Protocol POC Requirements

- The protocol will accept and securely lock staked tokens (mSOL/jitoSOL) as collateral in the smart contract.
- The protocol will initialize and record user position by creating a loan account tied to the staked collateral.
- The protocol will calculate available credit using a conservative loan-to-value (LTV) ratio based on current collateral value via oracle feeds.
- The protocol will mint and issue a credit SPL token (synthetic stablecoin) to the borrower's wallet after successful collateralization
- The protocol will track and periodically apply staking yield generated on locked collateral toward automatic loan repayment
- The protocol will restrict collateral withdrawal or unstaking until the outstanding loan is fully repaid and the loan is closed
- The protocol will maintain and update simple on-chain credit indicators and borrowing status for each user
- The protocol will enable merchant payments by allowing direct transfer of the credit token to merchant wallets with order/reference validation via Solana Pay

Overview

1. User will deposit staked SOL like mSOL/jitoSOL

2. User will initialize program and our program will lock their staked sol

3. Program will calculate credit limit based on collateral price (with oracel servicе) and LTV ratio (e.g. 60%)

4. Program will mint credit token to user

5. Daily or Weekly Program will reduce a user's loan using staking rewards (scheduled cron job will trigger this)

6. User will only be able to withdraw if principal amount is zero. If zero and loan is closed then unlock and return staked collateral to user

7. Program will keep track of a user's borrowing and repayment behavior

8. Users can make purchases or payments using credit tokens via Solana Pay