# **Appendix 1 - Version 1.3 \_12/12/2023**

The following sections of code are taken from the source code that was amended so as to run the proof of concept. Each of the sections are delineated by a **~~~~~~** and each section of source code have interlaced screen shots from the code that was ran and committed to my GitHub repository.

# **constants.ts**

**Organising constants**

One of the primary purposes of a constants.ts file is to organise and centralise all the constant values used in a project. By storing constants in a dedicated file, developers can easily locate and manage them. This approach eliminates the need to search through multiple files to find specific constant values, making the codebase more maintainable and efficient.

import { CoinType } from "@iota/sdk-wasm/node";

export const NODE = "https://api.testnet.shimmer.network";

export const FAUCET = "https://faucet.testnet.shimmer.network/api/enqueue";

export const EXPLORER = "https://explorer.iota.org/testnet";

export const COIN\_TYPE = CoinType.Shimmer;

export const DIRECTORY = "wallet";

**//INSIDE OF THE SCRIPT**

When developing code for the IOTA blockchain, it is crucial to carefully select and include the necessary functions while excluding unnecessary ones. This ensures that the code is efficient, secure, and optimised for the specific requirements of the project. Let's analyse the provided code snippet and discuss the importance of including and excluding certain functions.

**Importing the CoinType**

The code snippet includes an import statement for the CoinType from the @iota/sdk-wasm/node package. This import is essential as it allows the code to access the CoinType enum, which provides a standardised way to specify the type of coin used in the IOTA network. By including this import, the code can properly handle and interact with the IOTA network.

**Constants for Node, Faucet, Explorer, Coin Type, and Directory**

The code snippet also defines several constants, including NODE, FAUCET, EXPLORER, COIN\_TYPE, and DIRECTORY. These constants hold important information such as the URL of the IOTA node, the faucet API endpoint, the explorer URL, the coin type, and the directory name.

Including these constants is crucial as they provide the necessary configuration for the code to interact with the IOTA network. For example, the NODE constant specifies the URL of the IOTA node, allowing the code to connect to the correct network. Similarly, the FAUCET constant provides the API endpoint for the faucet, which is essential for obtaining testnet tokens. The EXPLORER constant holds the URL of the IOTA explorer, enabling the code to retrieve transaction information and explore the blockchain.

The COIN\_TYPE constant specifies the type of coin used in the IOTA network. In the provided code snippet, it is set to CoinType.Shimmer, indicating the usage of Shimmer coins. This information is crucial for the code to handle the specific coin type correctly.

Lastly, the DIRECTORY constant specifies the directory name where the wallet is located. This is important for file operations and ensuring that the code can access the wallet files correctly.

By including these constants, the code becomes more modular, configurable, and easier to maintain. It allows for easy customisation and adaptation to different network environments and requirements.

A screen shot of a computer program

Description automatically generated

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