

Week 2

Laboratory 02

Stellar Technical Academy



Self – Assessment Exercises

Objectives

- This Laboratory exercise aims to familiarise you with the Stellar non-custodial wallet, xBull.
- More specifically, you will:
 - Create your own non-custodial wallet
 - Create its mnemonic phrase
 - Import your non-custodial wallet to a browser extension
 - Fund your account, and finally
 - Make a transaction with the non-custodial wallet
- If the set up of the wallet is correct and the transaction is successfully made, you will receive the second NFT certificate!

Self – Assessment Exercises

Introduction

- The aim of the Week 2 Laboratory exercise is to learn how to set up a non-custodial and make a transaction with it.
- In order to do so, you are going to use the xBull Wallet, a non-custodial wallet offered by Stellar, still in BETA stage.
- In the process, you will learn about the differences of a custodial and a non-custodial wallet.

Self – Assessment Exercises

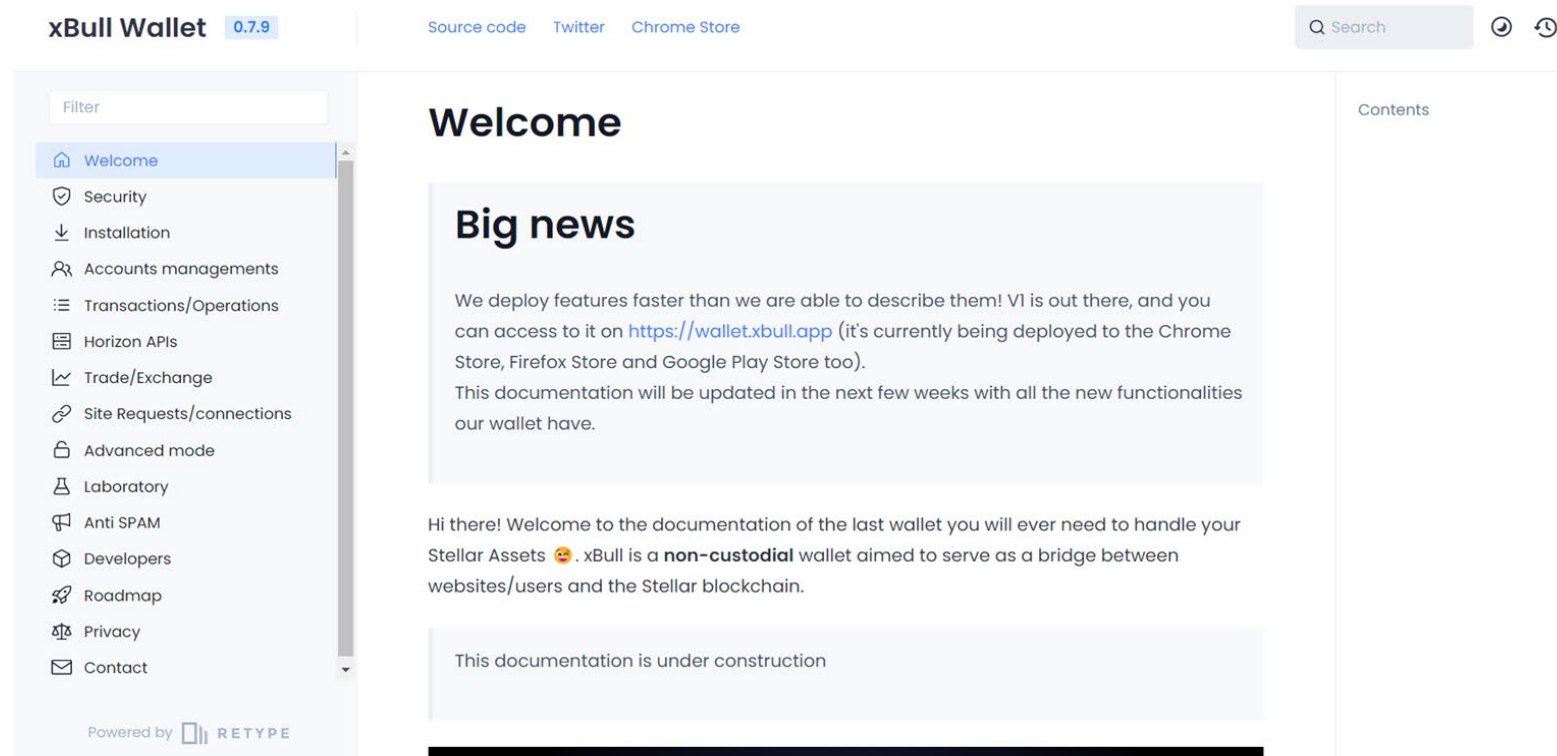
Exercise 1 – Set up a xBull non-custodial wallet

- **What is a non-custodial wallet?**
- A non-custodial wallet allows its user to have full control of their keys and does not store them or transmit them to any server, since all the signing is done locally.
- Non-custodial wallet users must have the ability to use their public and secret keys with other non-custodial wallets and purge any encrypted local storage of their key pairs.
- Non-custodial wallets have backup functionality via a recovery code or other means.
- **What is a custodial wallet?**
- A custodial wallet is a wallet that stores its user's secret key (or decryption key based on a passphrase) on any third-party server.
- This third-party server is usually operated by the wallet developers and the wallet clearly states its key storage mechanism before users sign up or install it.
- Custodial wallets ought to refuse any weak passphrases and must provide a thorough account recovery process.
- However, whether it is a custodial or a non-custodial wallet, every wallet must make its key status clear and be specific about the level of control users have of their keys.

Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

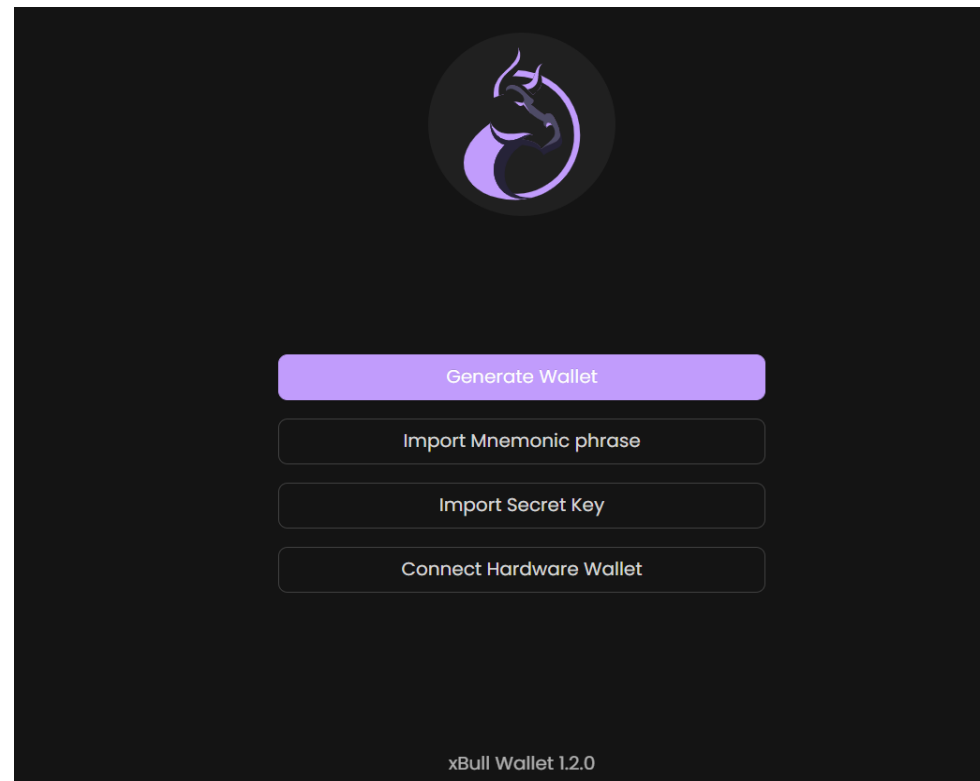
- Firstly, navigate to the [xBulll.app](https://wallet.xbull.app) to get accustomed with the non-custodial wallet.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

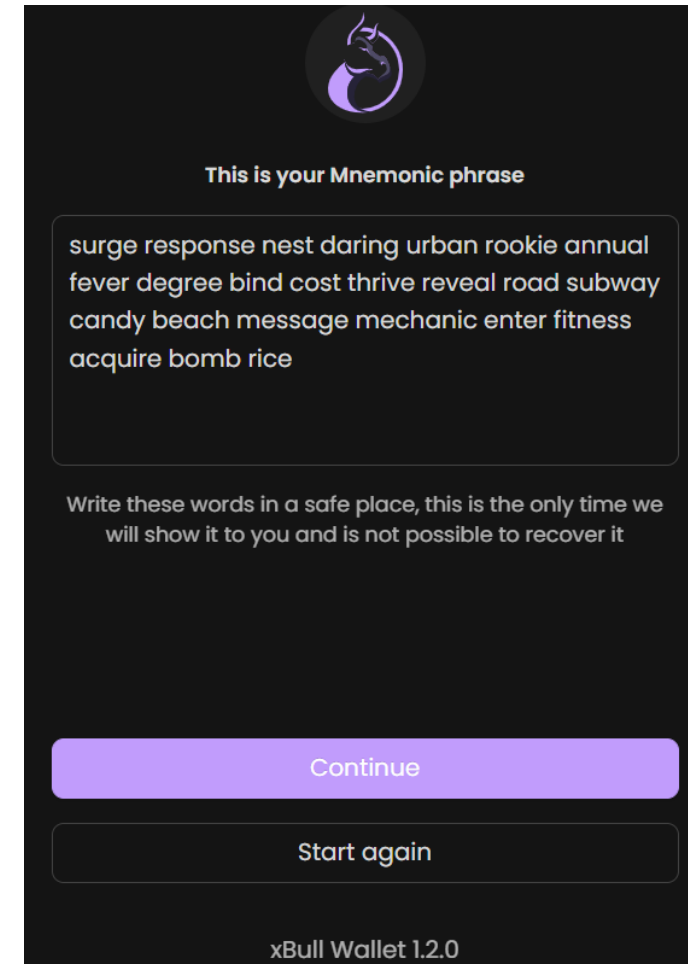
- Then, you are going to visit <https://wallet.xbull.app/create-account> in order to create your non-custodial wallet.
- Your landing page should look like the picture below. You are going to choose “Generate Wallet”.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

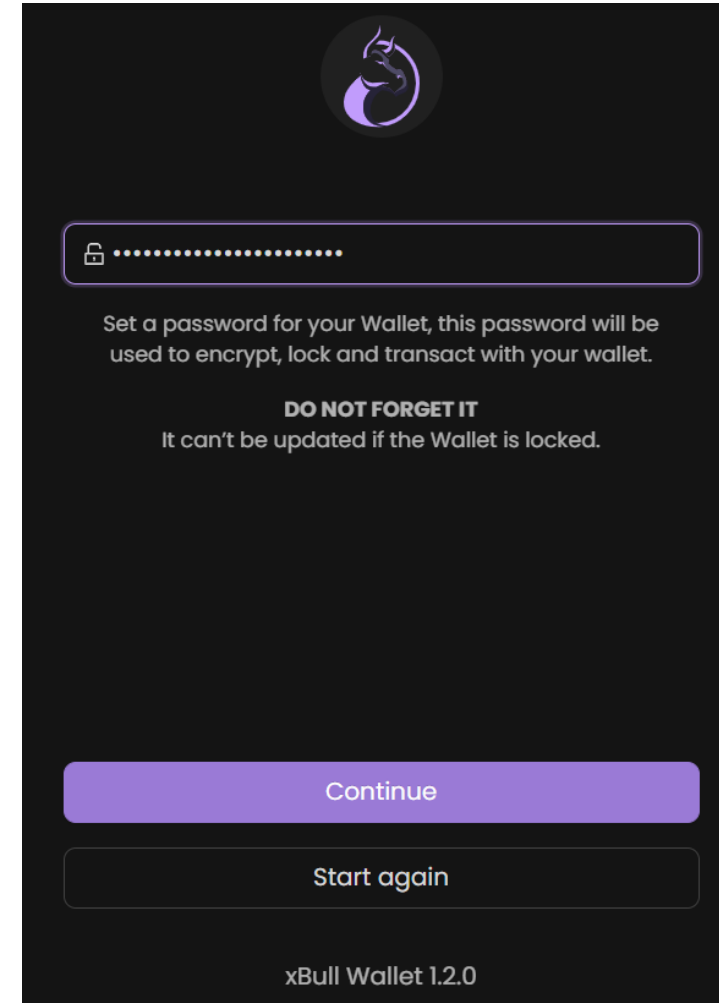
- Once you click on “Generate Wallet”, your Mnemonic Phrase is going to be revealed to you.
- Remember! You are the only one responsible for remembering and storing your mnemonic phrase and no one else has access to it.
- You should always make sure that you store your mnemonic phrase somewhere safe, like a piece of paper in a secure storage and avoid risky methods like copy-paste or storing it online.
- Also, make sure that you never lose or forget your mnemonic phrase. Unfortunately, there is no way to recover it once you lose it or forget it.
- Then, you can click on the “Continue” button.




Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

- Then, you are going to set up your password.
- This password will be used to encrypt, lock and transact with your wallet, so it is important that you do not forget it.

The image shows a dark-themed mobile application interface for setting up a wallet. At the top is a circular logo with a stylized purple bull head. Below it is a password input field with a lock icon and a series of dots. The text below the field reads: "Set a password for your Wallet, this password will be used to encrypt, lock and transact with your wallet." followed by "DO NOT FORGET IT" and "It can't be updated if the Wallet is locked." At the bottom are two buttons: a purple "Continue" button and a white "Start again" button. The version "xBull Wallet 1.2.0" is displayed at the very bottom.



Set a password for your Wallet, this password will be used to encrypt, lock and transact with your wallet.

DO NOT FORGET IT
It can't be updated if the Wallet is locked.

[Continue](#)

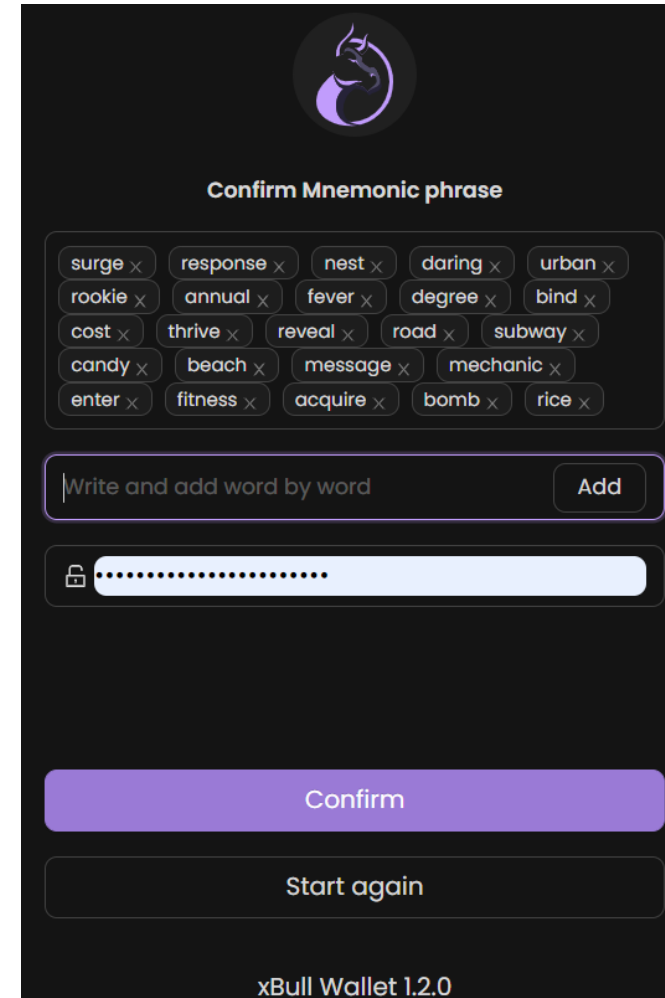
[Start again](#)

xBull Wallet 1.2.0

Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

- Now, you are going to be asked to separately type your mnemonic phrase add word by word to confirm it, as well as your password that you just set up.
- Once you do so successfully, you can click on 'Confirm'.

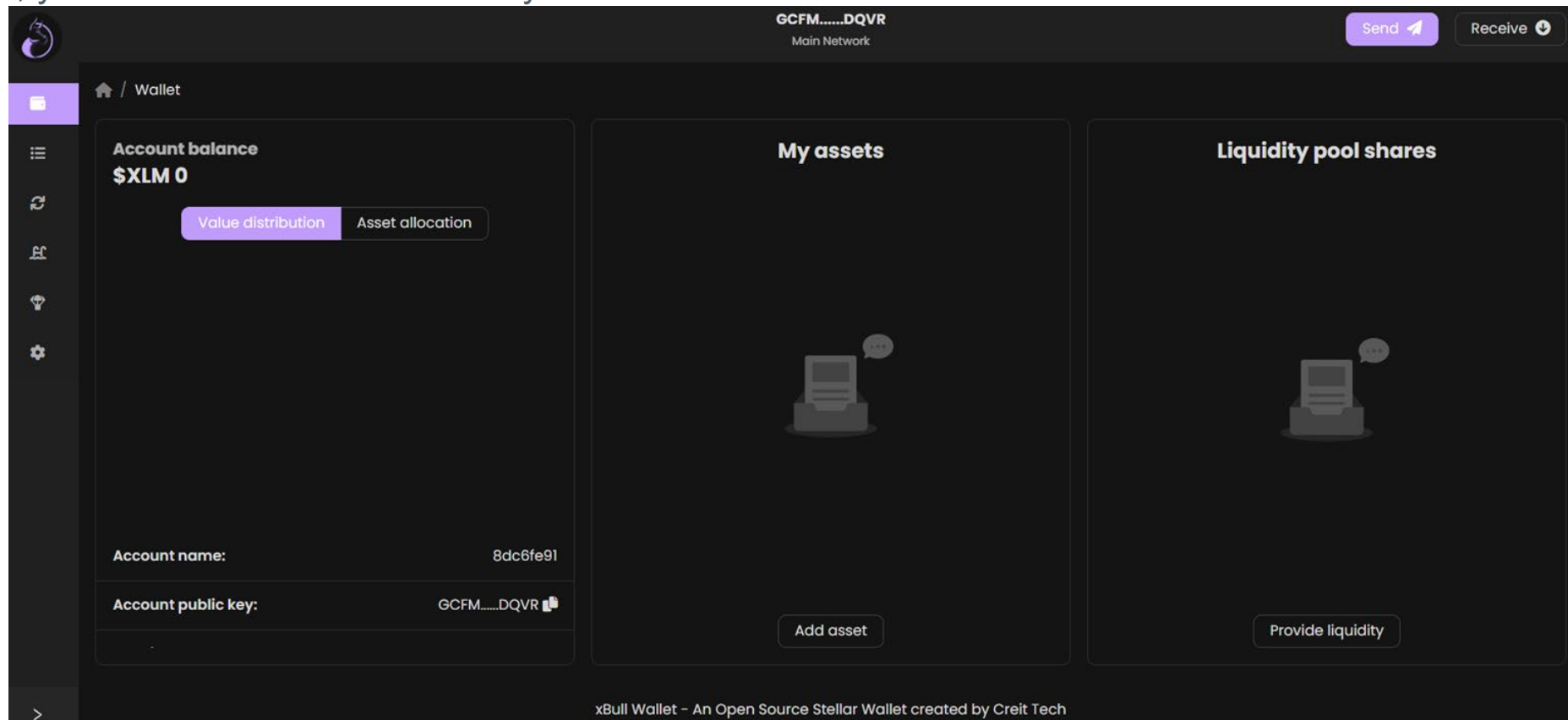


The image shows the xBull Wallet 1.2.0 interface during the mnemonic phrase confirmation step. At the top is the xBull logo. Below it, the text "Confirm Mnemonic phrase" is displayed. A grid of 20 words is shown, each with a small 'x' icon to its right, indicating they can be removed. The words are: surge, response, nest, daring, urban, rookie, annual, fever, degree, bind, cost, thrive, reveal, road, subway, candy, beach, message, mechanic, enter, fitness, acquire, bomb, and rice. Below the grid is a text input field with the placeholder "Write and add word by word" and an "Add" button. Underneath is a password field with a lock icon and a series of dots. At the bottom are two buttons: "Confirm" (highlighted in purple) and "Start again". The version "xBull Wallet 1.2.0" is printed at the very bottom.

Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

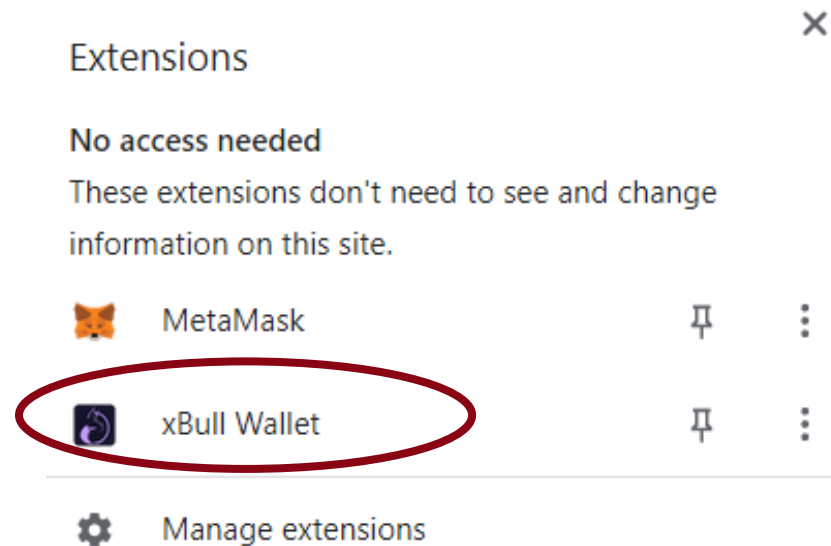
- If you have done all these steps successfully so far, congratulations! You have created your own wallet.
- Now, you can see the dashboard of your account.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

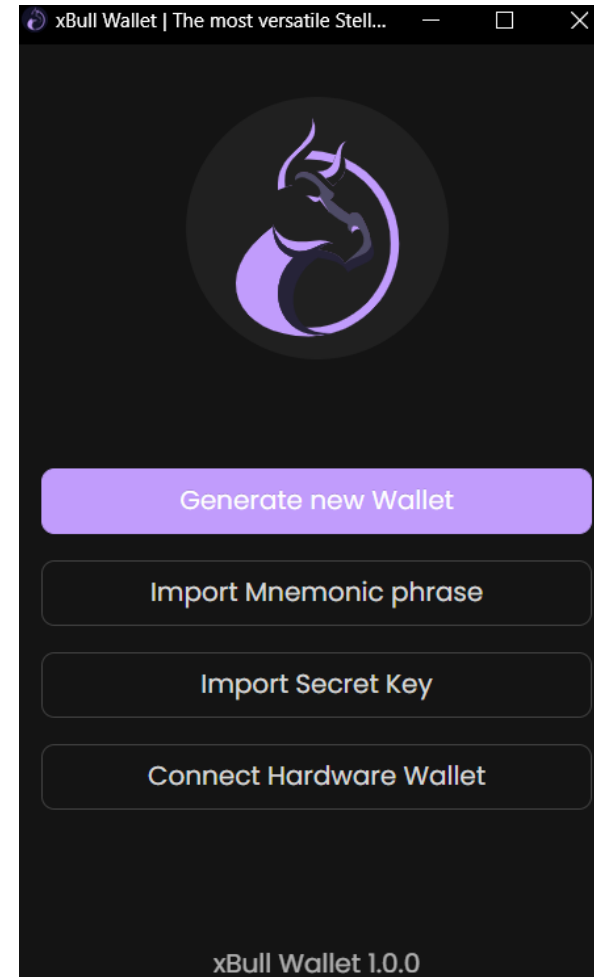
- Up next, you are going to install the browser extension and make your very first transaction.
- For Google Chrome, you are going to install this extension: <https://chrome.google.com/webstore/detail/xbull-wallet/omajpeaffjgmlpmhbfjdjepdejoemifpe> .
- For Firefox, you are going to install this extension: <https://addons.mozilla.org/es/firefox/addon/xbull-wallet/> .



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

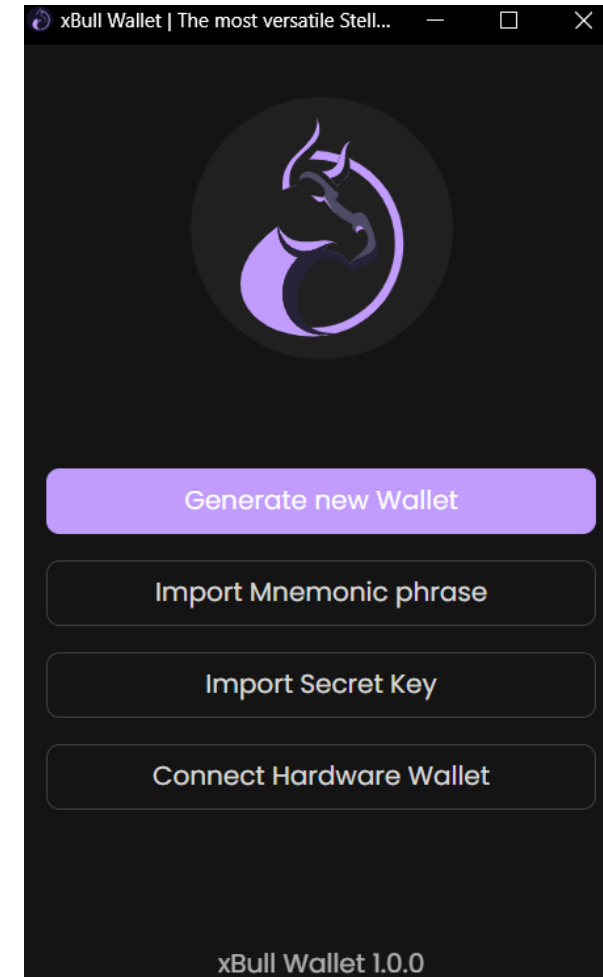
- The exercise is based on the Google Chrome extension, but feel free to work on Firefox as well.
- Once the extension is successfully installed, click on it and open it.
- A pop up window will appear like this one and you will click on 'Import Mnemonic Phrase'.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

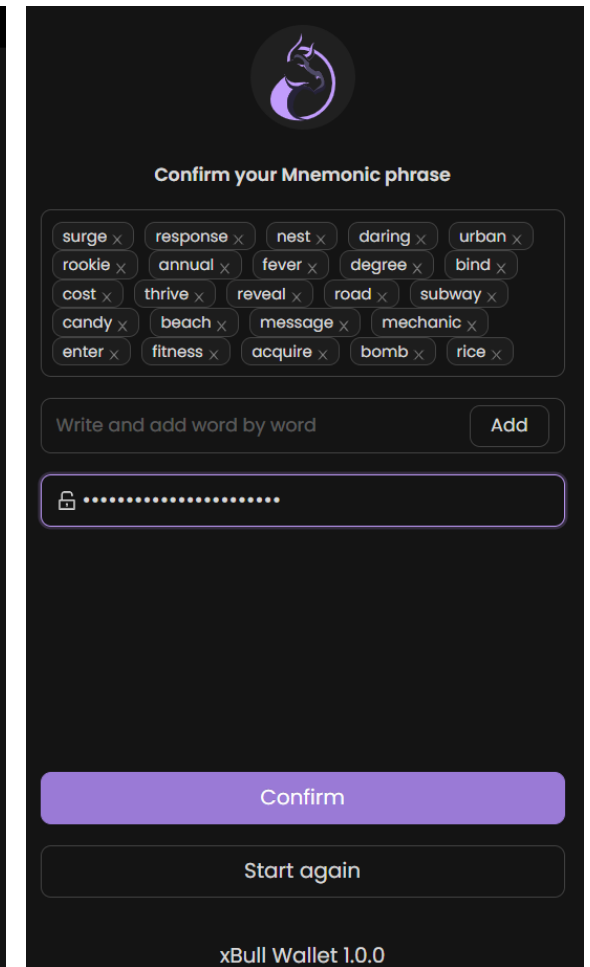
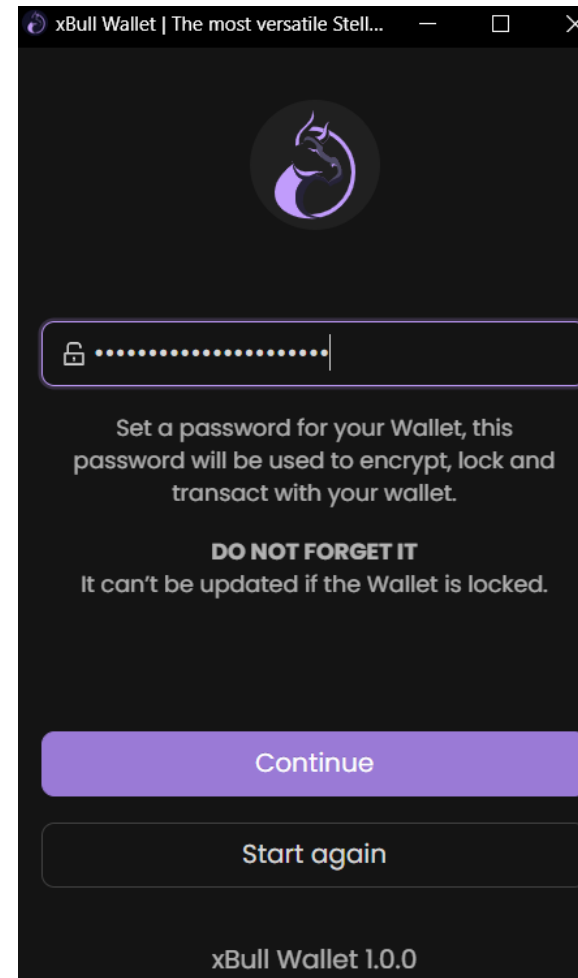
- The exercise is based on the Google Chrome extension, but feel free to work on Firefox as well.
- Once the extension is successfully installed, click on it and open it.
- A pop up window will appear like this one and you will click on 'Import Mnemonic Phrase'.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

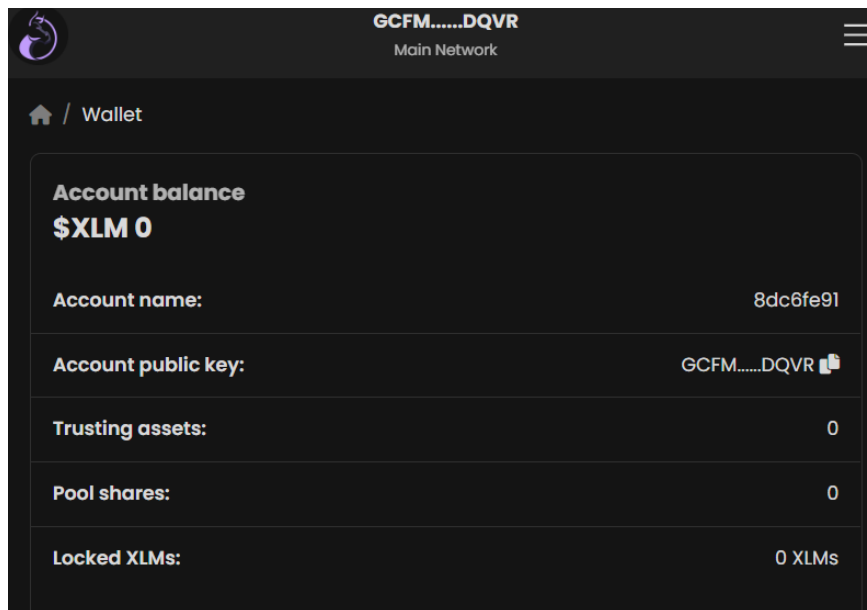
- Once you click on it, you are going to be asked to type your password.
- Then click on 'Continue' and fill in the same form with the Mnemonic Phrase and the password.
- You are now going to see the dashboard that you saw previously.
- Congratulations! That means that your wallet has been successfully imported.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

- Moving on, you are going to fund your account using the Friendbot and the testnet, as we did in the Week 1 Laboratory.
- In order to do so, you copy your public key from the extension and you paste it in the Friendbot field.



Friendbot: Fund a test network account

The friendbot is a horizon API endpoint that will fund an account with 10,000 lumens on the test network.

GCFMDKGWQ3BTO4PBCGWMBYK2CV46CNV

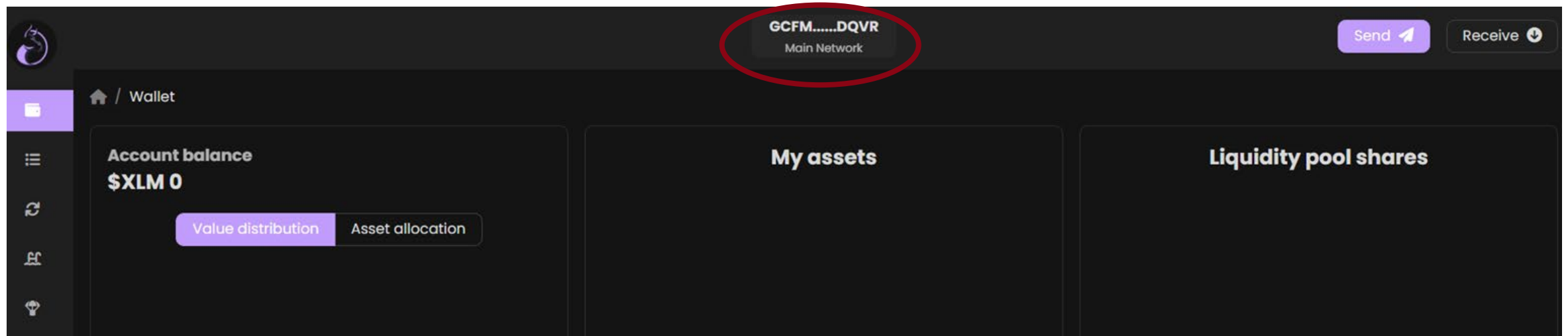
Get test network lumens

Successfully funded GCFMDKGWQ3BTO4PBCGWMBYK2CV46C on the test network

Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

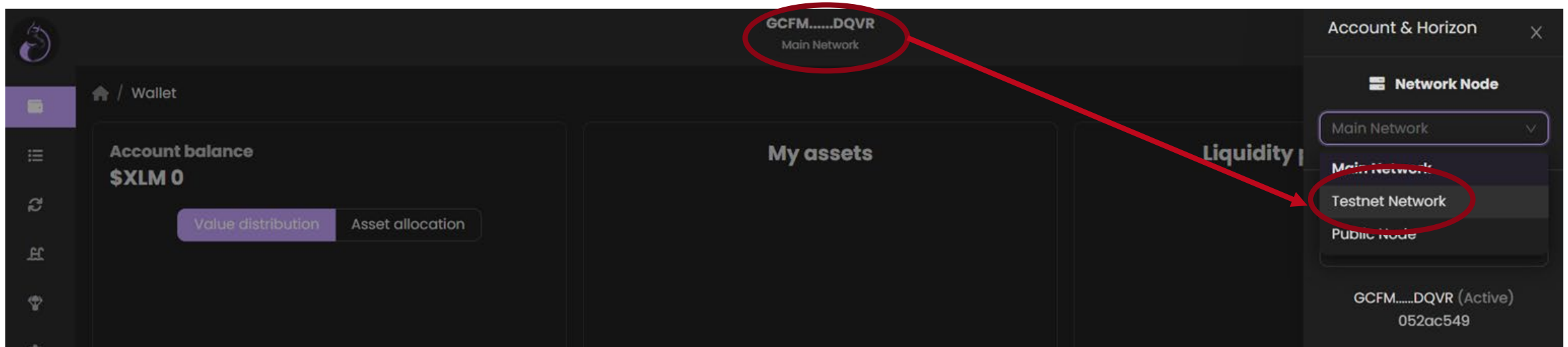
- Now, you are going to check whether your account has indeed been funded.
- When you first open your xBull wallet extension, you will notice that it runs on the Main Network.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

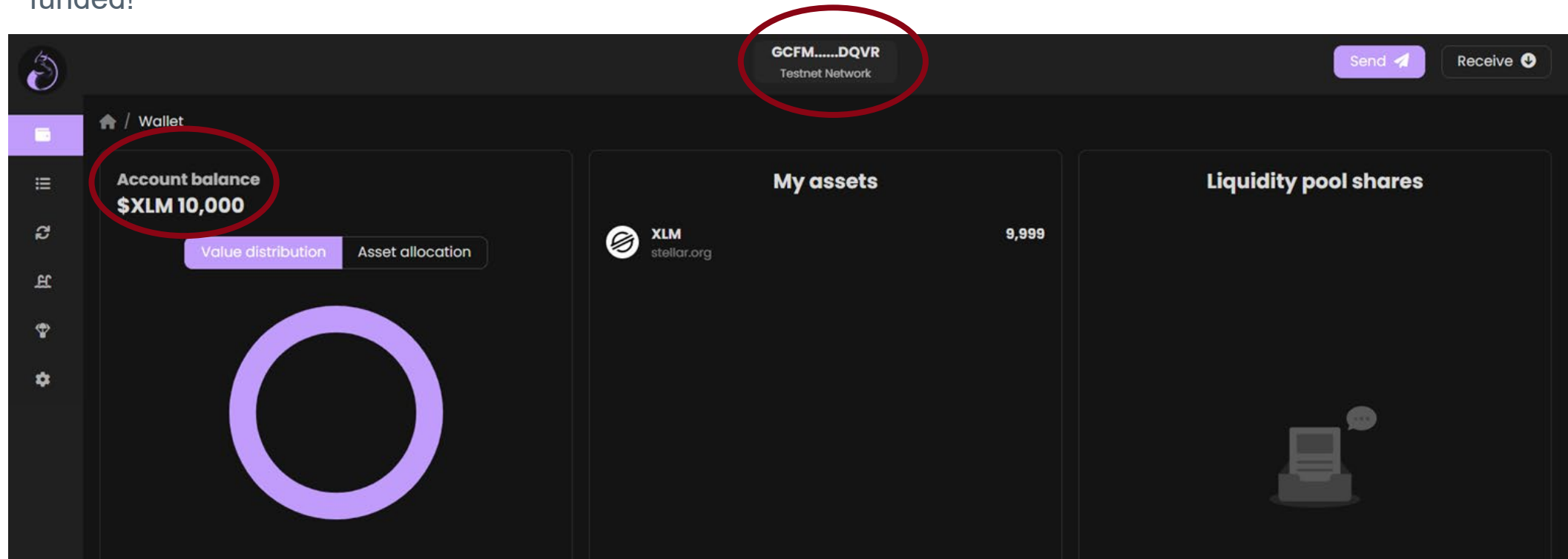
- Since your account was funded with the Friendbot on the testnet, your wallet should also operate on the test network.
- In order to change your network from 'Main Network' to 'Testnet Network' just click on the 'Main Network' area and choose 'Testnet Network' from the dropdown button.



Self – Assessment Exercises

Exercise 1 – Set up a xBull non-custodial wallet

- Once you change your network to the Testnet Network, you will find that your account has been successfully funded!



Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

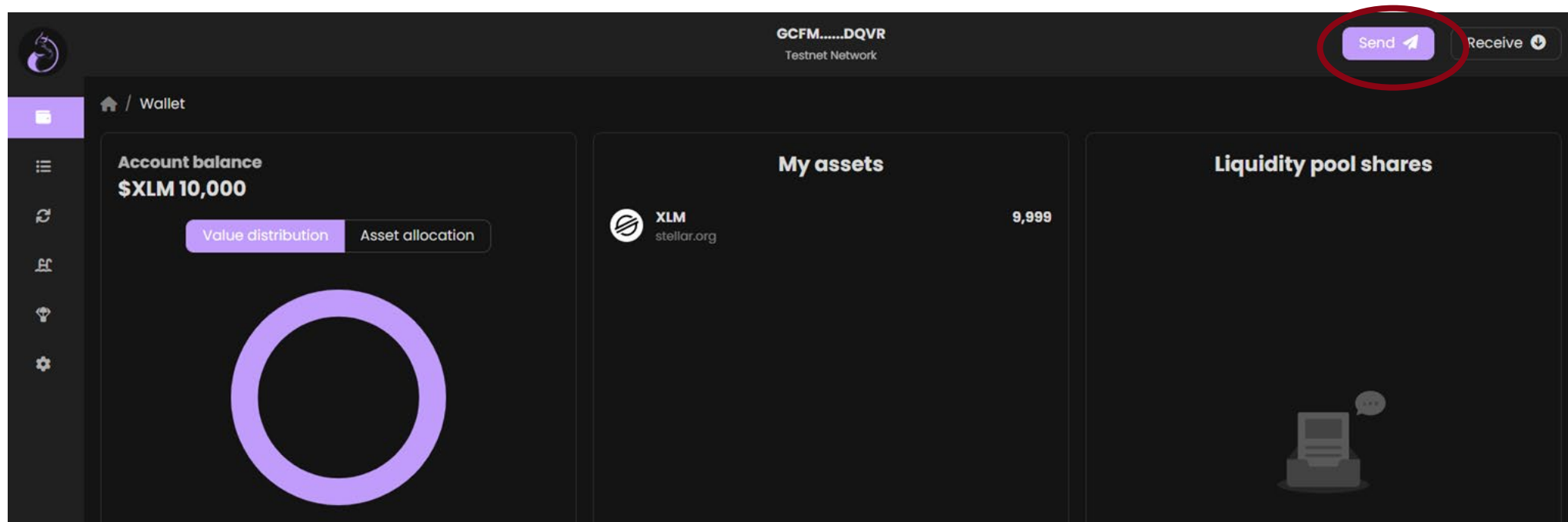
- Now that your xBull non-custodial wallet is created and funded, you are going to make a transaction.
- We have already created a destination account which you are going to transact with.
- The public key of the destination account you are going to use is:

GDBOTYDUAXYHO2QLXZCPJUYS3JRDHJL7P7WYQUKMLPBXITUQO5GYZWLN

Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

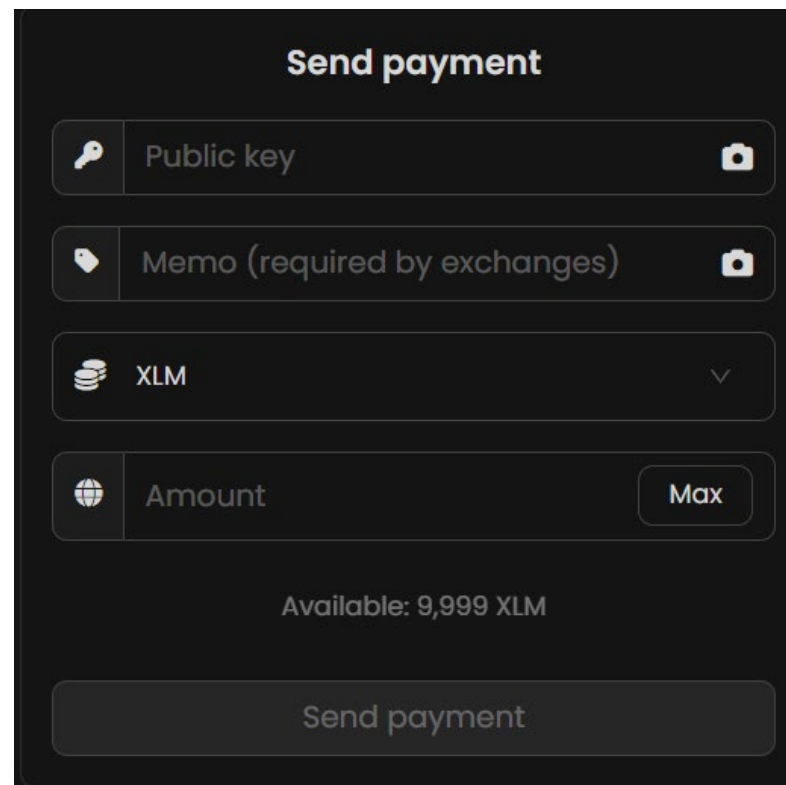
- So, making a transaction in the xBull non-custodial wallet is pretty simple.
- As you can imagine, the first step you are going to take is the hit the 'Send' button on the landing page.



Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

- Once you press the ‘Send’ button, you are going to be directed to a new page, looking like this one:





The screenshot shows a dark-themed mobile interface for sending a payment. At the top, the title 'Send payment' is centered. Below it are four input fields, each with an icon on the left and a camera icon on the right: 'Public key' (key icon), 'Memo (required by exchanges)' (tag icon), 'XLM' (stack of coins icon), and 'Amount' (globe icon). A 'Max' button is located to the right of the 'Amount' field. Below these fields, the text 'Available: 9,999 XLM' is displayed. At the bottom, there is a large 'Send payment' button.



Self – Assessment Exercises



Exercise 2 – Make a transaction with a non-custodial wallet


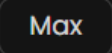
- In the first field, you are going to put the destination address, which is the public key of the account you are going to send currency to. In this case, you will use the same destination account as in Laboratory 1:
GDBOTYDUAXYHO2QLXZCPJUYS3JRDHJL7P7
WYQUKMLPBXITUQO5GYZWLN
- In the memo field, write 'Chapter I – [your name]'.
- Then, in the amount field, write the amount of the XLM you are going to send, e.g., 25.
- After you are finished, click on the 'Send payment' button.

Send payment

 GDBOTYDUAXYHO2QLXZCPJUYS3JRDHJL7P7WYQUKMLPBXITUQO5GYZWLN 

 Chapter I - Unic <> Stellar 

 XLM 

 25 

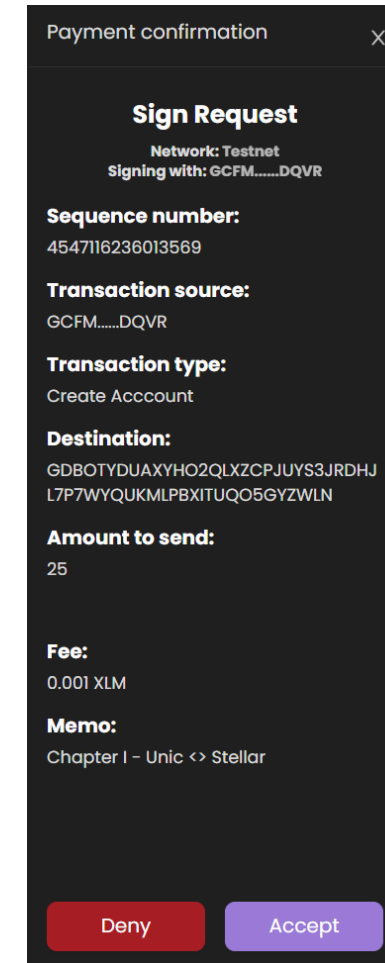
Available: 9,999 XLM

Send payment

Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

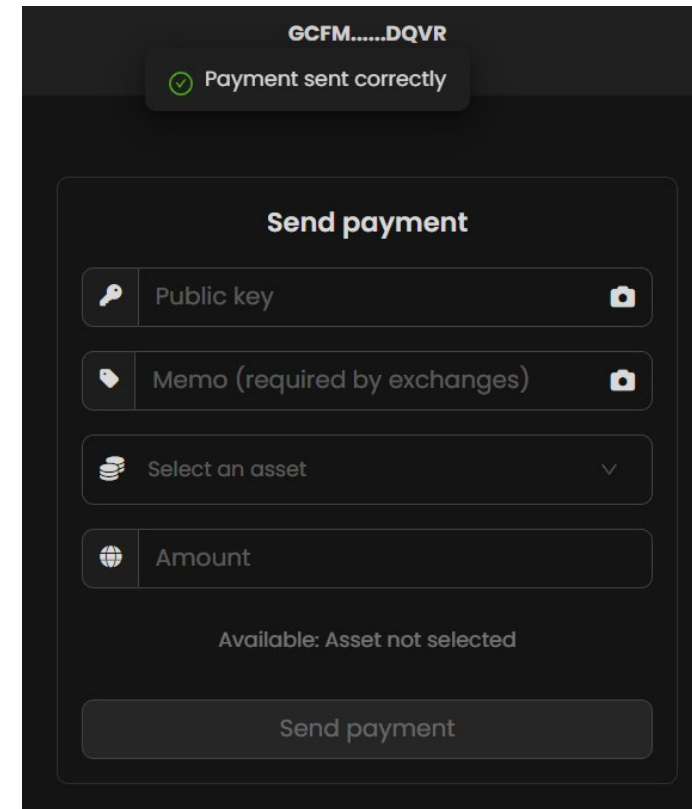
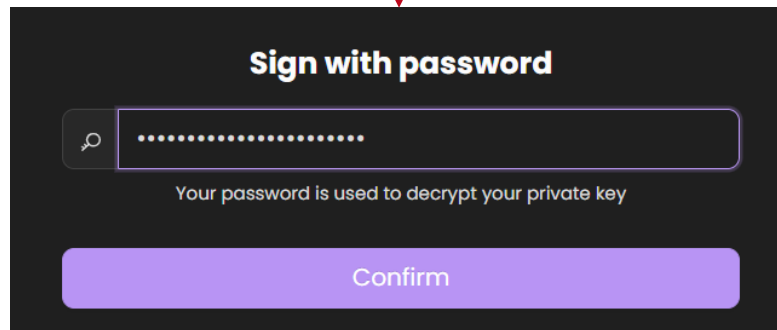
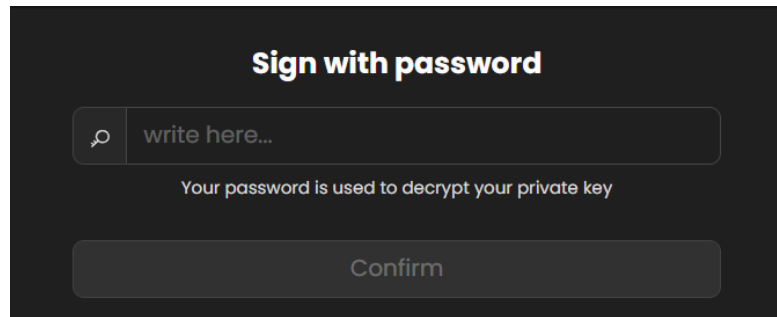
- A pop-up window with the payment confirmation, like this one, should appear. Check if everything is correct and then proceed on clicking 'Accept'.



Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

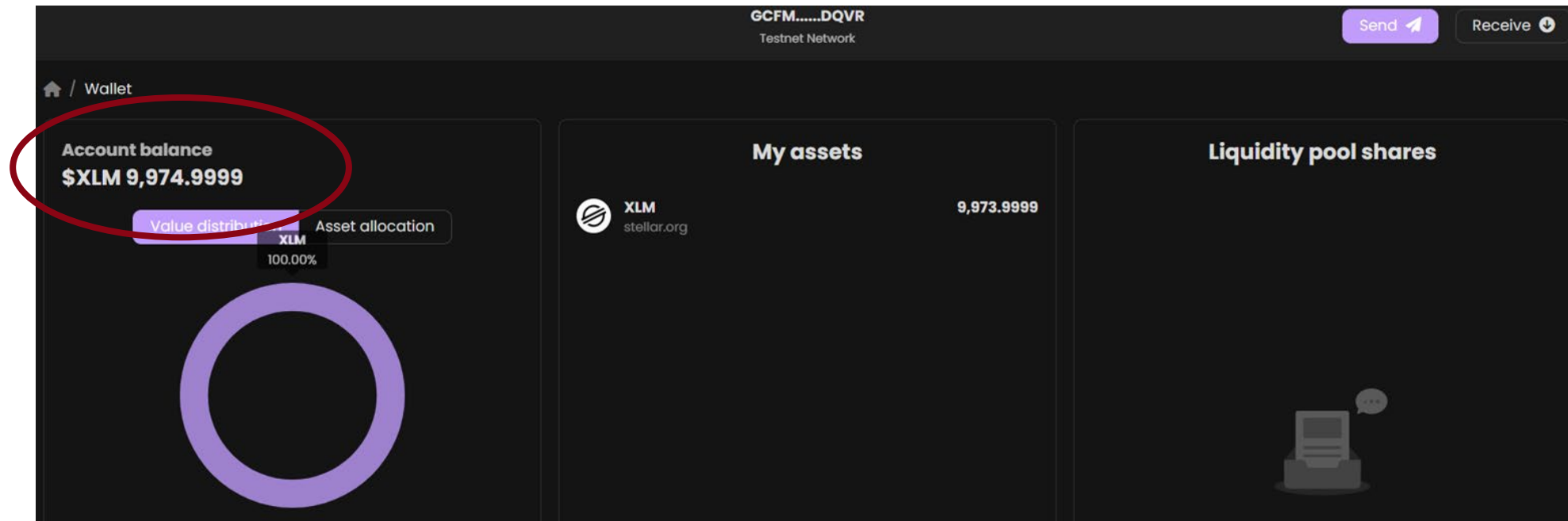
- Once more, you will be asked to sign with your password.
- If you type your password correctly, you will see that the payment was sent successfully!



Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

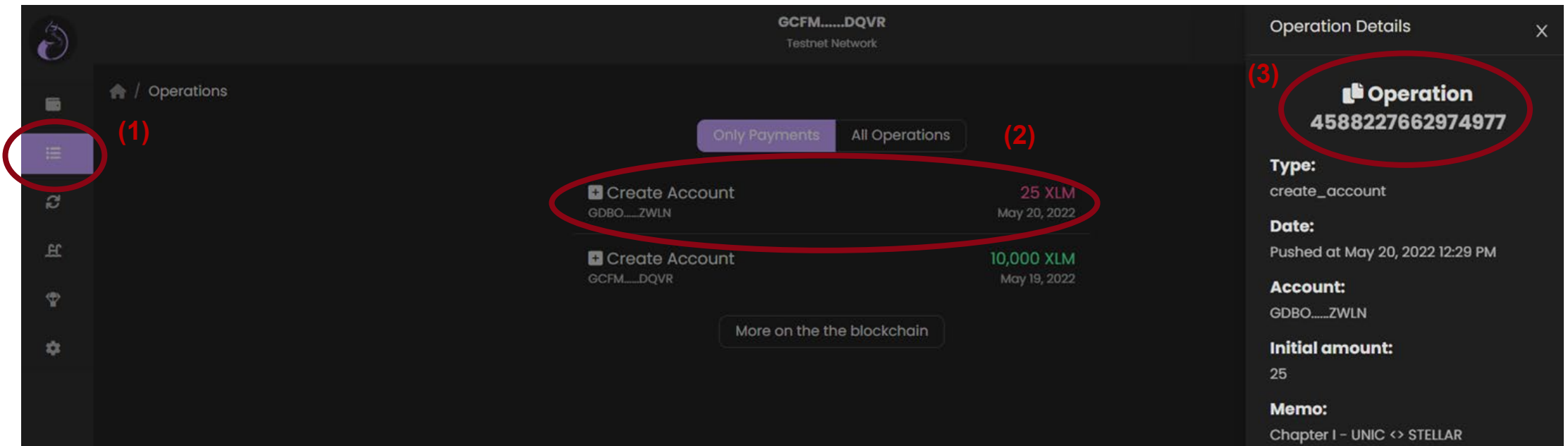
- Last but not least, once you go back to the dashboard page, you will see that your balance has been reduced by the amount of XLMs that you sent out!



Self – Assessment Exercises

Exercise 2 – Make a transaction with a non-custodial wallet

- Now that you have finished the Week 2 Laboratory, head over to 'Operations' (1 below) and click on the operation you just did (2). Then copy the Operation ID (3) from the pop-up window and paste it into Moodle, in order for us to make sure that you successfully completed the exercise.



Questions?

Contact Us: [Stellar Developers Discord](#)

Twitter: [@StellarOrg](#)



UNIC|DLRC



Stellar