IDO Project

Step 1 : Deploy ICOToken.sol file

(if a user have already created a token so no need to deploy this file)

Step 2 : Deploy BUSDToken.sol file

Step 3 : Deploy FactoryContract.sol file

Functions

1. collectICOTokenomics
   This function collects all the information about tokens.

2. collectICOInfo
   This function collects information about token soft cap,hard cap,presalerate, starttime,endtime,whitelist,vesting.

3. collectMinMaxRange
   This collects information regarding the min and max BUSD range.

4. getICOs
   It gives all the ICO addresses.

Step 4 : Deploy ICO.sol file

During deployment, provide the following details:

- SoftCap
- HardCap
- Pre Sale Rate
- Start Time
- End Time
- Address of BUSD Contract
- Address of ICO Token
- Bool whitelist
- Bool vesting

It will automatically fetch the ICO token name, symbol, decimals, and total supply from the given address of the ICO token at the time of deployment.

The person who is deploying this contract will be the owner of this ICO

Functions that only ICO owner can call

1. updateAdditionalInfo(whitelist, vesting)
   Even after deploying the smart contract ICO owner have the power to update the whitelist and vesting status.

2. setMinMaxRange
   The ICO owner will set the range of BUSD tokens a buyer can spend for the token.

3. updateStartEndTime
   The ICO owner can update the start and end times, but not before the end of the ICO.
   Once the ICO is over, the owner will not be able to change it.

4. updatePreSaleRate
   The ICO owner can update the presale rate until the ICO is over.

5. updateSoftHardCap
   The ICO owner can update the soft cap and hard cap until the ICO is over.

6. transferToAdmin
   The ICO owner can withdraw BUSD tokens from this contract using this functionality.
   But the condition is that the soft cap should be complete and the ICO should be over.
   Only then will this function transfer BUSD tokens from this contract to admin.

7. Vesting
   If vesting is true then when buyer is transferring its BUSD token to contract, A buyer will not receive an ICO token instantly. After ICO end time and locking period ICO owner will be able to call it and transfer 25% of the ICO token it deserve. After four vesting rounds, buyers will receive the full ICO token.

8. whitelistedUser

Owner will provide the arrays of addresses that the ICO owner wishes to add as whitelisted users.

9. whiteListedUserRemove
   Owner will give the arrays of addresses that the ICO owner want to add as whitelist user for the ICO.

functions that anyone can call

1isSoftCapReach
Returns the true or false value on the basis of whether Soft Cap is reached or not.

isHardCapReach
Returns the true or false value on the basis of whether Soft Cap is reached or not.

isICOOver
Returns the true or false value on the basis of whether Hard Cap is reached or whether the ICO's end time is complete or not.

ICOtoken
It returns the ICO token of the address that is calling this function.

BUSDtoken
This function returns the BUSD token of the address that called it.

contractICOToken
This method returns the contract address's ICO token.

contractBUSDToken
This function returns the BUSD token associated with this contract address.

Functions that only whitelisted buyer can call(If whitelisting is true)

1. Buy
   Only White listed users can buy the tokens in the min and max range of BUSD tokens that the ICO owner has set. After the end time, no one can buy the tokens.

2. refund

   After the end time is reached and this ICO's soft cap status is complete, only then the buyer will be able to receive their refund. Otherwise, it will revert.

Step 5 : Deploy Stacking.sol file

During deployment, provide the following details:

- Stacking Period
- APY
- Penalty

functions that anyone can call

1. stacking
2. Unstacking
3. claimReward

functions that only Owner can call

1. UpdateStacking
2. UpdatePenalty
3. retrieveStuckedERC20Token