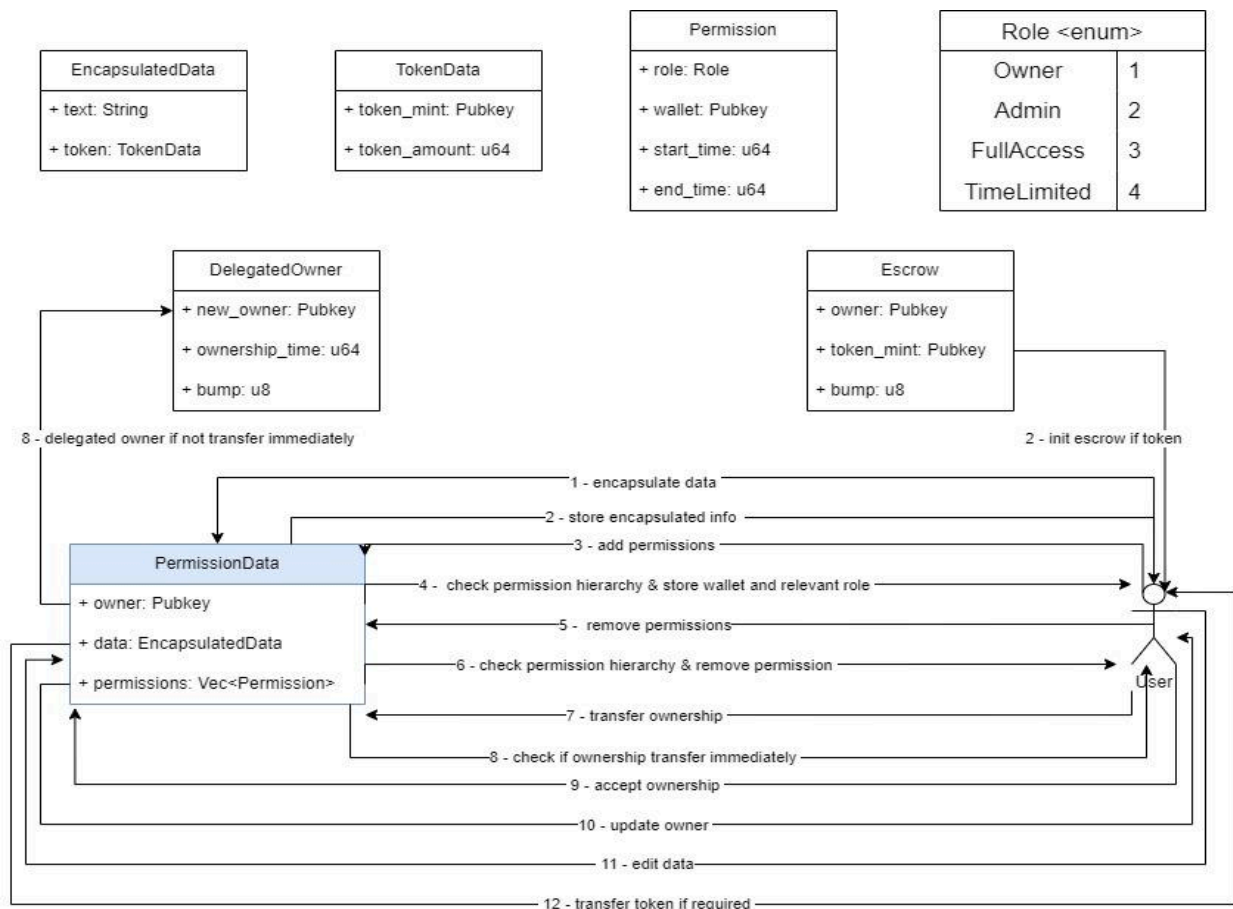


Protocol POC Requirements

- The protocol shall allow owner to encapsulate data
- The protocol shall allow the owner and admin(s) to add more wallets that can access the encapsulated data
- The protocol shall allow the owner and admin(s) to set a permission role for the new wallets. Different wallets can have different roles for the same encapsulated data.
- The protocol shall allow the owner and admins(s) to remove permission of a wallet from accessing encapsulated data.
- The protocol shall allow the owner to transfer ownership of encapsulated data to a different wallet.
- The protocol can let the owner delegate ownership of encapsulated data to a different wallet with a delegated ownership time in the future.
- The protocol can allow the delegated owner to accept ownership when the delegated time is reached.
- The protocol shall let wallets with access to the encapsulated data to update the data.

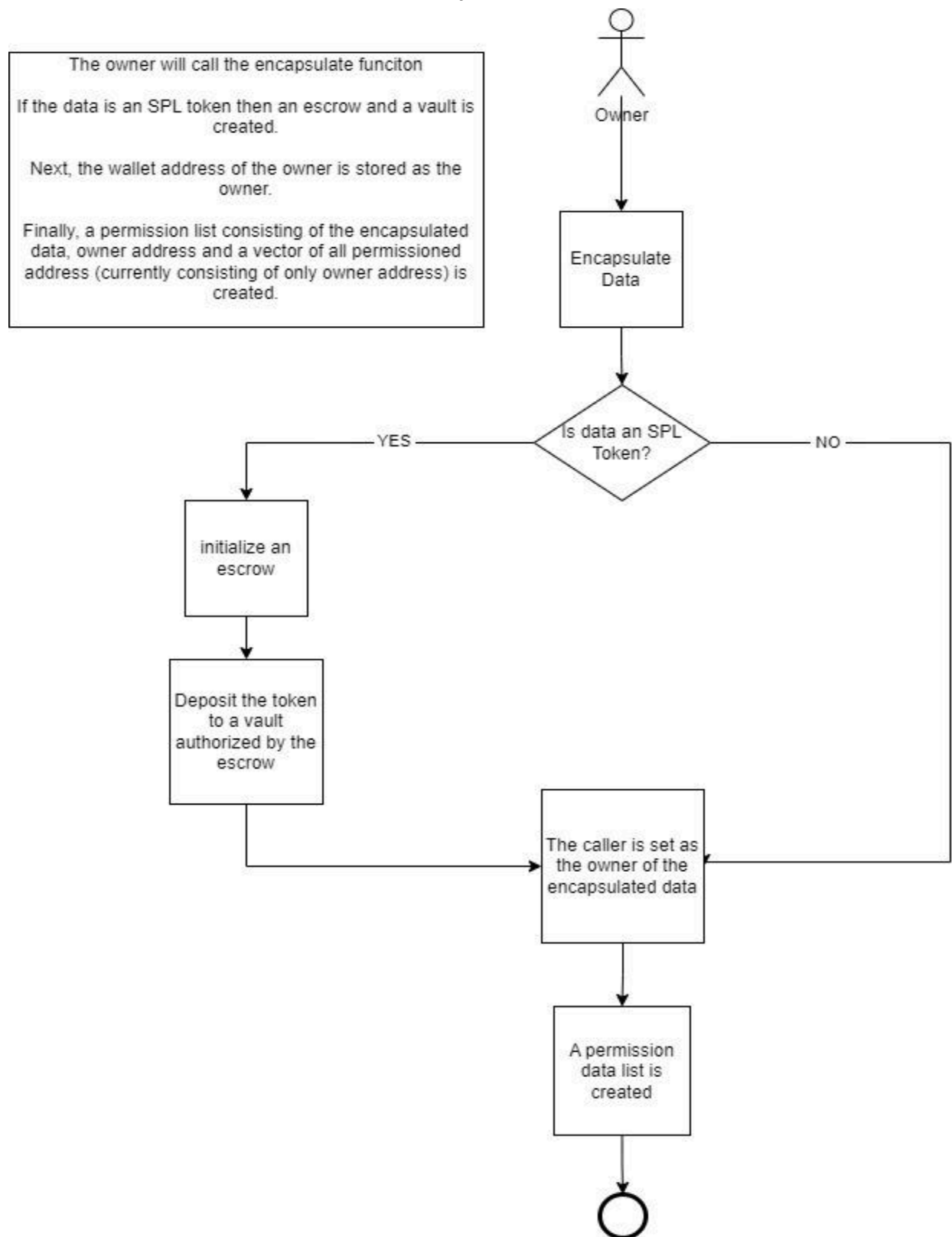
Overview



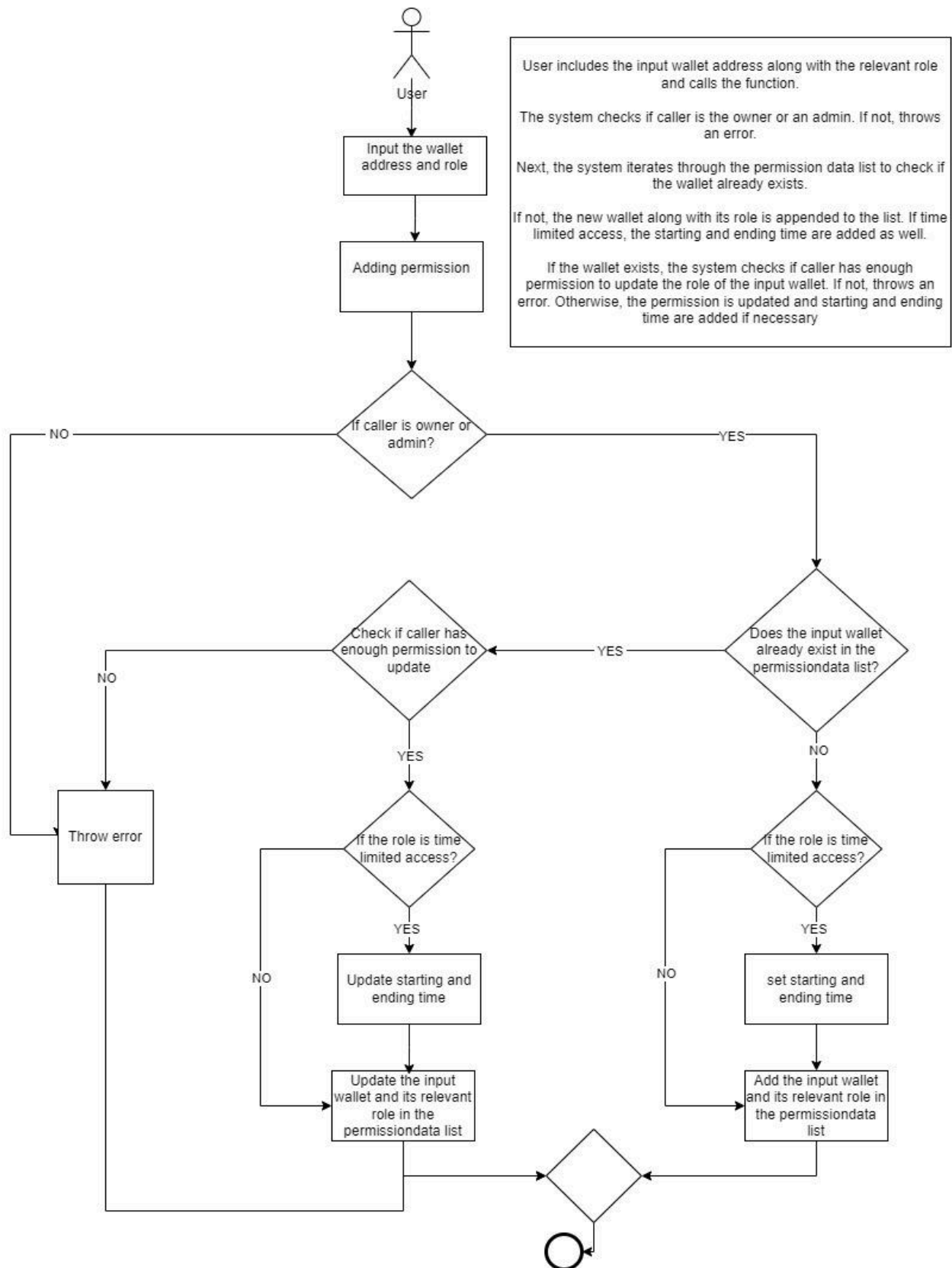
- 1 - encapsulate data:
 - Owner encapsulates the data
 - Data can be text, fungible and non fungible SPL tokens.
- 2 - store encapsulated data & init escrow if token encapsulated:
 - If an SPL token is encapsulated, the platform initialises an escrow and deposits the token in a vault authorized by the escrow.
 - No escrow is needed if textual data is encapsulated.
- 3 - add permissions:
 - Only the owner or admin(s) can call the add permission function.
 - The wallet address and corresponding permission role should be passed as argument.
 - If the role is time limited access then the starting time and ending time of the access are also passed as UNIX timestamp arguments.
- 4 - check permission hierarchy to add:
 - The platform first checks if the caller has enough permission to call the function.
 - The permission checks if the input wallet already exists in the list of authorised wallets. If so, the wallet will check if the caller has enough permission to update the permission of the input wallet. If both passes, the platform updates the permission of the input wallet.
 - If the input wallet does not exist, the platform appends the input wallet in the list of authorised wallets along with its permission role.
- 5 - remove permissions:
 - Only the owner or admin(s) can call the add permission function.
 - The wallet address should be passed as an argument.
- 6 - check permission hierarchy to remove:
 - The platform first checks if the caller has enough permission to call the function.
 - The platform checks if the caller has enough permission to remove the permission of the input wallet. If so, the platform removes the input wallet from the list.
- 7 - transfer ownership:
 - Only the owner can call the transfer ownership function.
 - Owner needs to pass the new owner's wallet address as an argument.
 - Owner needs to pass the future ownership time if she wants to delegate ownership to a future time.
- 8 - Check ownership transfer:
 - The platform checks if the time argument is a future time.
 - If so, transfer ownership immediately.

- If the input wallet exists then its role is updated and if it does not exist then it is added to the list as the new owner.
 - The role of the original owner is updated to the admin role.
 - If the time is a future time, the platform will save the ownership start time and delegated owner for future reference.
- 9 - accept ownership:
 - The delegated owner will call the function.
- 10 - update owner:
 - The platform will check if the caller is the valid delegated owner and if the delegated start time is reached. If both passes, the platform transfers the ownership.
 - If the input wallet exists then its role is updated and if it does not exist then it is added to the list as the new owner.
 - The role of the original owner is updated to the admin role.
- 11 - edit data:
 - If textual data, the owner or the admin includes the new data as argument.
 - If token, the owner or the admin can add more token or remove token to a different wallet. For this purpose, the caller will call specific functions.
- 12 - transfer if required:
 - If transferring tokens is initiated, the system will transfer the tokens from vault to designated wallet.

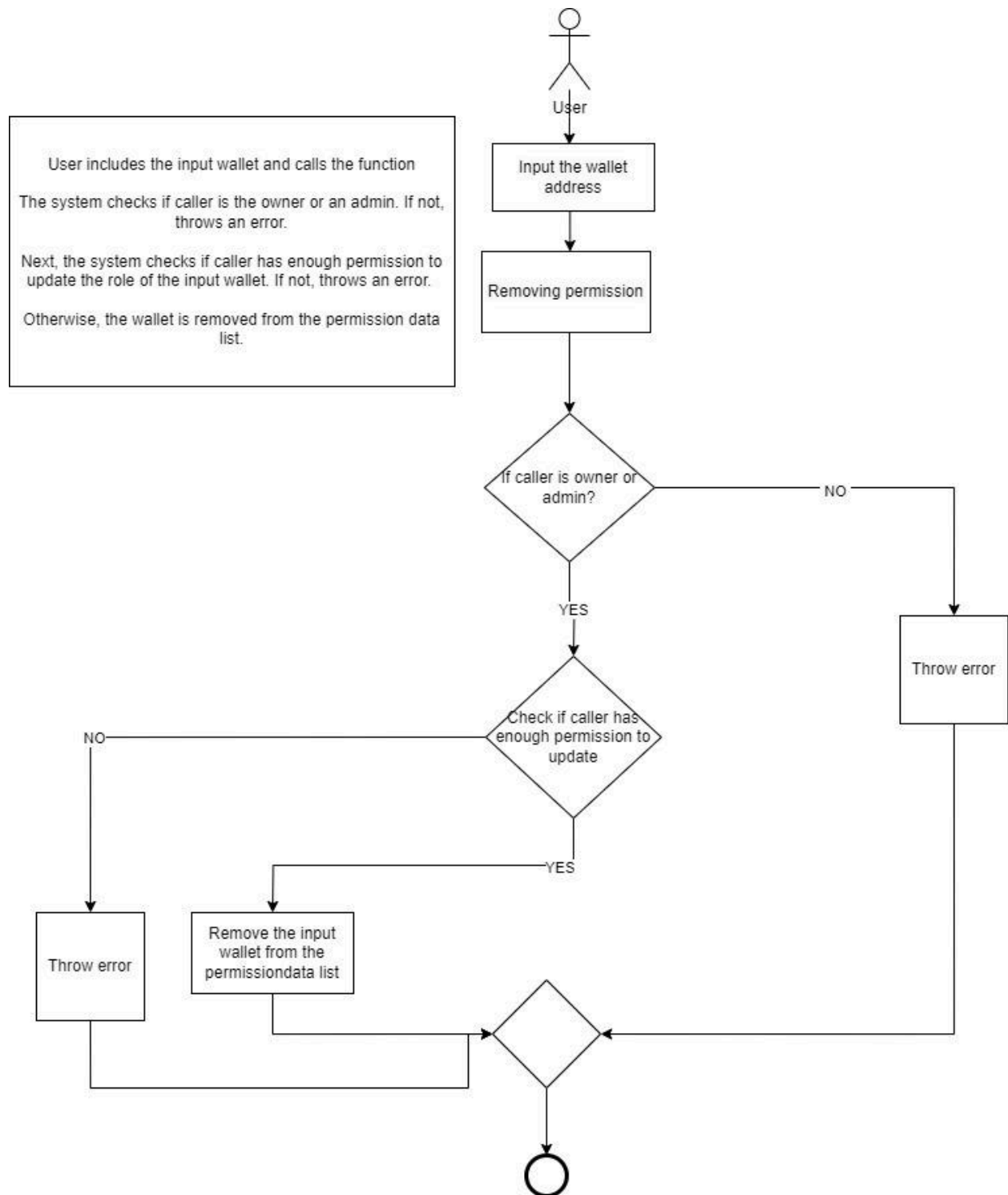
Encapsulation



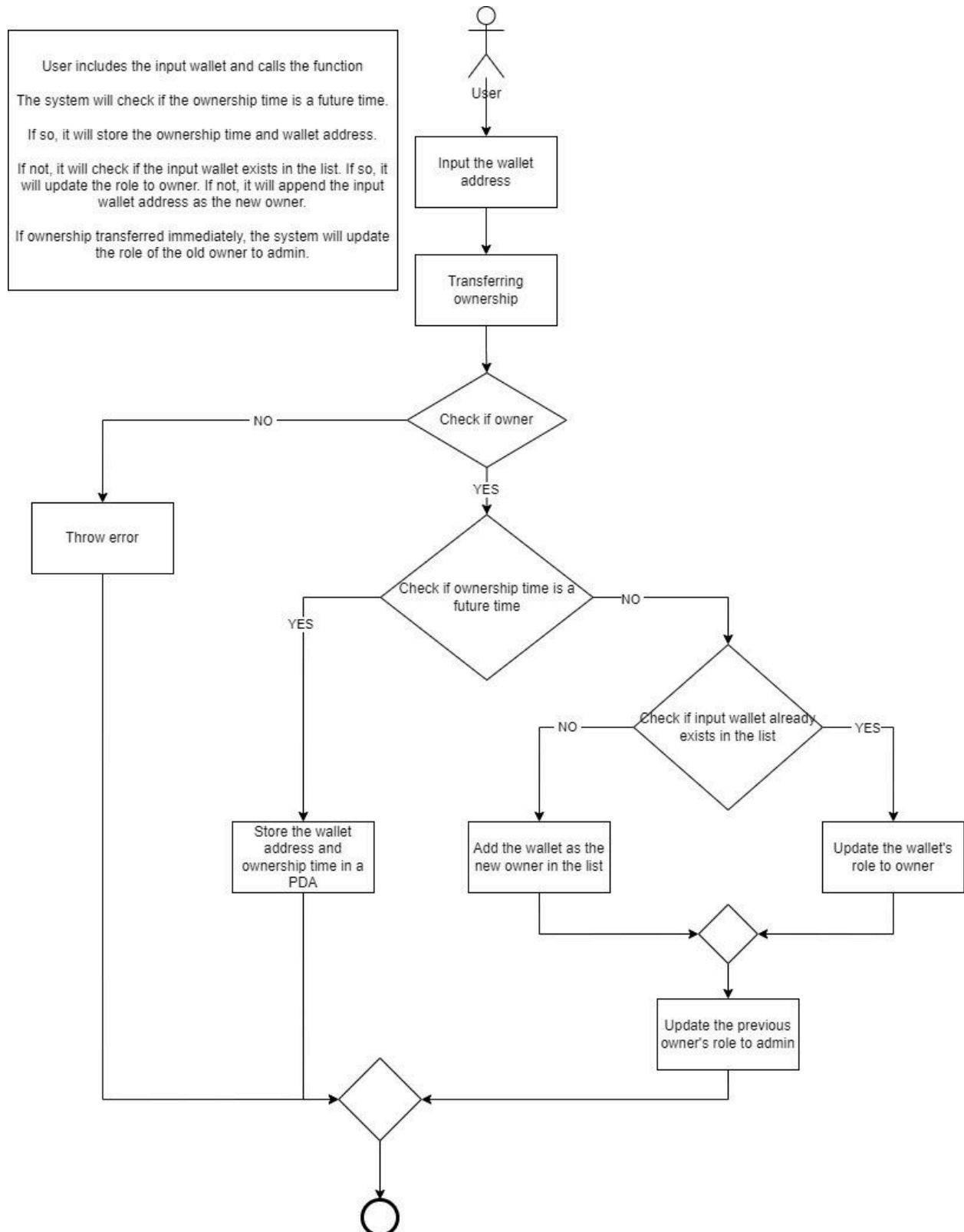
Add Permissions



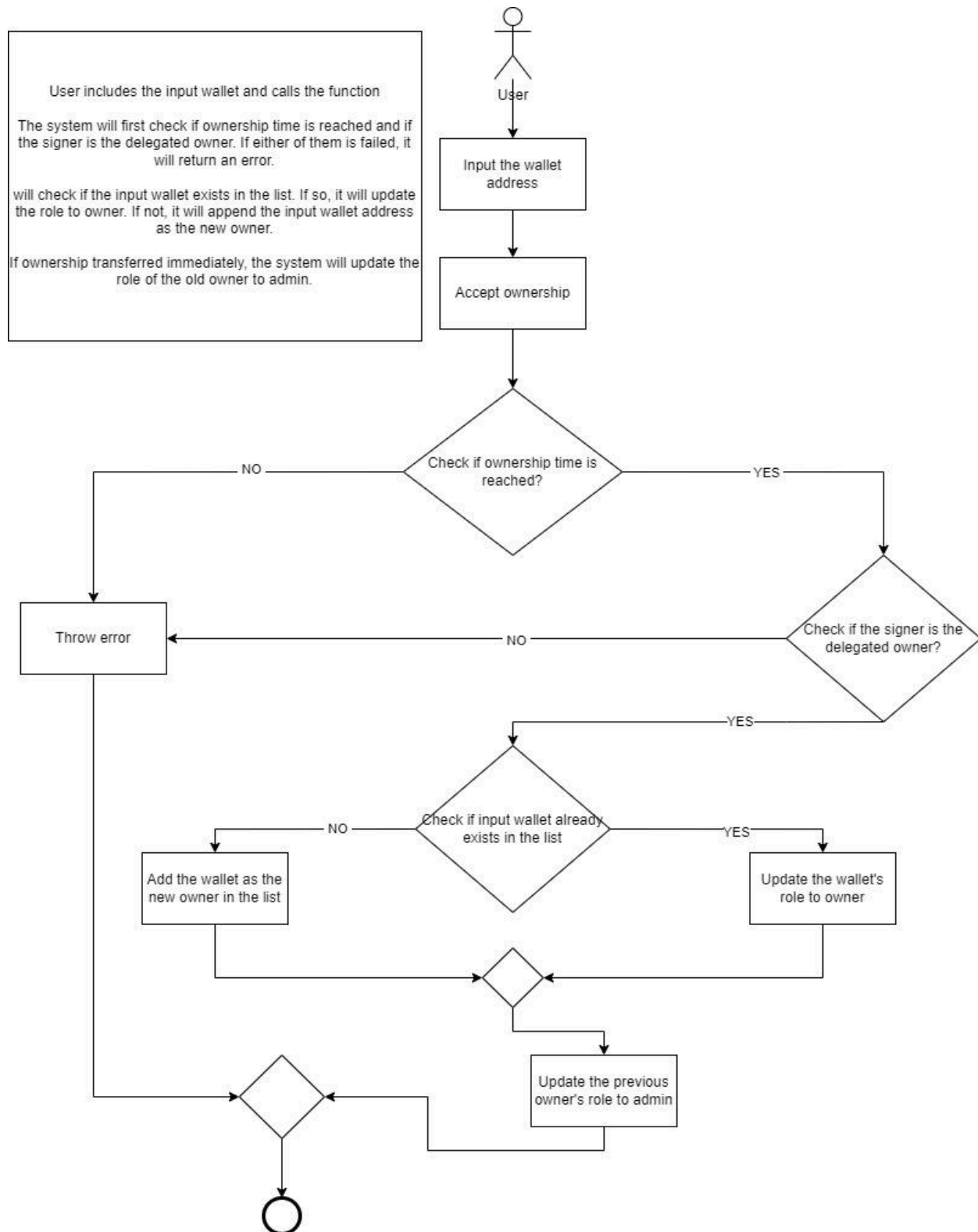
Remove Permissions



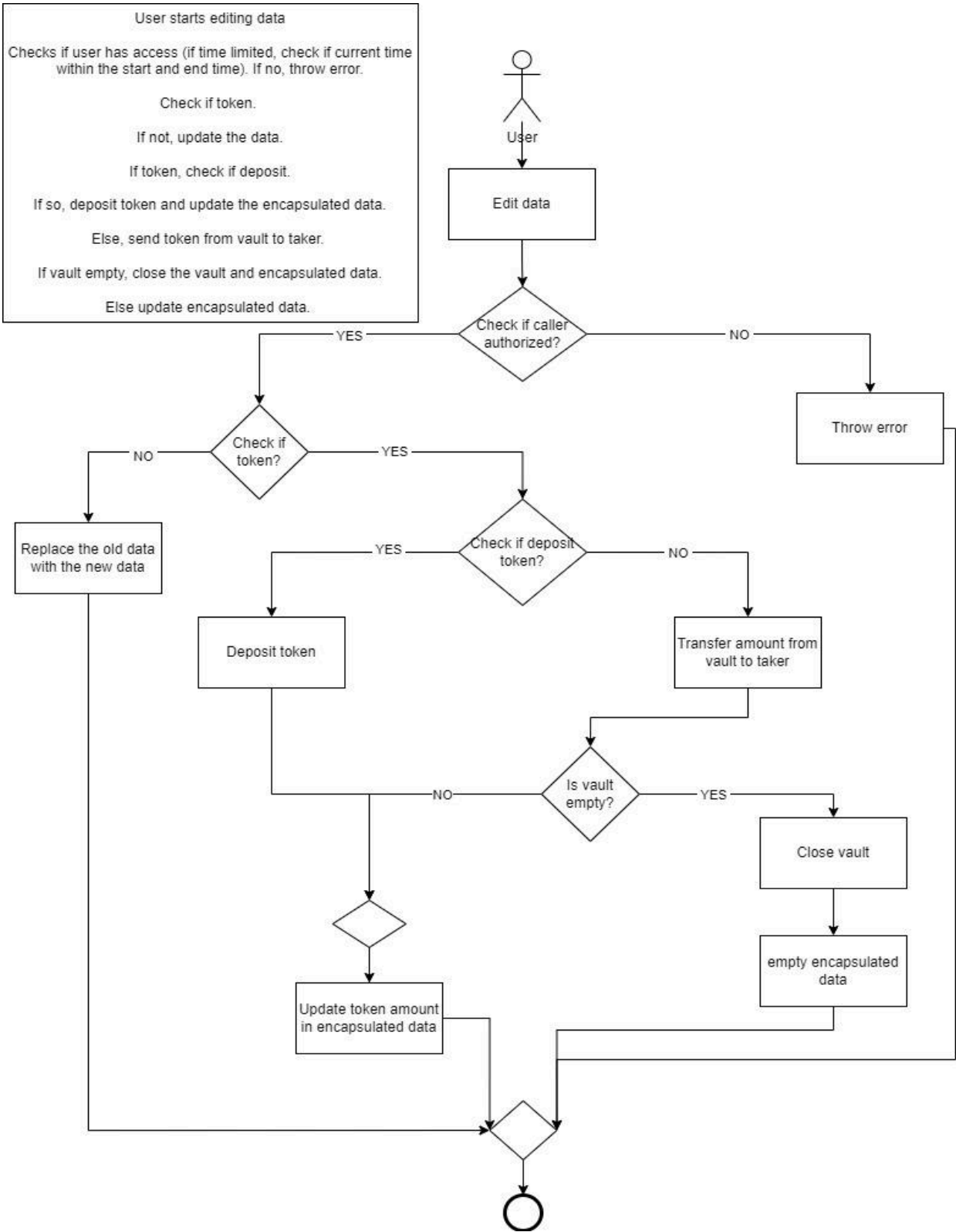
Transfer Ownership



Accept Ownership



Edit Data



End to End Overview

