Crowd funding project

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This is a program that is crowdfunding which is able to operate in Ethereum network. There are two type of users in this contract, The first one is a `Funder` who fund for funding success. The second one is a `Fundraiser` who create a funding for his project.

When `Fundraiser` create a funding, he needs to set up title, subtitle, content, goalAmount, minAvailableAmount, beginTime, endTime about his funding.

In order to withdraw Ether from a funding as `Fundraiser`, You need a successful funding that stored in this smart contract.

In order to withdraw Ether from a funding as `Funder`, A funding state must be failed or progress.

- The `getBalance` method that is located in crowdFunding would show you balance of this contract.
- All of Coin unit is wei.

Requirement

- `node >7.x.x && <17.x.x`
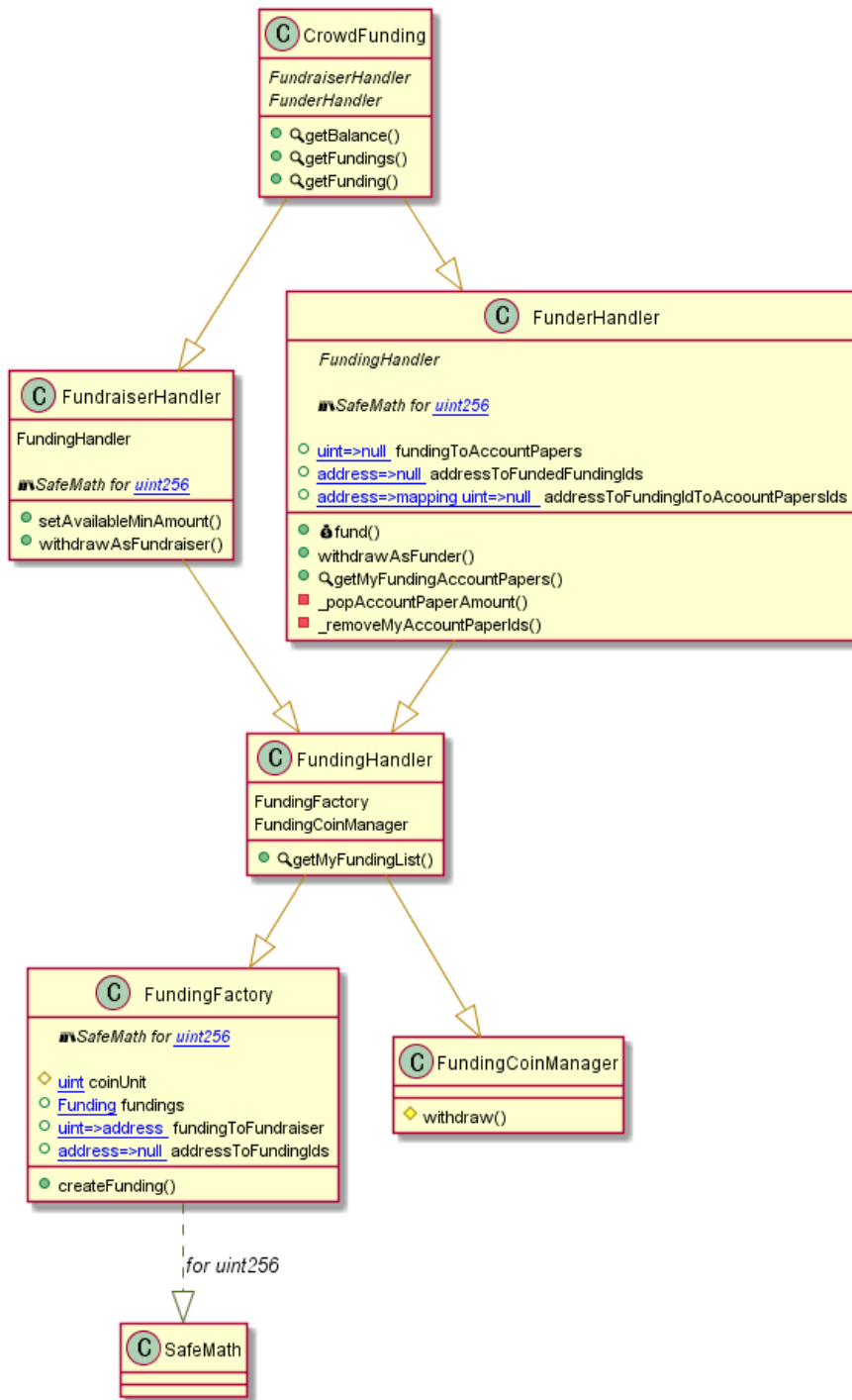- `truffle ^5.5.x (If you want to test on private network or deploy contract.)`

Usage

1. Make `.secret` file on root directory and put the mnemonic that you set up when you created the Ethereum account in `.secret` file.
   - If you don't have an Ethereum account, [create it here](#).
2. Change account value to yours in `/js/CrowdFunding.js`.
3. Refer To the API List below and modify the `/app.js` for What you want to do.

Method	Params	Description
getFunding	id	Return funding that is `id` that you put funding in contract.
getFundings		Return all of Fundings in contract.
createFunding	title, subTitle, content, goalAmount, availableMinAmount, beginTime, endTime	
fund	id, amount	
getMyFundingAccountPapers	id	This method would return receipts that you funded at `id`.
withdrawAsFunder	id	This method possible you to get a refund from funding that you funded.
withdrawAsFundraiser	id	When funding finished successfully, You can withdraw from funding that you made.
setAvailableMinAmount	id, amount	This method change funding 'available min amount'.

Test Publish

Network	Contract	Txn Hash
[Ropsten](#)	0x8732FE7a3D5337836C85A2CDa5D371Ebc5308780	[0xce227e8679e93e5ed3929d4fb40a9e5c1bbfc969941906ff7c832f72af3950c7](#)

Contracts UML

Contracts Description Table

Contract	Type	Bases			
	Function Name	**Visibility**	**Mutability**	**Modifiers**	
CrowdFunding	*Implementation*	FundraiserHandler, FunderHandler			
L	getBalance	Public ⬛		NO⬛	
L	getFundings	external ⬛	⬤	NO⬛	
L	getFunding	external ⬛	⬤	NO⬛	
FundraiserHandler	**Implementation**	FundingHandler			
L	setAvailableMinAmount	External ⬛	⬤	ownerOfFunding	
L	withdrawAsFundraiser	External ⬛	⬤	fundingSucceeded	

Contract	Type	Bases		
FundingHandler	*Implementation*	FundingFactory, FundingCoinManager		
FundingFactory	*Implementation*			
L	createFunding	External ⬛	⬤	NO⬛
FundingCoinManager	*Implementation*			
L	withdraw	Internal 🔒	⬤	
FunderHandler	*Implementation*	FundingHandler		
L	fund	External ⬛	💶	availableFund
L	withdrawAsFunder	External ⬛	⬤	funded fundingInProgressOrFailed
L	getMyFundingAccountPapers	External ⬛		NO⬛
L	_popAccountPaperAmount	Private 🔐	⬤	
L	_removeMyAccountPaperIds	Private 🔐	⬤	

Legend

Symbol	Meaning
⬤	Function can modify state
💶	Function is payable