



# LESSON INTRO 2 – Your First Transaction

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# Intro

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In this lesson we are going to do the following:

- 1. Create a Blockchain Wallet**
- 2. Acquire some ETH**
- 3. Make a Transaction**

# What is a Blockchain Wallet

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In blockchain, a wallet is a digital tool that allows users to securely store, manage, and interact with their cryptocurrencies and blockchain assets. A wallet does not physically hold cryptocurrencies, instead, it manages the private and public keys that enable users to access and control their funds on the blockchain.

## How Does a Wallet Work?

**Public Key:** A wallet generates a public key, which acts like a bank account number.

**Private Key:** The private key is like a password that grants access to the wallet's funds and allows signing transactions. It must be kept secret, as anyone with access to it can control the funds.

**Blockchain Interaction:** Wallets interact with the blockchain by sending and receiving transactions. The actual cryptocurrency remains on the blockchain, while the wallet provides the interface to manage it.

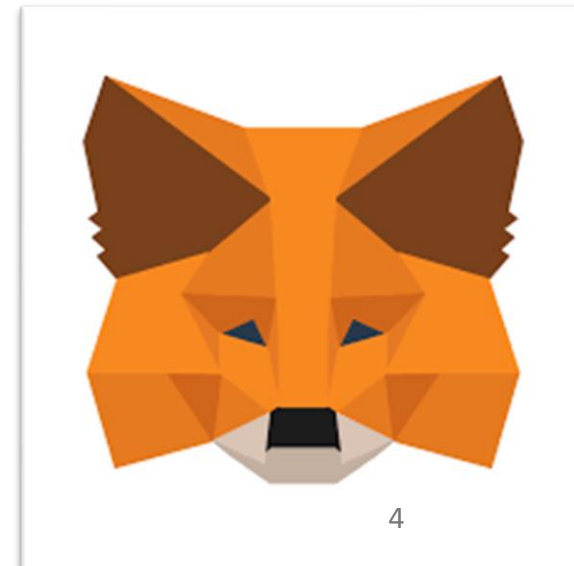
**Address:** A simplified, user-friendly representation of the public key. It is used for sending and receiving cryptocurrencies and tokens on the blockchain.

# What is MetaMask?

MetaMask is a popular Blockchain Wallet and gateway to the Ethereum blockchain. It allows users to manage their ETH and other tokens, interact with DApps, and perform transactions all from a web browser or mobile device.

MetaMask acts as a bridge between your web browser and the Ethereum blockchain, making it easy to interact with SCs and DApps directly from your browser without the need for a separate client or node.

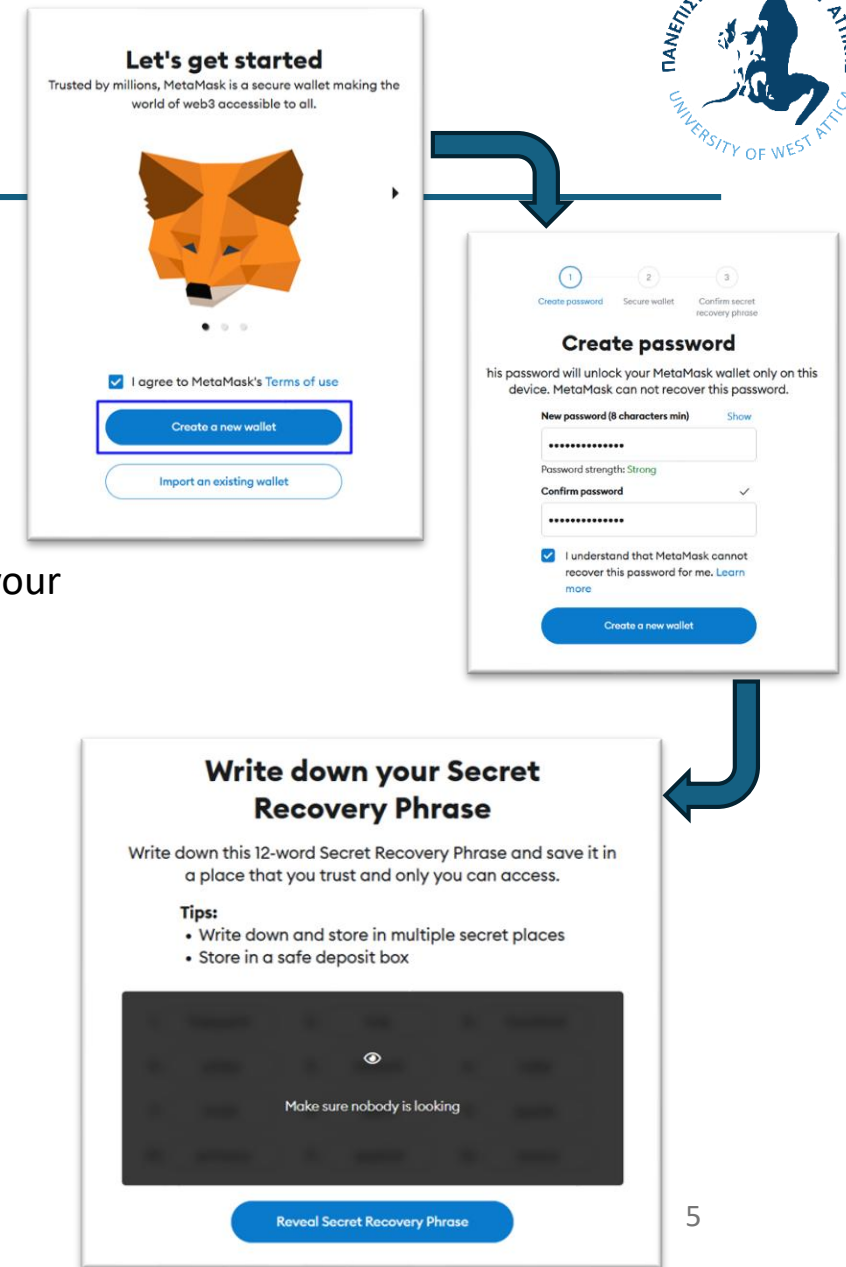
We will use MetaMask during this course so download and install it as a browser extension.



# Creating a Wallet

The process of creating a MetaMask Wallet is the following:

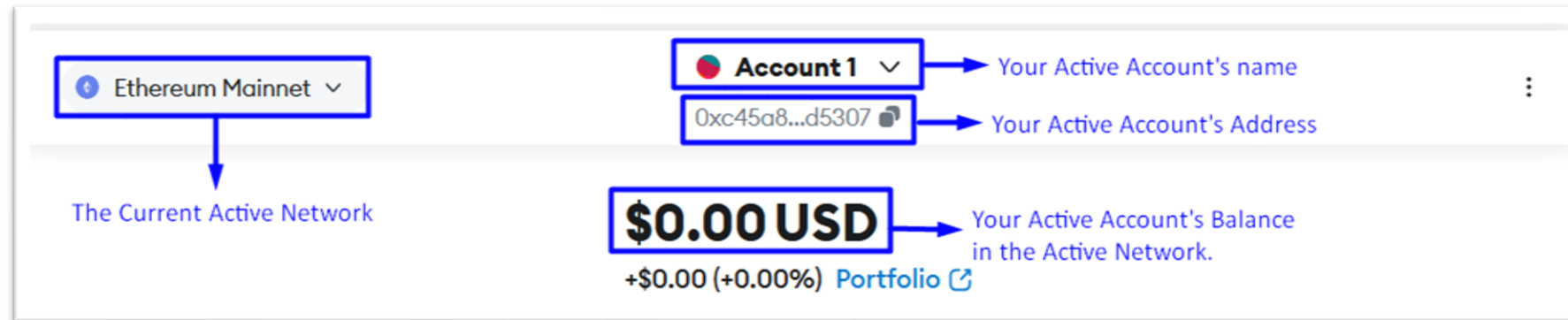
1. Create a new Wallet.
2. Create your Password.
3. Secure your Wallet with a **Secret Recovery Phrase**:
  - Secret Recovery Phrase is a 12-word phrase that is the “master key” to your wallet and your funds.
  - Never, ever share your Secret Recovery Phrase, not even with MetaMask.
  - Do not lose your Secret Recovery Phrase (Store it somewhere secure)
4. Enable the extension.



# Wallet Information

In the main screen of MetaMask, you can see:

1. The Active Network (currently Ethereum Mainnet).
2. Your Active Account with its Address.
3. Your Active Account's Balance.

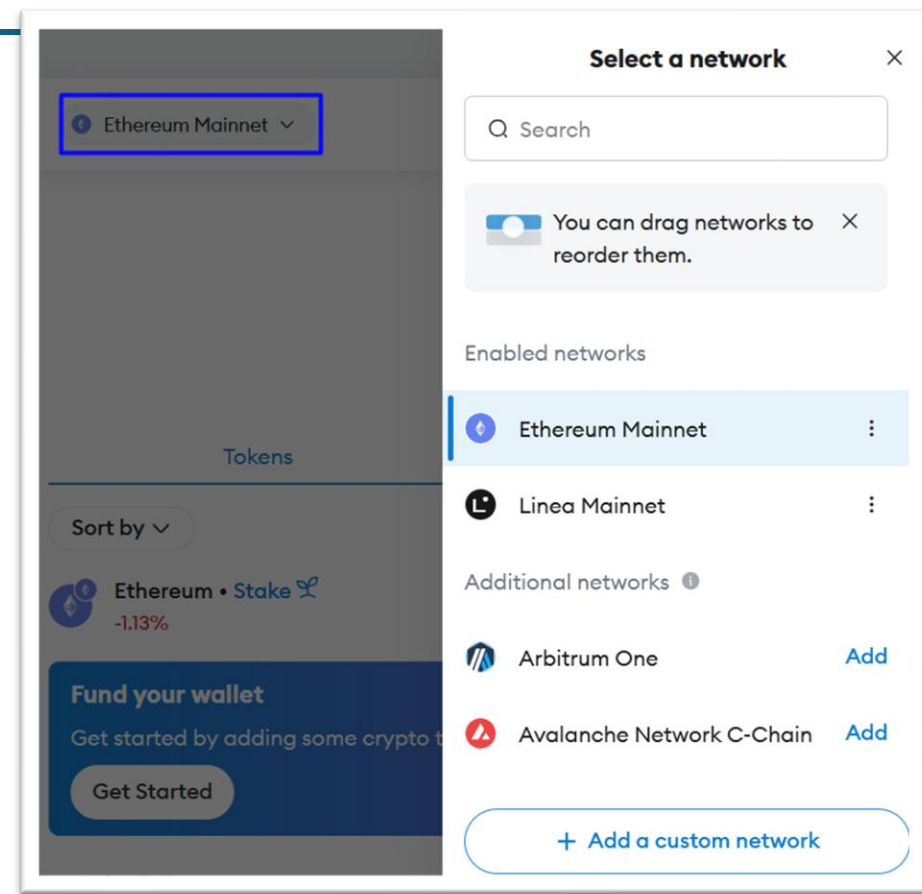


# Changing Network

There are multiple Ethereum-based (or EVM-compatible) blockchains and all of them are available in MetaMask. You can change the network by clicking on the current network button and click the network of your choice.

We are going to change the active network to the Sepolia test network (testnet).

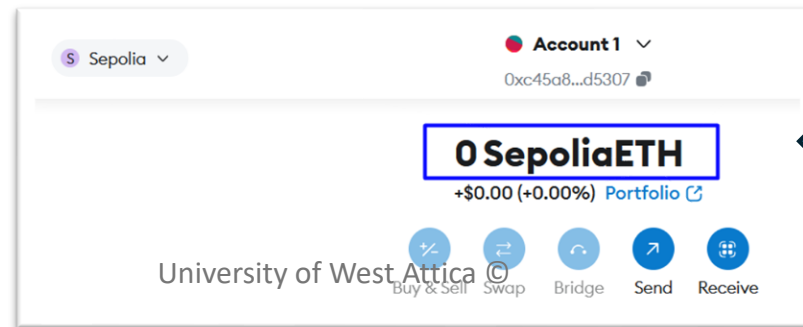
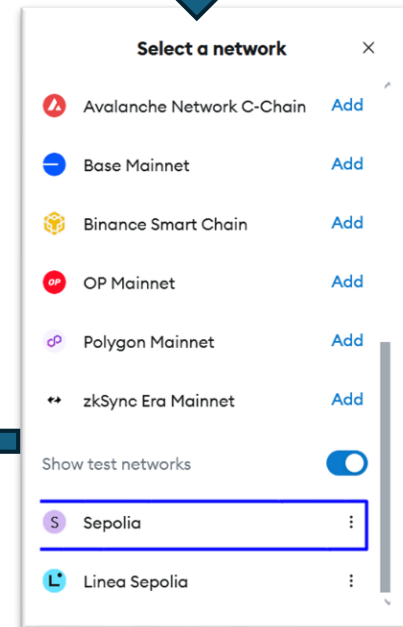
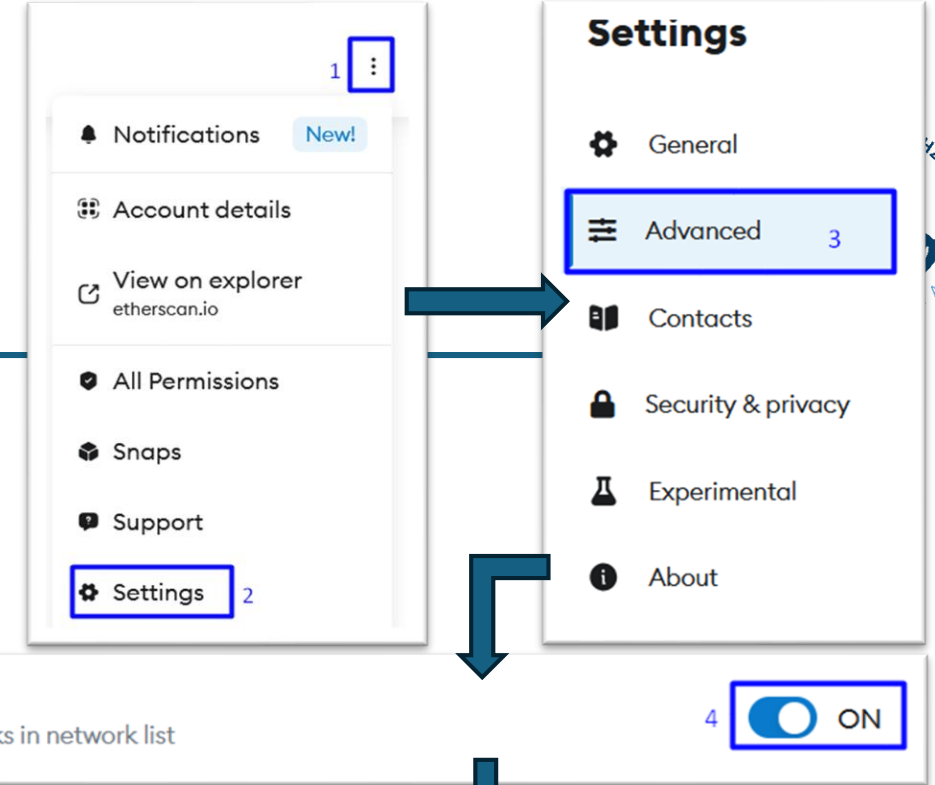
Sepolia Blockchain is a testnet for Ethereum, used by developers to test smart contracts and decentralized applications (DApps) before deploying them on the Ethereum mainnet. It provides a safe, low-cost environment for experimentation and debugging without risking real funds.



# Changing Network to Sepolia

Changing the network to a testnet requires a few extra steps:

1. Click on the 3 dots on the top right of MetaMask
2. Go to Settings
3. Go to Advanced
4. And test networks
5. The Sepolia testnet will be available in the list of networks
6. You can see that instead of ETH in the balance we have SepoliaETH

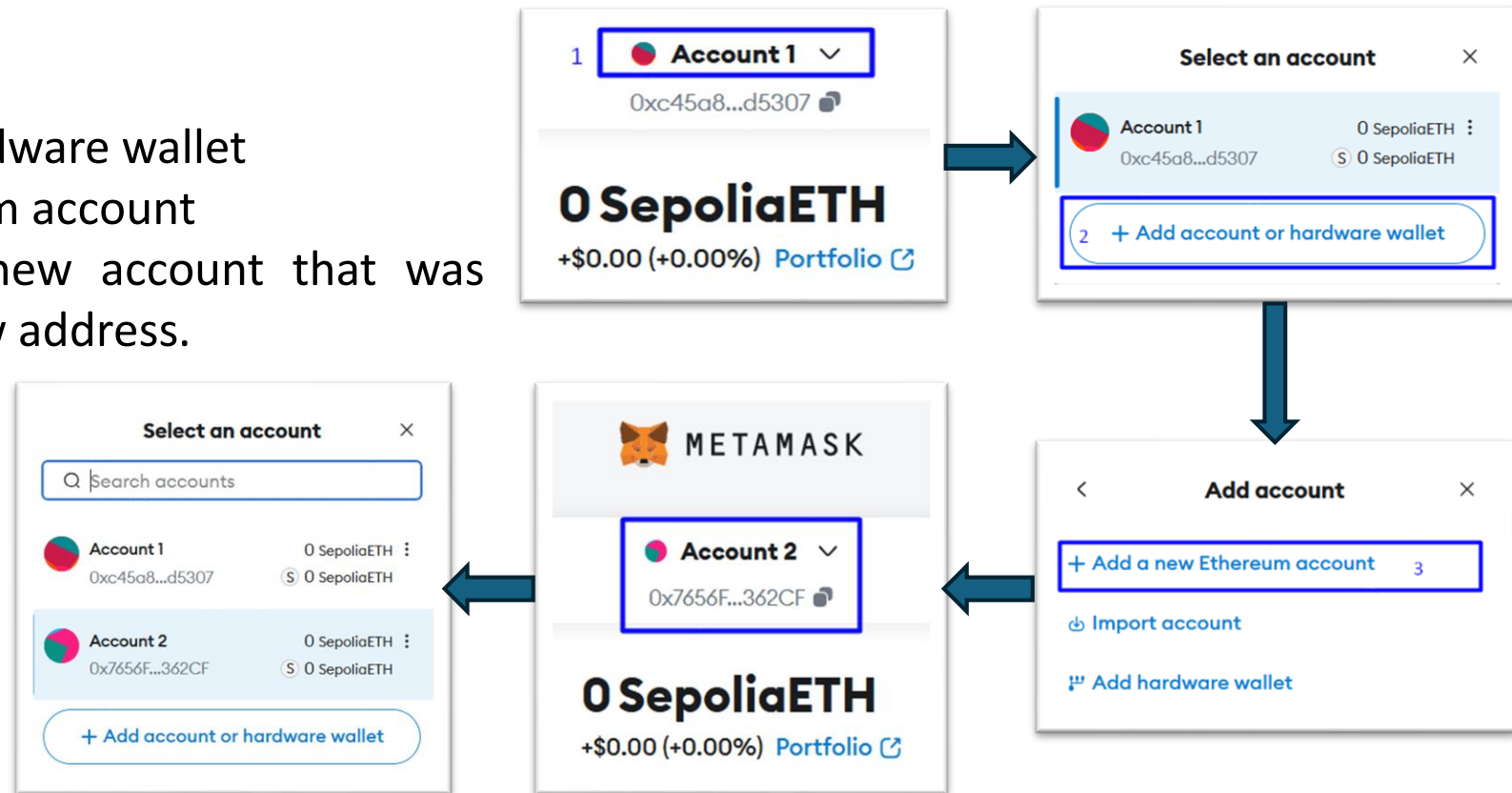




# Creating and changing accounts

In metamask you can have multiple accounts by importing already existing ones or creating new.

1. Go to accounts
2. Add account or hardware wallet
3. Add a new Ethereum account
4. You can see the new account that was created with its new address.

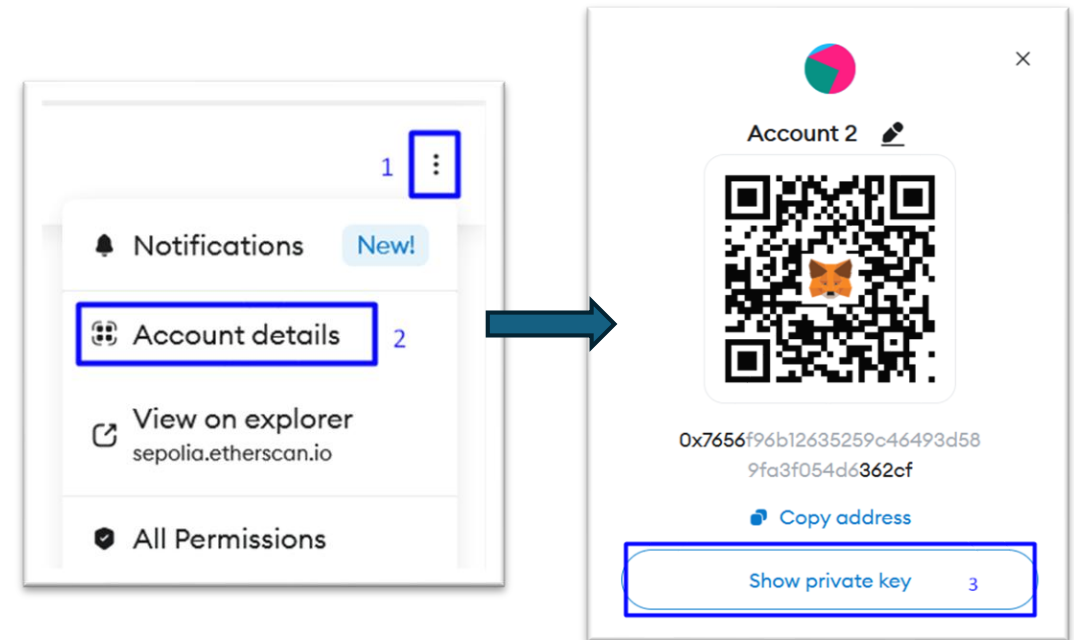


# Account's Private Key

You can see your active account's private key by following the process bellow:

1. Click on the three dots
2. Account details
3. Show private key
4. You will be asked for you password

Each account has its own private key like it has its own address.



# Get SepoliaETH from a faucet

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A *Sepolia faucet* is a tool or service that provides free test Ether (ETH) to developers for use on the *Sepolia testnet*. Since test Ether has no real-world monetary value, faucets are used to distribute it for testing purposes in a decentralized application (DApp) or smart contract development.

You can visit a faucet by following this links:

[Chainlink](#)

[Alchemy](#)

[Metamask](#)

Some of them may require to have actual ETH on the account requesting the SepoliaETH.

For the duration of this course, I suggest you try and get SepoliaETH every day (or whenever the faucets allow).

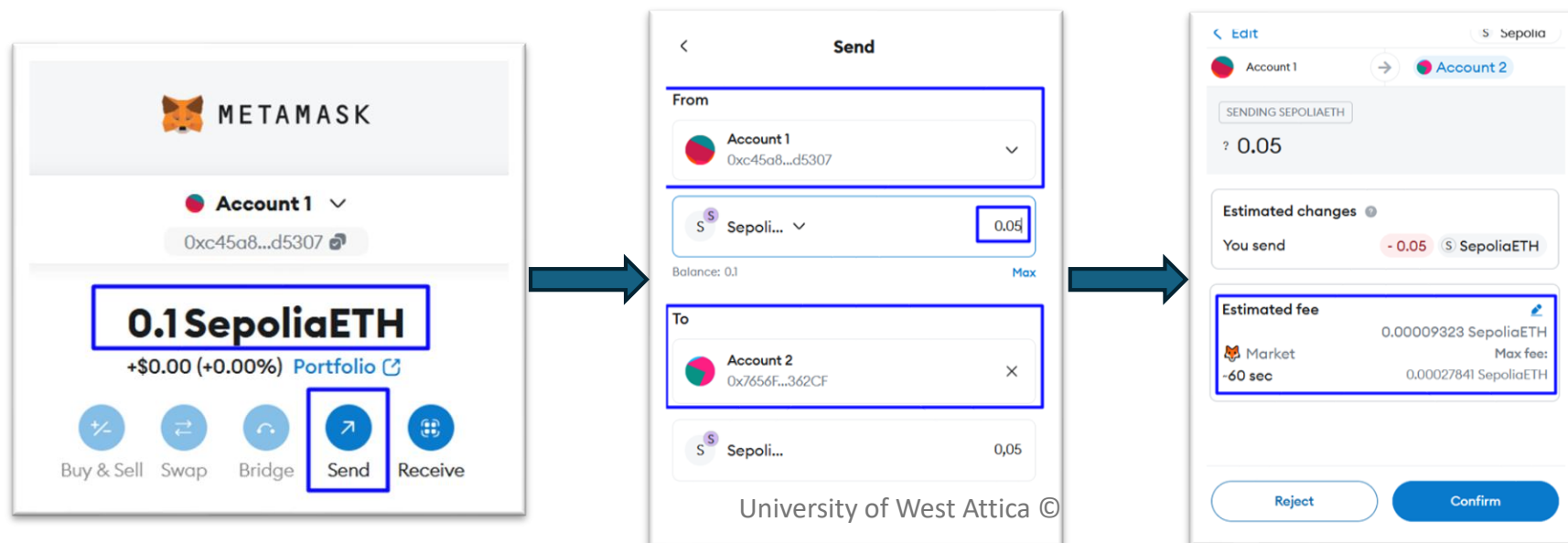
# Making a transaction (1)

Now that you have SepoliaETH, we can make a transaction.

We will **transfer** some SepoliaETH between the two accounts we created.

Notice that in the image Account 1 has 0.1 SepoliaETH. It will transfer half of it (0.05 SepoliaETH), to Account 2.

Also notice that before confirming the transaction there is an estimated fee. This is gas fees that we discussed in the previous lesson.



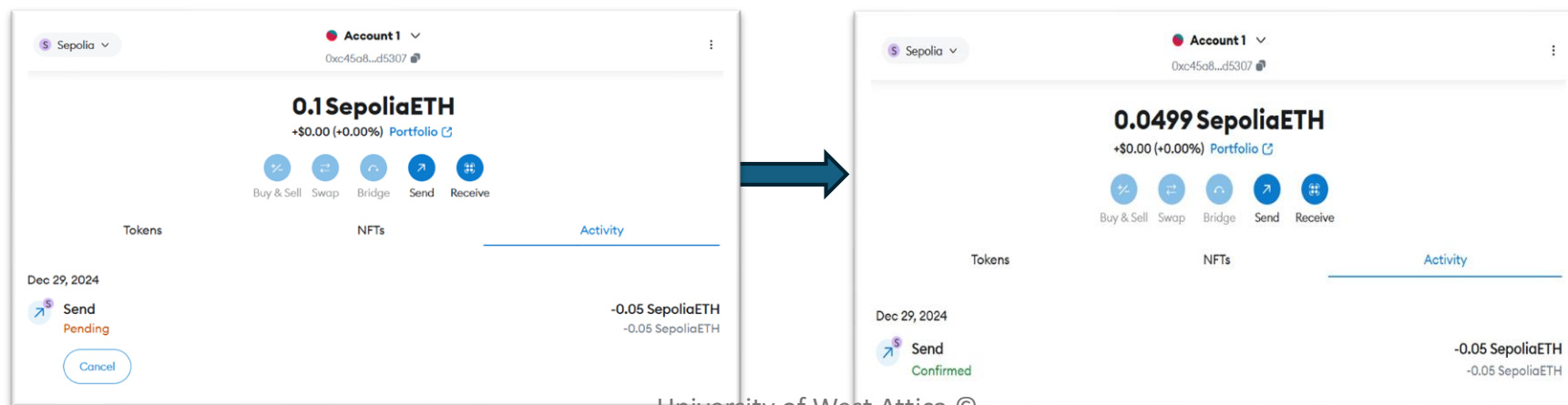
# Making a transaction (2)

After confirming we will need to wait a few seconds until the transaction completes. It will be on the pending state.

After that you will notice that the transaction was confirmed.

You will also notice that the balance on the account that sent 0.05 SepoliaETH is now 0.0499 instead 0.05.

This is because of the gas fees. We will learn more about them later.



# Outro

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We did our first transaction!!!

Next, we will jump into the coding portion of the course.