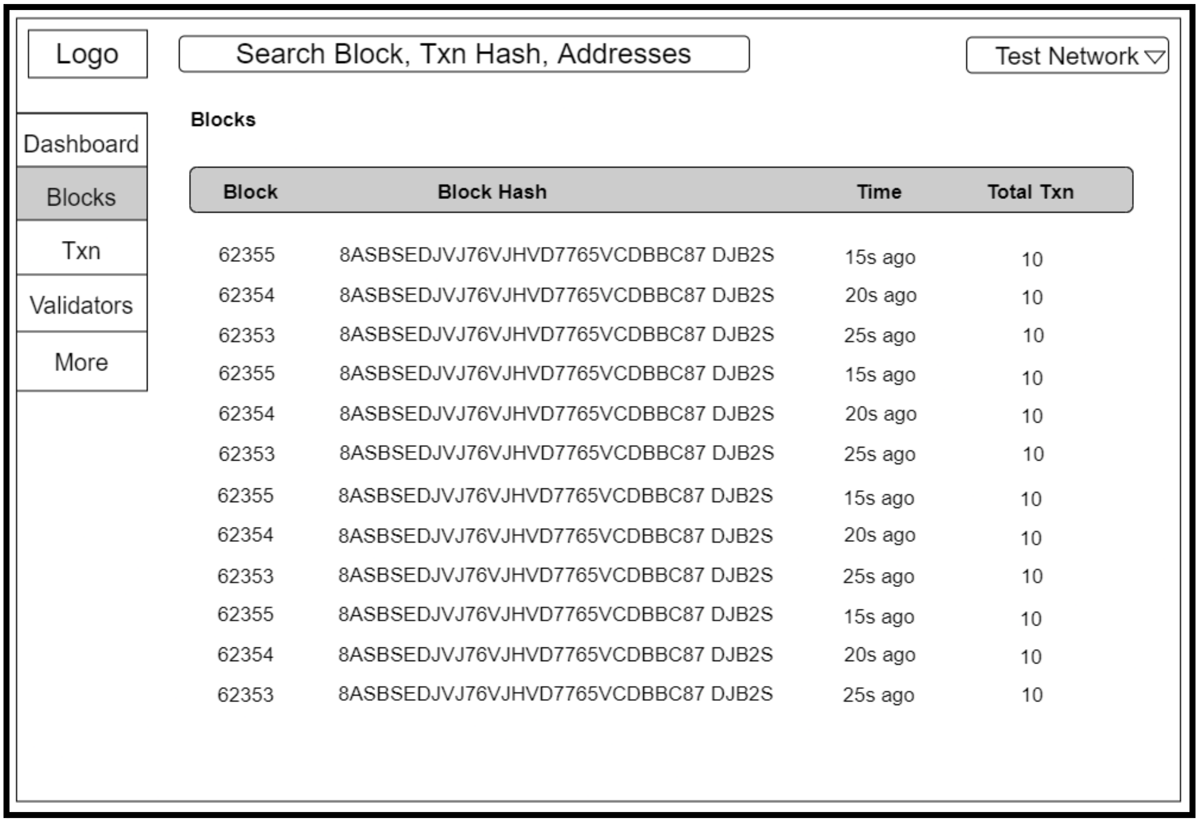
  - Consensus Nodes: It will show the number of validator nodes active on the blockchain.
  - Avg. Block Time: This shows the node's block creation time.
  - Block Height: The number of blocks preceding it in the blockchain, indicating the length of the blockchain, increases after the addition of the new block.
  - Txn. Per Second: It provides the current transaction per second for the 5irechain blockchain.

- Transaction History(14 Days): A graph illustrating the trend of the transaction history on the 5irechain.

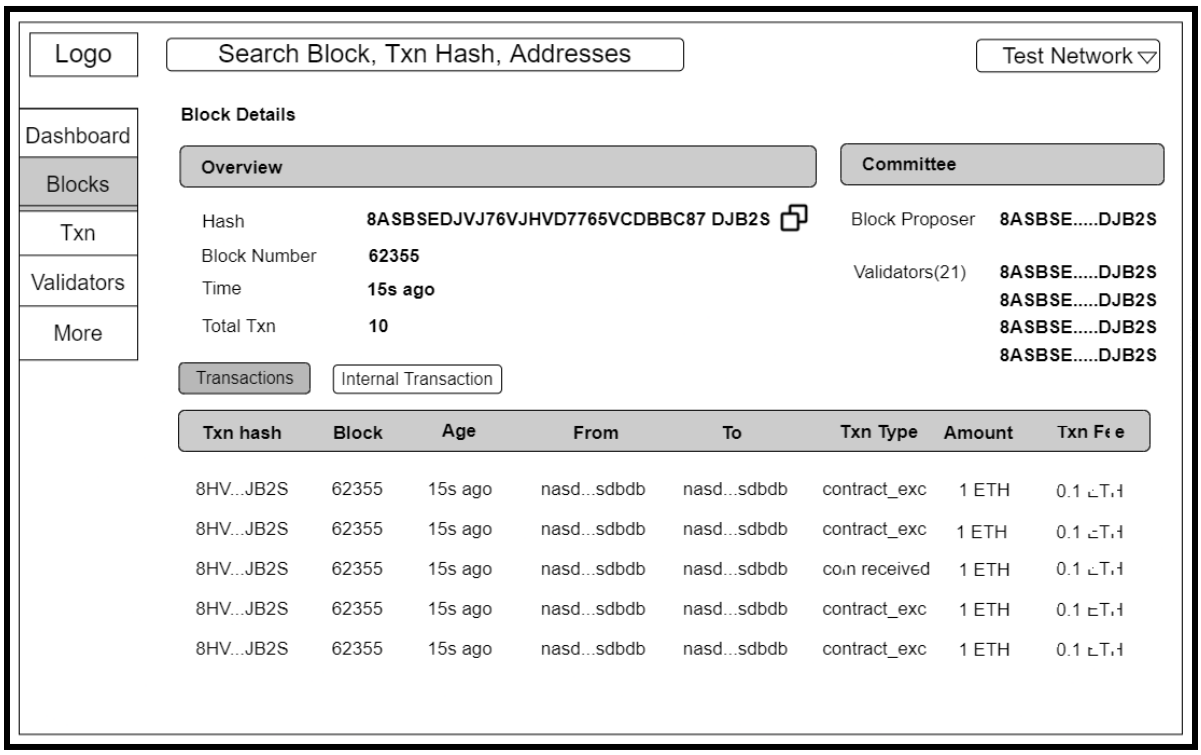
- Recent Blocks: It lists all the latest blocks generated on the 5irechain blockchain.

- Recent Transactions: It lists all the recent transactions processed on the 5irechain blockchain.

Blocks:



- Blocks List
  - Block: It displays the block number of that particular block. Blocks are arranged in chronological order in a blockchain.
  - Block Hash: It is the unique hash of that block, the user can view detailed information of the block using the block hash.
  - Time: Displays when the block has been produced.
  - Total Txn: Count of transactions committed within the block.

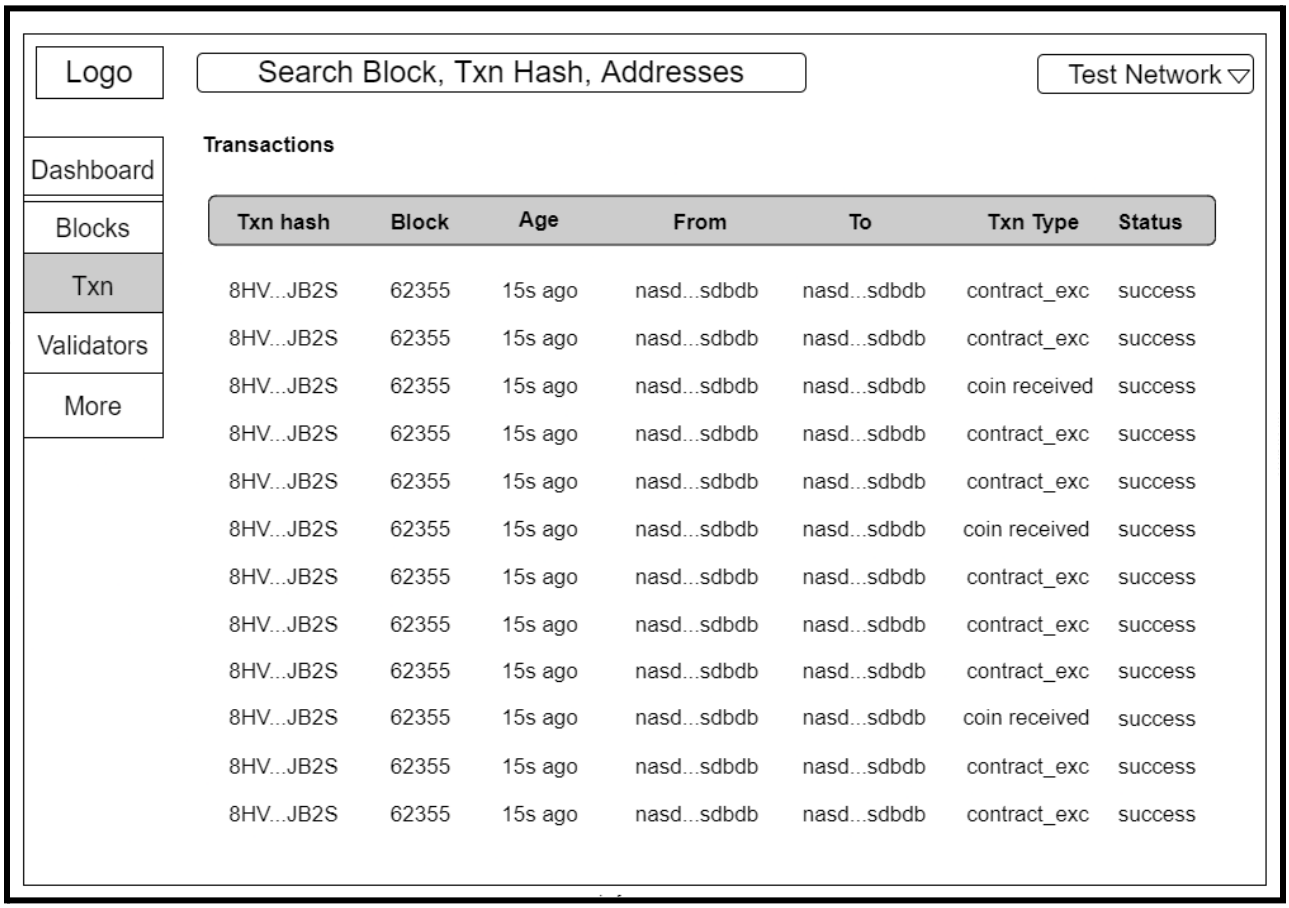


- Block Details

  - Committee
    - Block Proposer: The validator who has verified the block.
    - Validators: List of all the validators on the 5irechain Blockchain.

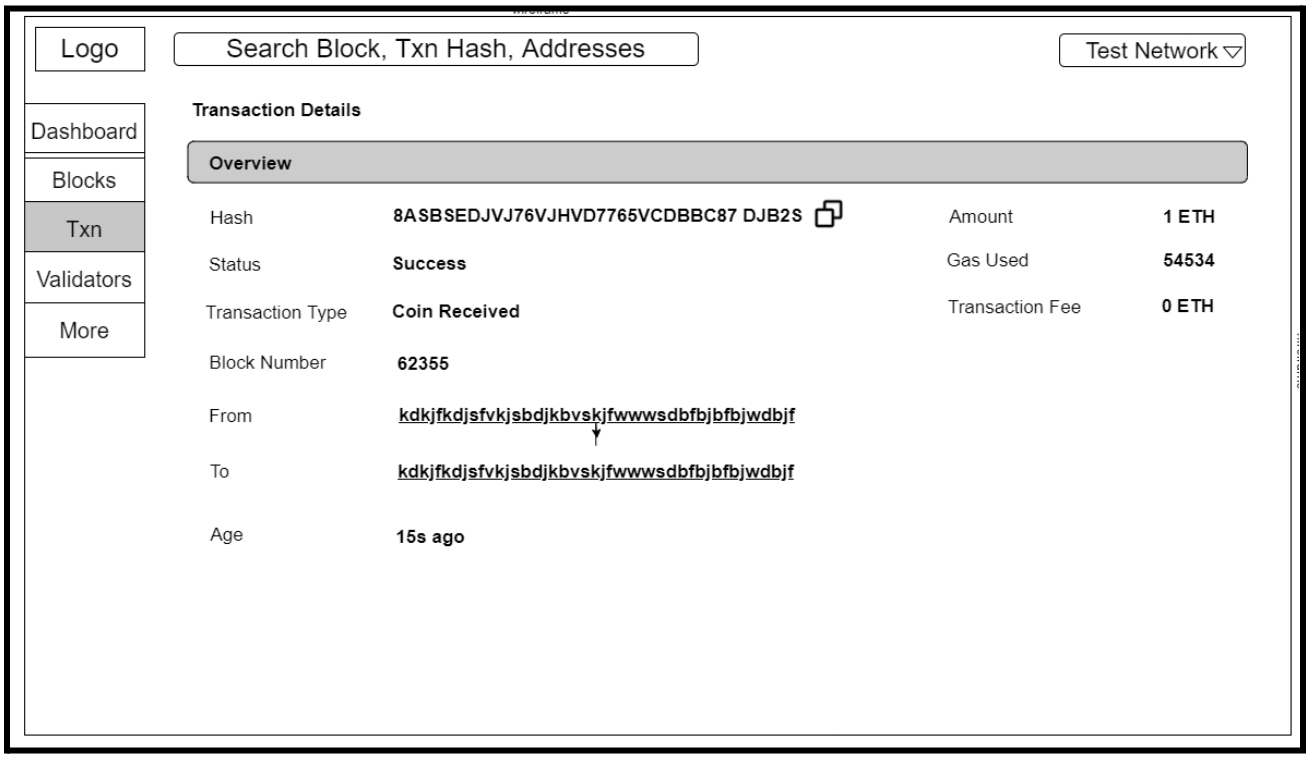
  - Transactions
    - Txn Hash: Unique hash of a transaction in a blockchain that acts as a record or proof that the transaction has taken place.
    - Age: The length of time passed since the transaction was processed.
    - From: Shows the sender's address.
    - To: Shows the receiver's address.
    - Txn Type: It shows the transaction type like Coin transfer, Contract executed, Token transfer, etc.
    - Amount: Total native coin of the 5irechain transferred in that particular transaction.
    - Txn Fee: The amount of Fee deducted in the 5irechain's native coin.

Transactions

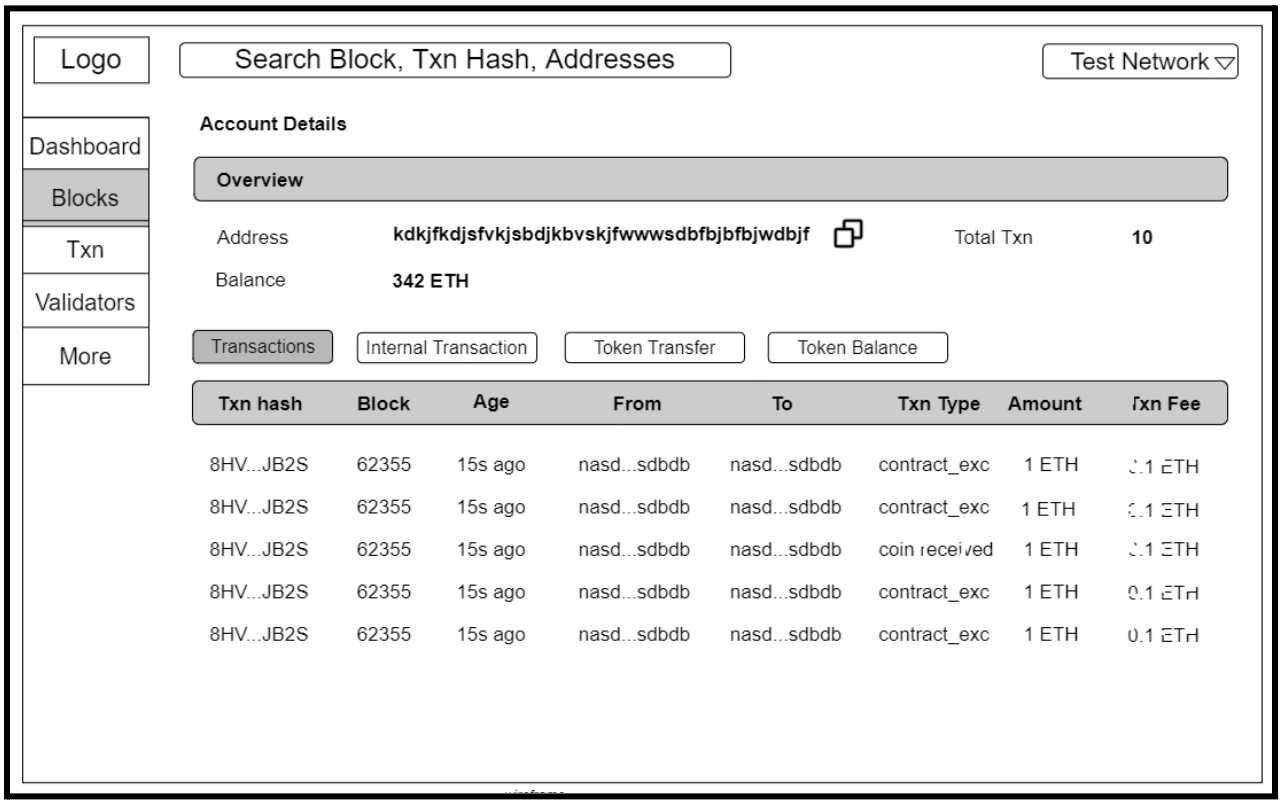


- Transactions List
    - Txn Hash: Unique hash of a transaction in a blockchain that acts as a record or proof that the transaction has occurred.
    - Block: It displays the block number in which the transaction is committed.
    - Age: The length of time passed since the transaction was processed.
    - From: Shows the sender's address.
    - To: Shows the receiver's address.
    - Txn Type: It shows the transaction type like Coin transfer, Contract executed, Token transfer, etc.
    - Amount: Total native coin of the 5irechain transferred in that particular transaction.
    - Status: Success or Failed.

- Gas Used: The units of computation required to process the transaction

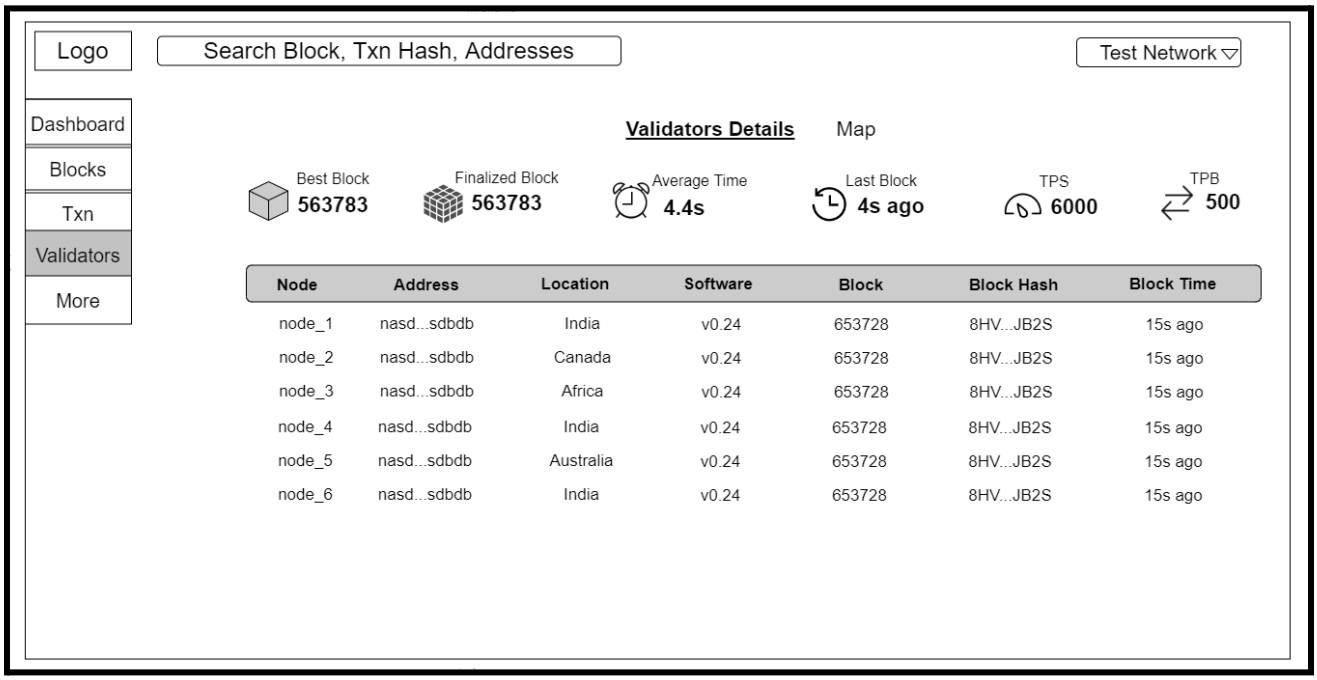


Account Details



- Address: User's account address.
- Balance: 5irechain's native coin balance of the user.
- Total Txn: Number of transactions done by the user until now.
- Transactions
    - Txn Hash: Unique hash of a transaction in a blockchain that acts as a record or proof that the transaction has occurred.
    - Block: It displays the block number in which the transaction is committed.
    - Age: The length of time passed since the transaction was processed.
    - From: Shows the sender's address.
    - To: Shows the receiver's address.
    - Txn Type: It shows the transaction type like Coin transfer, Contract executed, Token transfer, etc.
    - Amount: Total native coin of the 5irechain transferred in that particular transaction.
    - Status: Success or Failed.

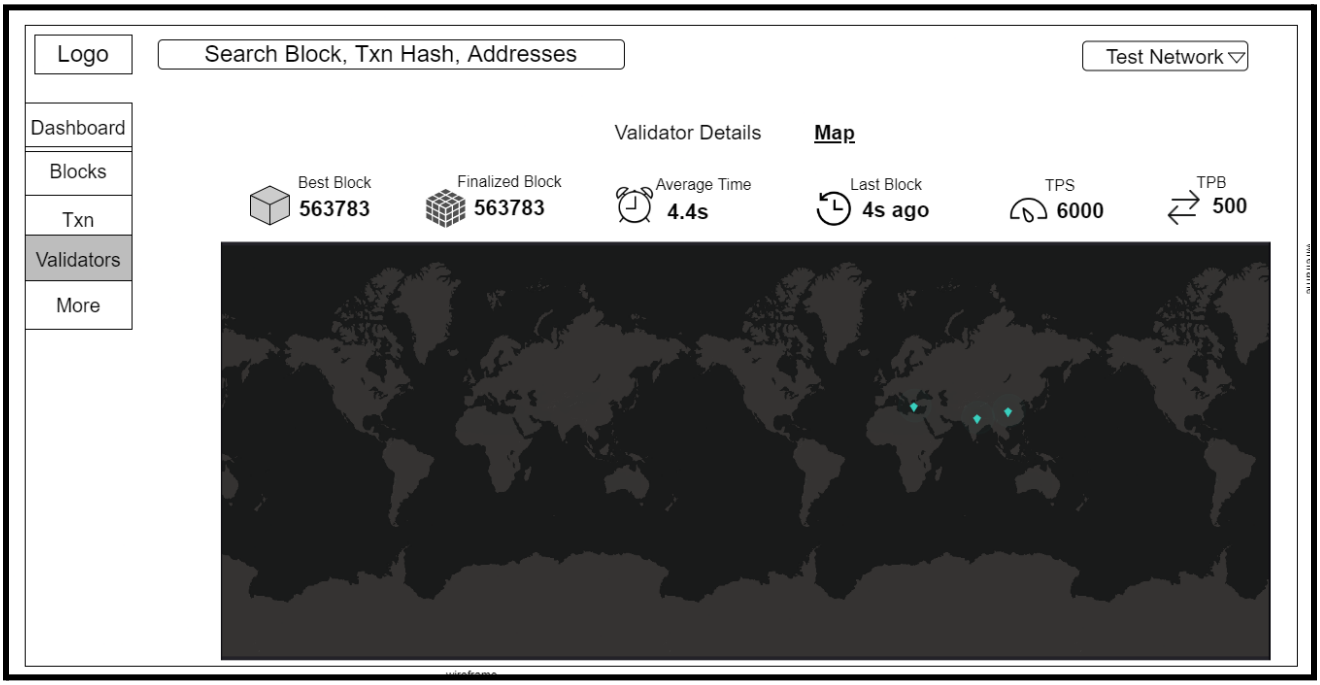
Validators



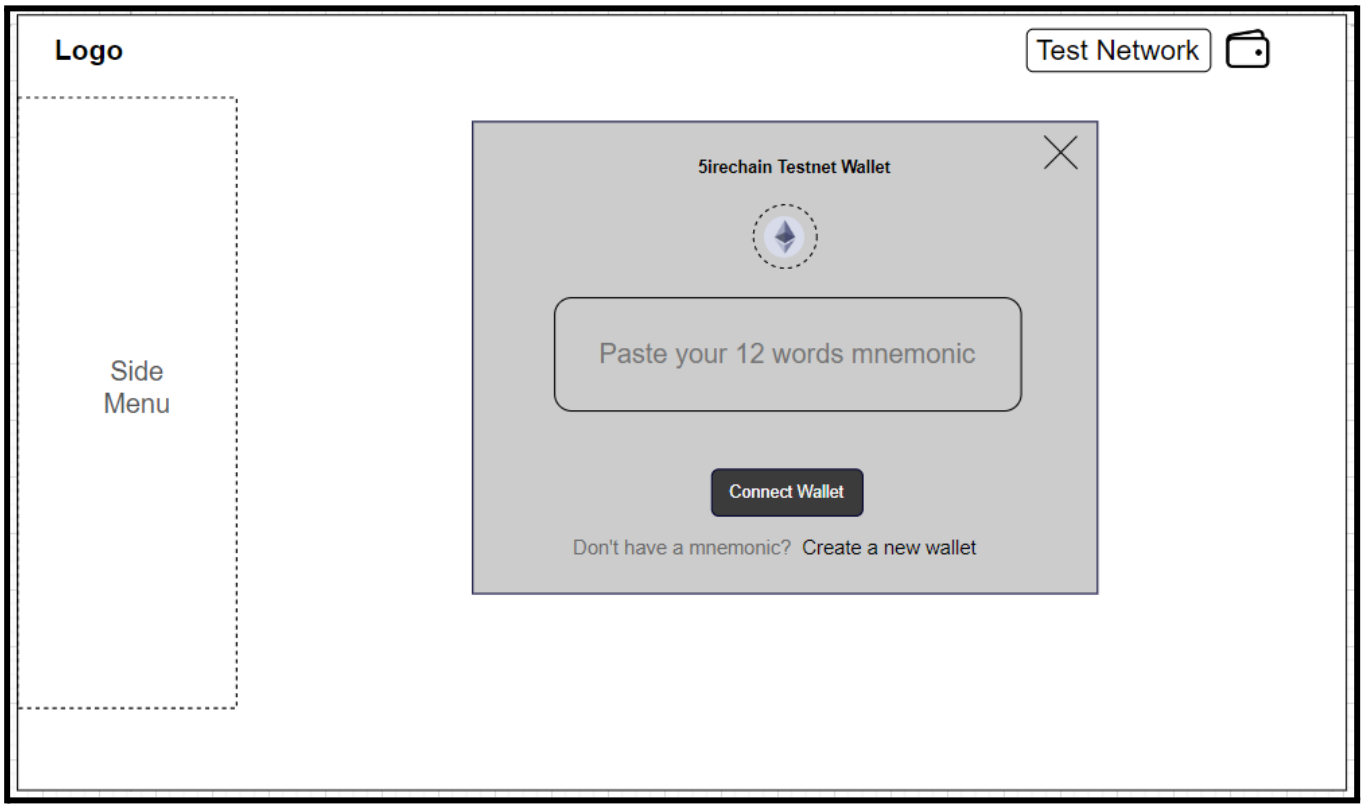
- Best Block: It displays the total number of blocks produced since the genesis block.
- Finalized Block: It displays how many blocks have been recorded on the 5irechain blockchain once a validator has validated them.
- Average Time: It shows the average block creation time.
- Last Block: It shows the time when the previous block was produced.
- TPS: It provides the current transaction per second for the 5irechain blockchain.
- TPB: It provides the current transaction per block for the 5irechain blockchain, i.e., how many transactions are happening in a given block.
- Validators List
    - Node: Displays the validator's node name.
    - Address: Displays wallet address for a particular validator.
    - Location: Shows the geo-location of the validator node.
    - Block: Displays the block number for that particular node with which it is synchronized.
    - Block Hash: Displays the block hash of the particular node with which it is synchronized.

- Block time: This shows the block creation time by that particular node.
- Avg. Block Time: This shows the node's average block creation time.

- Map: The map represents the locations of all the validator nodes.



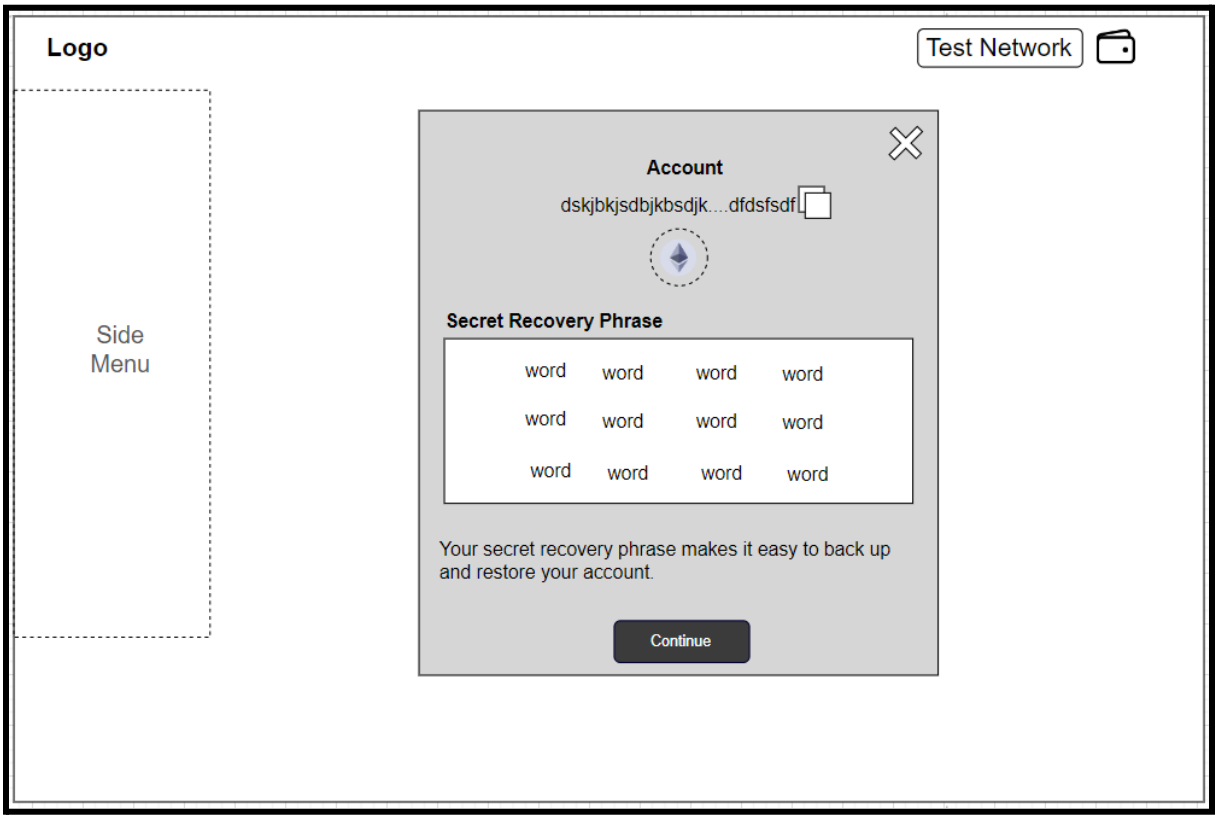
Web Wallet

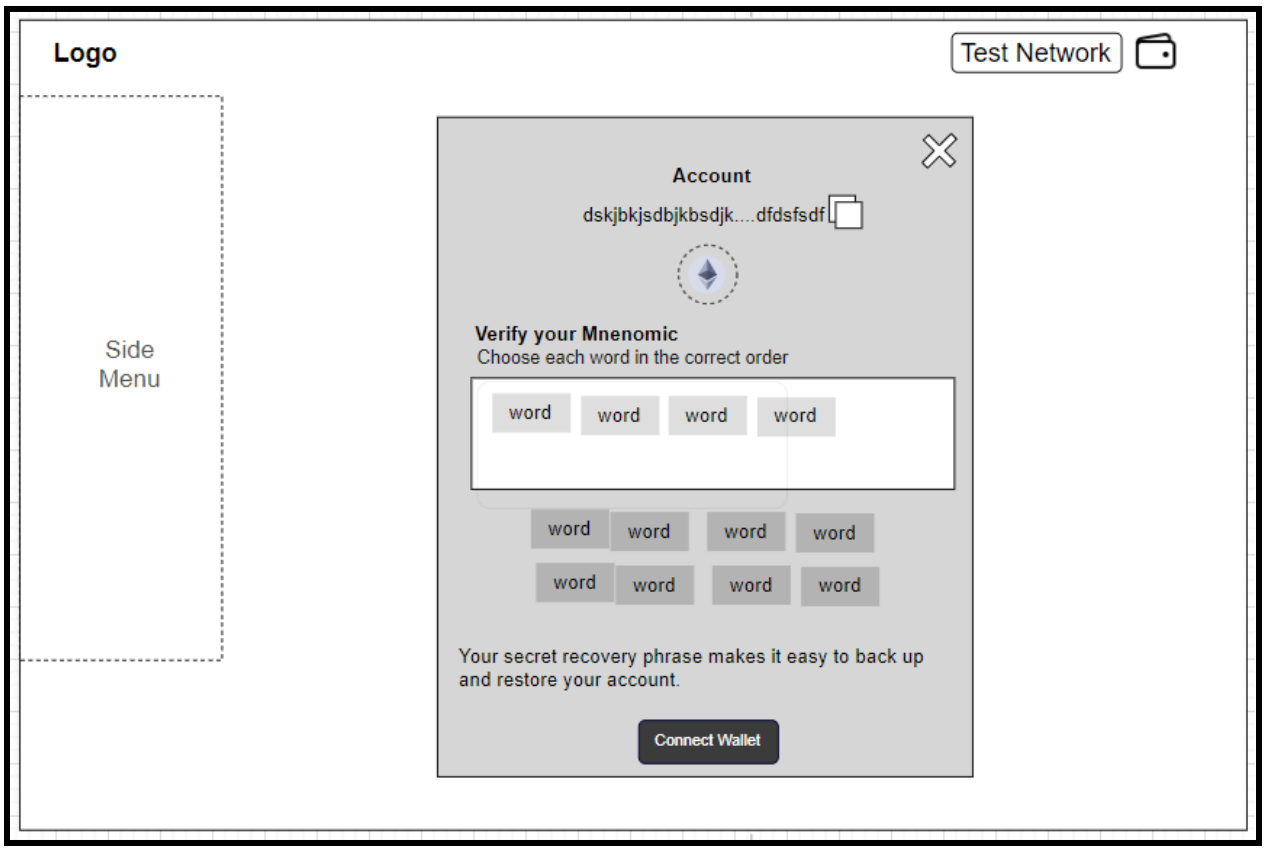


Restore Wallet: Users can restore their wallets using the 5irechain's mnemonic they already have.

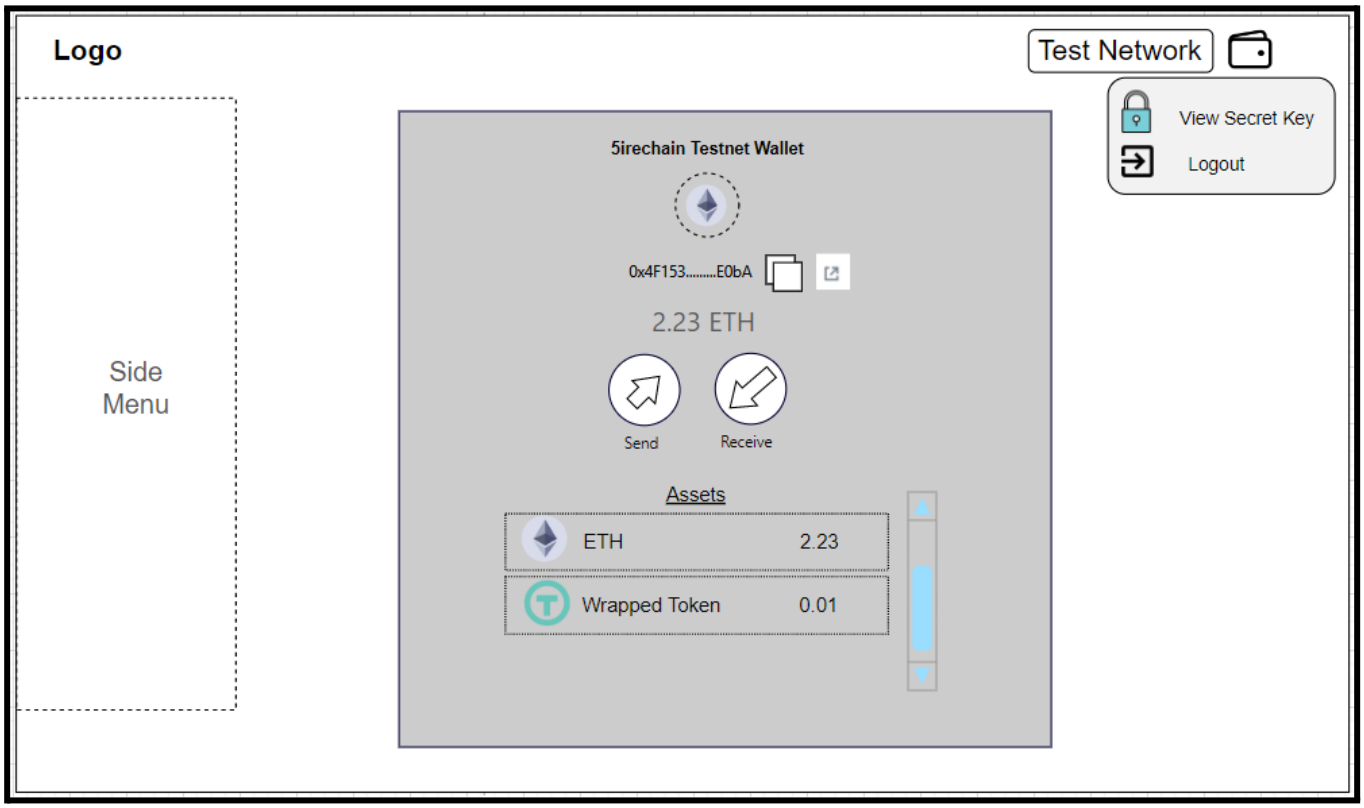
Create a new wallet: New users can create a wallet on the 5irechain blockchain. The below screen will be displayed for the new wallet details.

Verify mnemonic: Users creating a new wallet need to verify the mnemonic. The below screen will be displayed for the same.

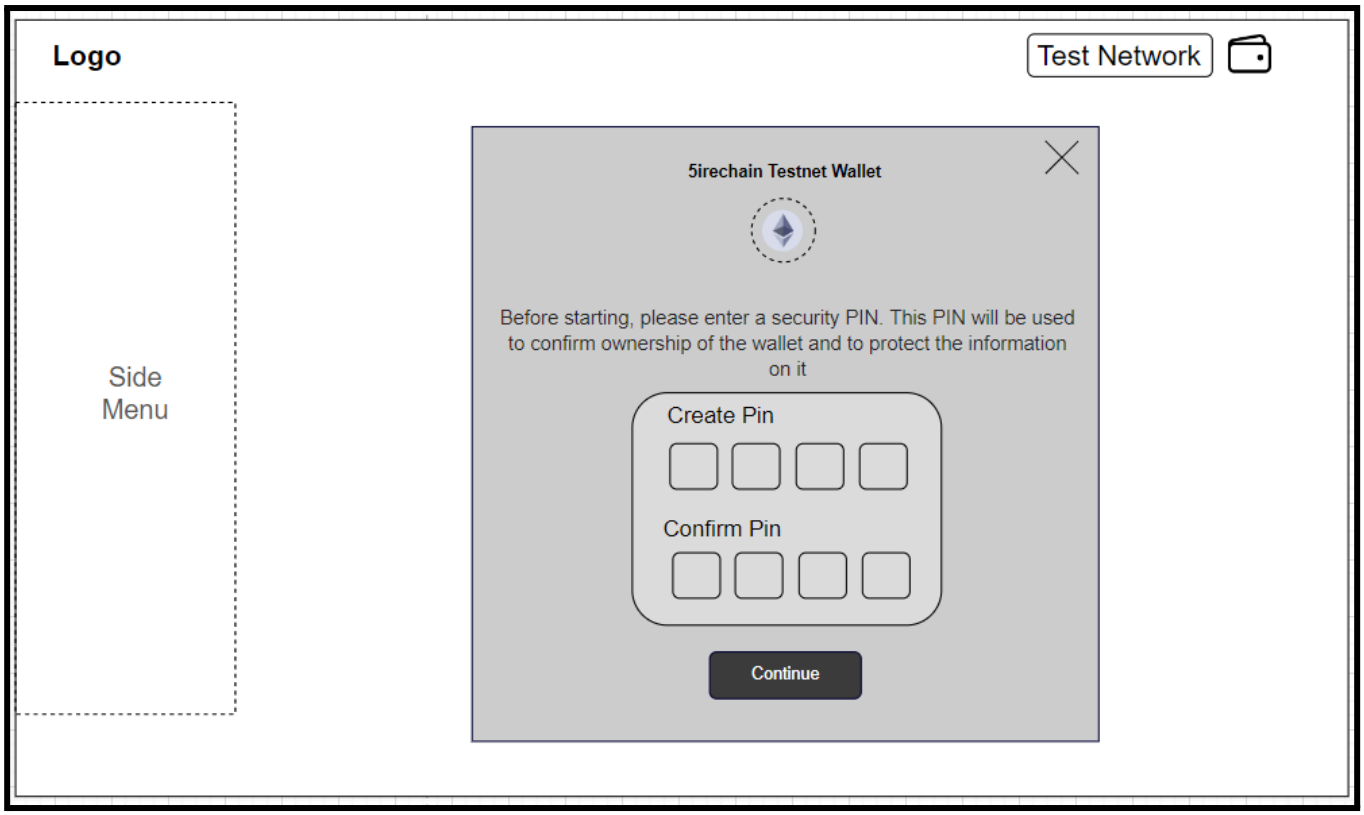




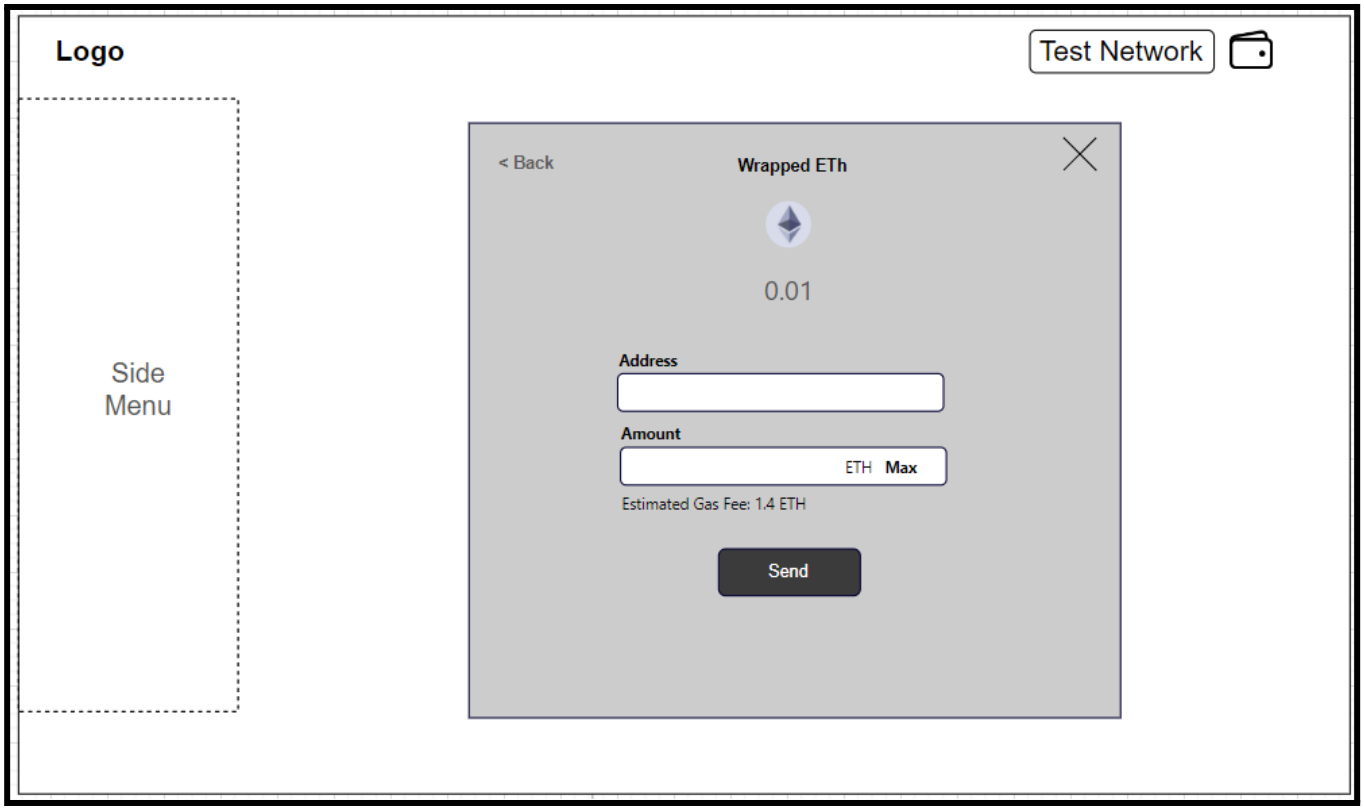
Wallet Details: Once the user logs in, then on the wallet click, the below wallet details screen will be shown. Users will be able to send and receive tokens using this wallet.



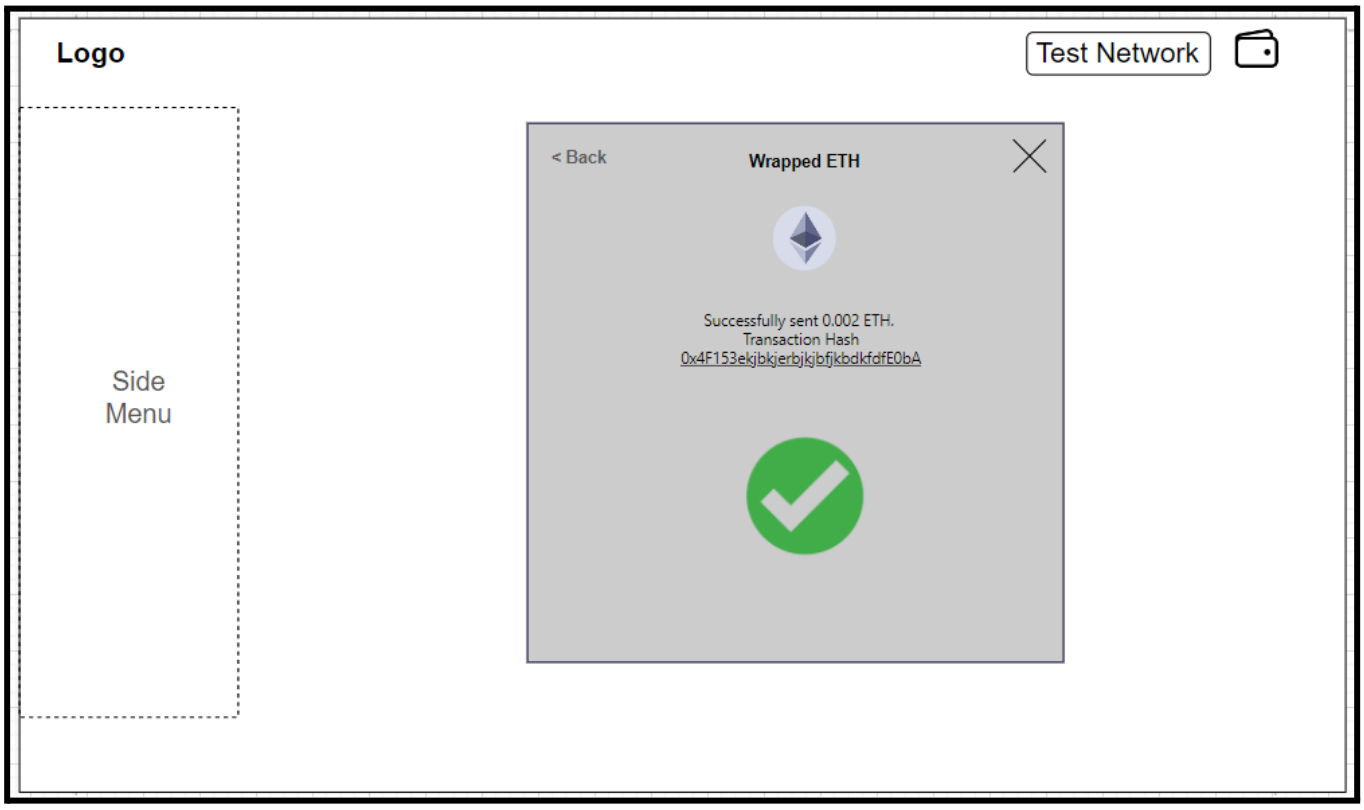
Create pin: Users will be able to create a pin for their web wallet. The pin will be stored on their local device. This pin will be handy for the users and can be used to log into the wallet. Users don't have to enter mnemonic every time.



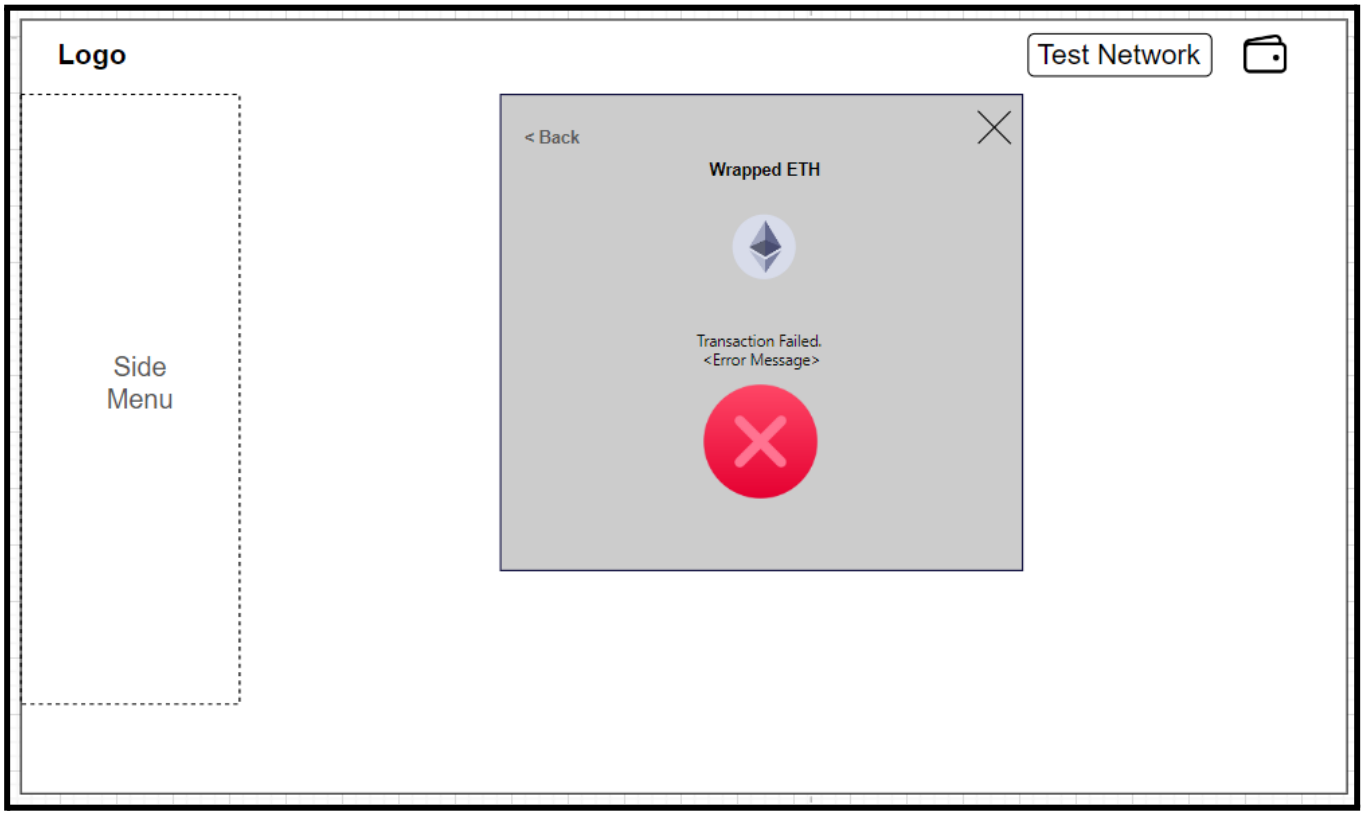
Send Token: For sending the coin/token, the users can utilize the below screen. In addition, the estimated fees in 5irechain's native coin will be shown to the users.



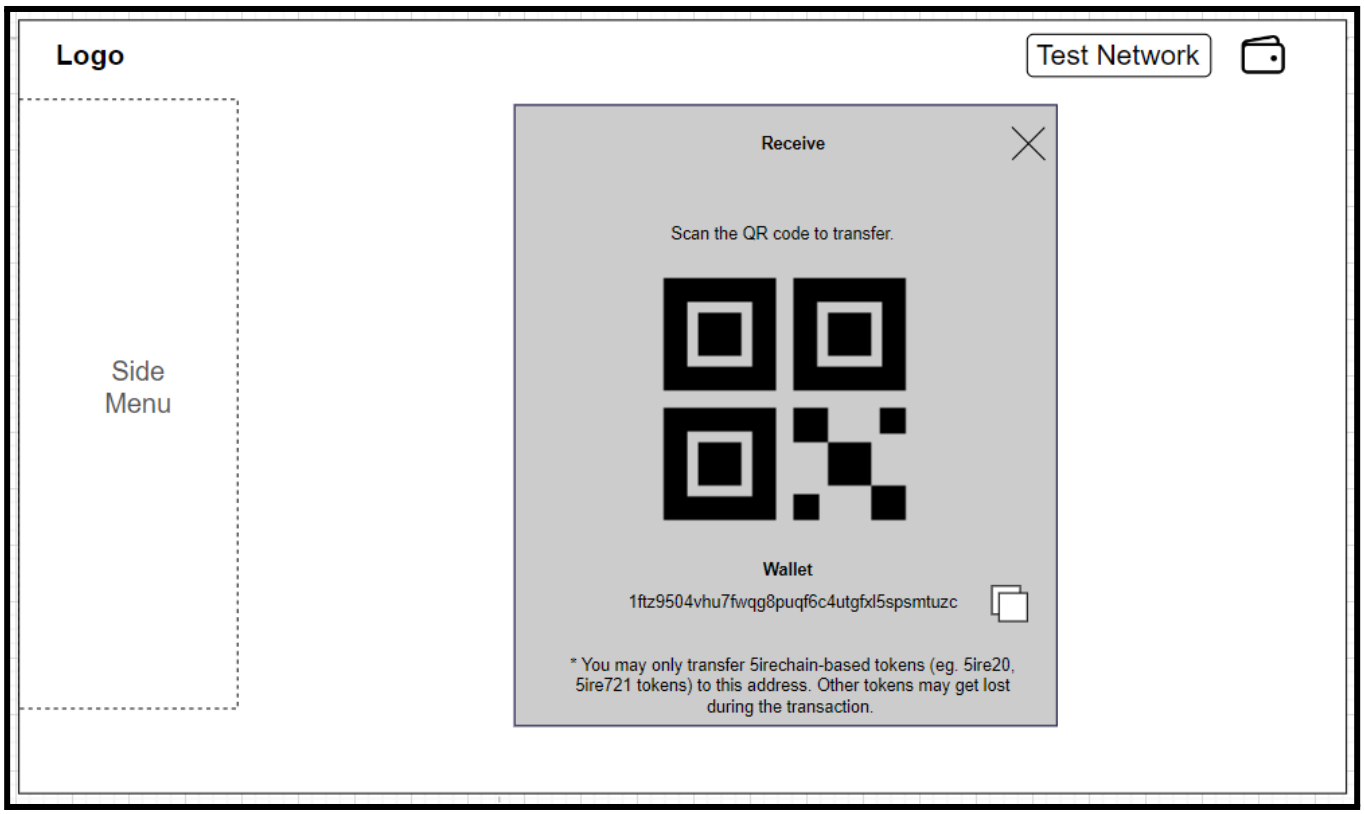
Transaction successful: When a transaction done by the user is successful, then the below screen will be displayed.



Failed Transaction: When a transaction is done by the user, and it is failed for some reason, then the below screen will be displayed.



Receive: Users can show this QR code screen to their peers to receive any token in their respective wallets.



Log in using pin: When the user refreshes their browser tab, then to log in again to their wallet, they need to enter the pin. If they forget the pin, they can restore the wallet using the mnemonic.