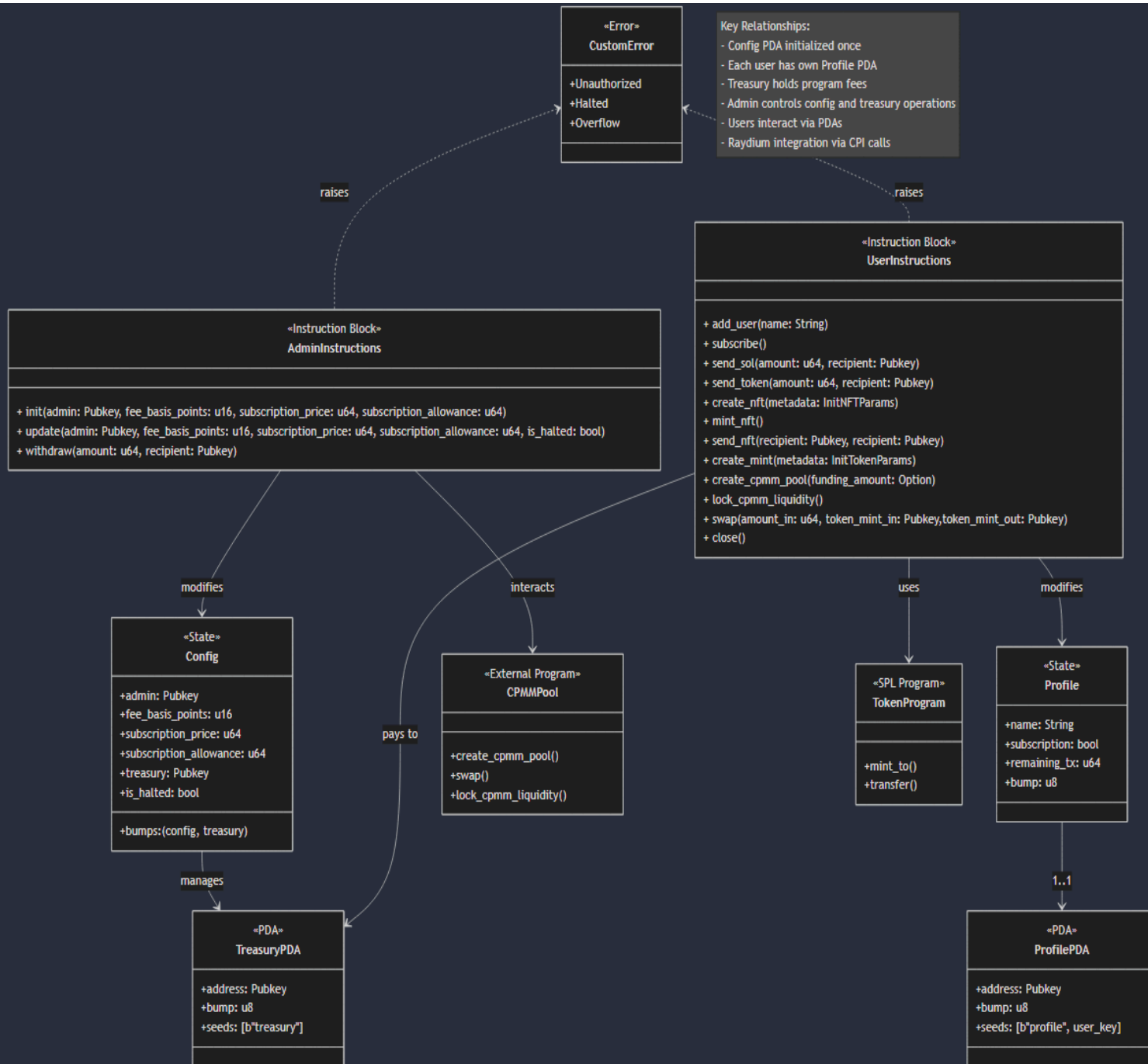


Sagent POC Requirements

- The platform shall allow users to interact with the Solana blockchain through a Large Language Model (LLM) chatbot, using text commands.
- The platform shall support a variety of blockchain tasks, including sending/receiving tokens, creating NFTs, launching tokens, and executing DeFi swaps.
- The chatbot shall be capable of understanding and interpreting natural language user requests related to supported blockchain tasks.
- The platform shall integrate with a browser wallet (e.g., Phantom) for secure transaction signing and user authorization.
- The platform shall prioritize ease of use, efficiency, security, and accessibility for users with varying levels of blockchain expertise.

Overview



Step 1: Config Initialization

- Actor: Admin
 - Action: Initialization of the config with admin, fees, subscription price & allowance
-

Step 2: Profile Initialization

- Actor: User

Action:

- create the profile with their name as a parameter to create the profile PDA
-

Step 3: User Subscribes (Optional)

- Actor: User

Action:

- Transfer Subscription Price amount to the treasury
 - Adjust Users profilePDA with allowance and subscription status
-

Step 4: User sends SOL

- Actor: User

Action:

- Check if config is not halted and base fee

- Check Profile if user is subscribed
 - Performs function and takes fee if not subscribed; deduct remaining tx if sub
-

Step 5: Create Token

- Actor: User

Action:

- Parses parameters from user
 - Passes them to create metadata
 - Performs CPI with new metadata to Raydium Create CPMM
 - Performs Lock CPI with LP tokens through CPI
 - Returns Mint address
-

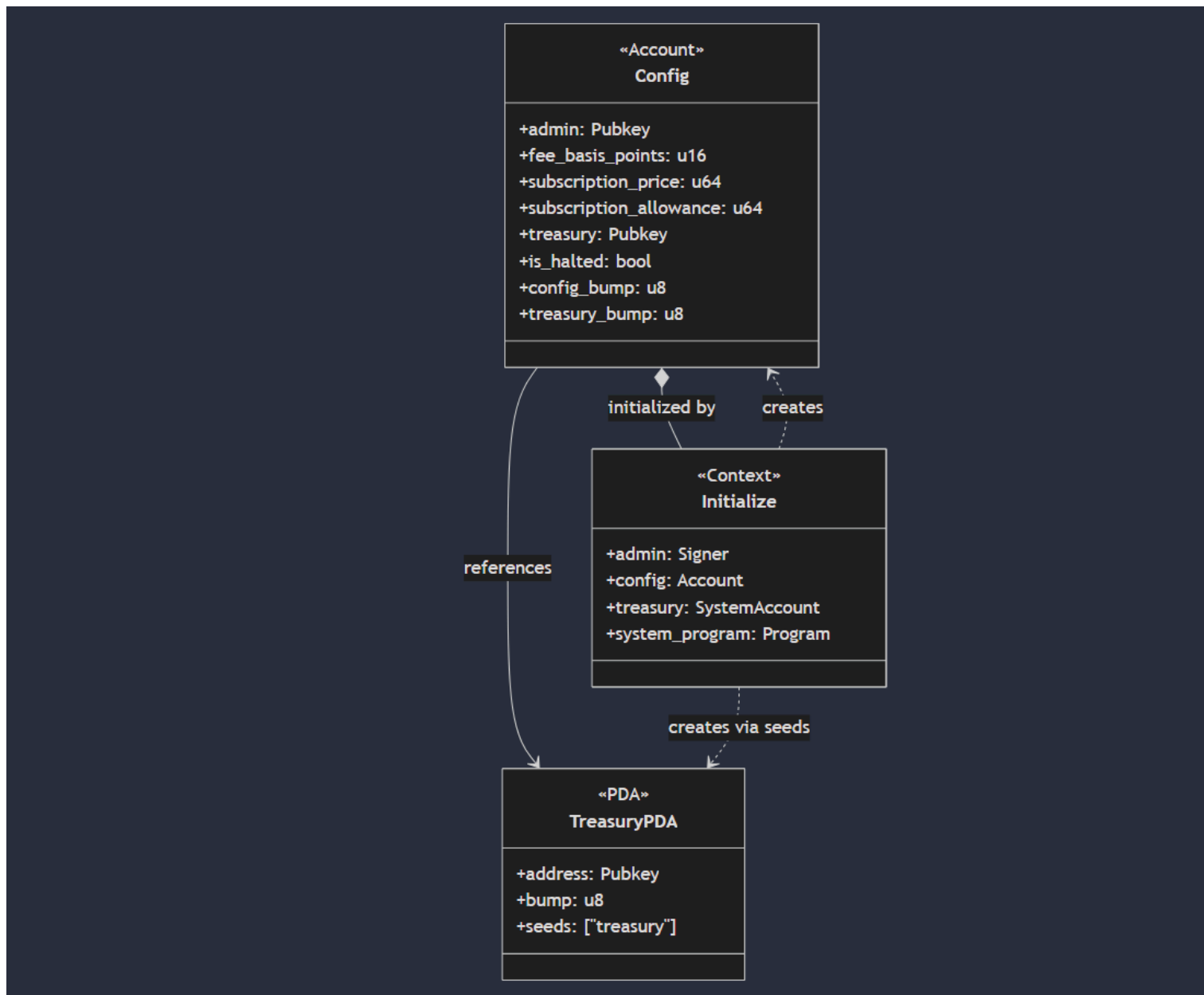
Step 6: Close

- Actor: User

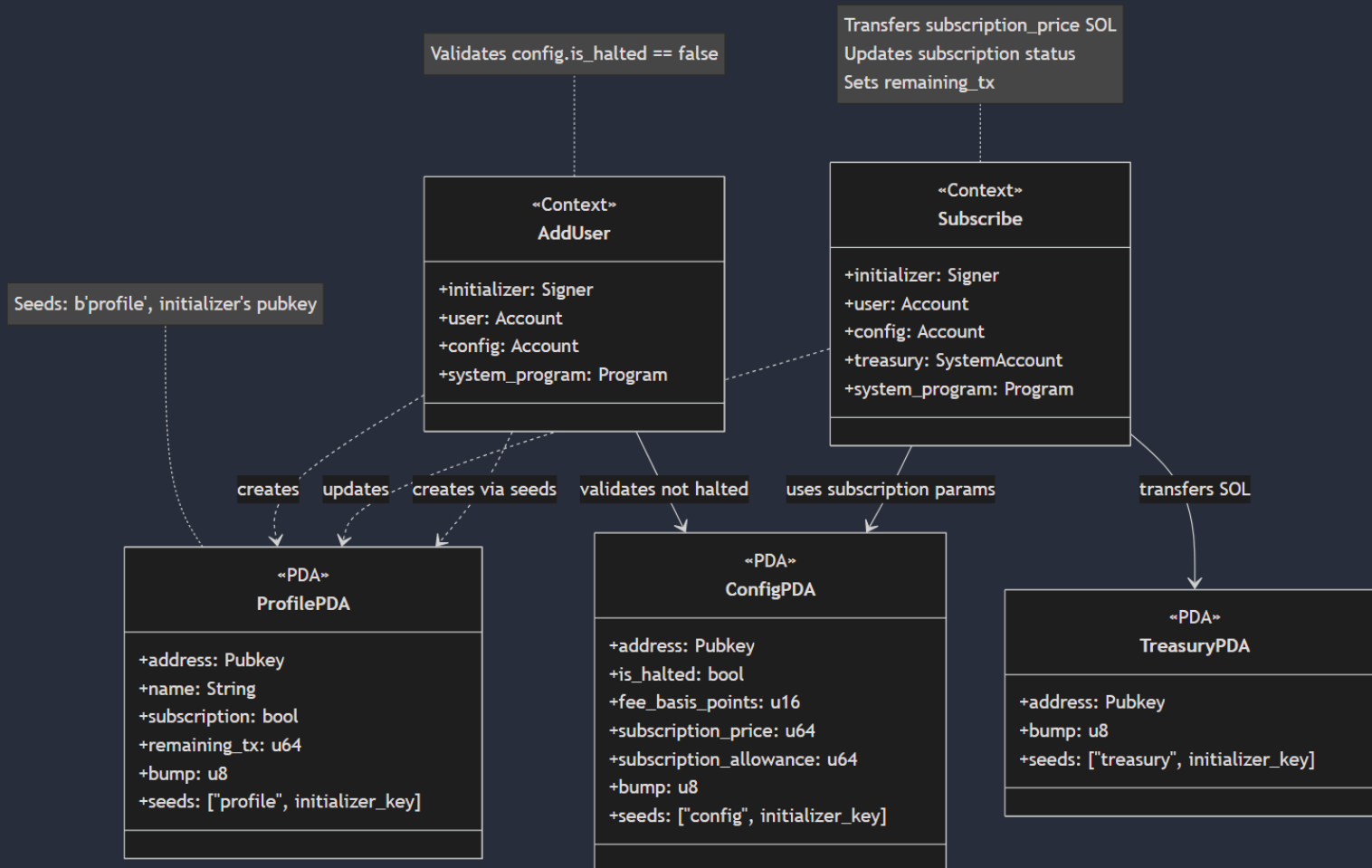
Action:

- Closes Profile PDA

Config State



Profile State



Instructions

Privileged operations:
- Program configuration
- Withdraw from Treasury

User-level operations:
- Profile management
- Value transfers
- Creating NFTs and SPL Tokens
- Trading/Swaps

Admin_Instructions

```
+ init(admin: Pubkey, fee_basis_points: u16, subscription_price: u64, subscription_allowance: u64)
+ update(admin: Pubkey, fee_basis_points: u16, subscription_price: u64, subscription_allowance: u64, is_halted: bool)
+ withdraw(amount: u64, recipient: Pubkey)
```

Manages

Config

«Block» UserInstructions

```
+ add_user(name: String)
+ subscribe()
+ send_sol(amount: u64, recipient: Pubkey)
+ send_token(amount: u64, recipient: Pubkey)
+ create_nft(metadata: InitNFTParams)
+ mint_nft()
+ send_nft(recipient: Pubkey, recipient: Pubkey)
+ create_mint(metadata: InitTokenParams)
+ create_cpmm_pool(funding_amount: Option)
+ lock_cpmm_liquidity()
+ swap(amount_in: u64, token_mint_in: Pubkey, token_mint_out: Pubkey)
+ close()
```

Manages

Profile

Interacts with

TreasuryPDA