

# De Funds

## Description:

A Fully Decentralized Crowdfunding Platform with voting mechanism. Users can create and fund campaigns using ETH. Smart Contracts ( CrowdFund.sol and CrowdFundFactory) manage campaign logic, ensuring transparency and security.

## Demo:

<https://hyhen115.github.io/DeFunds/>

the demo contract is deployed on Sepolia Ethereum Testnet, and please connect to MetaMask Wallet on Sepolia Ethereum Testnet to proceed or use the functions of the dapp- DeFunds.

## Background:

### Current Crowdfunding Platform:

1. **High platform Fees**
2. **No Refunds to the donators if campaign fails**
3. **Campaign owners have no Flexibility for Deadlines, leading to failed campaigns and waste of Donations**

### How De Funds solve it:

1. **No Platform Fees**  
Users only need to pay for Gas Fees.
2. **Allow Refunds**  
Users can Request Refunds if Campaign Fails.
3. **Allow Campaign Owner Propose Deadline Extensions**  
Campaign Owner can Propose a 3-day Deadline Extension Proposal to their Donators. [details on page below]

## App Functionalities:

### Connect to Wallet & Explore Different Campaigns

To Use Any functions of the Dapp, **You MUST connect your MetaMask Wallet** and make sure **your wallet's network is same as the Dapp contract deployed on**.

In the Demo provided uses [Ethereum Sepolia Testnet](https://hyhen115.github.io/DeFunds/).

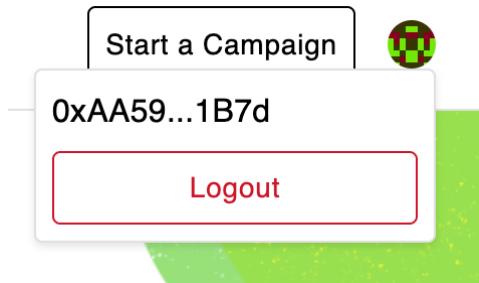
To Connect to Your Wallet, you can press the “**Connect Wallet**” Button on the Top Right Corner of the navigation bar:

[Start a Campaign](#)

[Connect Wallet](#)

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After Successful Connection You will able to see Your address Icon on the Top Right Corner:



To Logout of the Dapp, just click the icon, and press the “Logout” button. (this Logout button Only remove the account state of the Dapp, Will Not Unlink the MetaMask Wallet form the Dapp)

**Remarks for Logout function:**

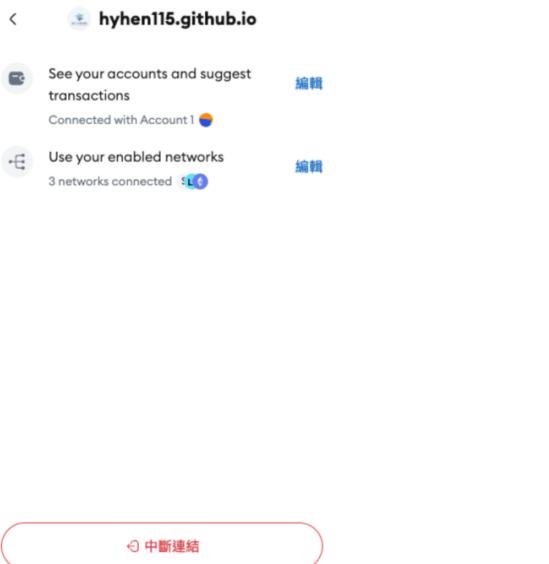
Due to **MetaMask stopped support** of the **window.web3 API** it is IMPOSSIBLE to use any logout related function to Unlink the MetaMask wallet from the website.

<https://support.metamask.io/more-web3/dapps/metamask-legacy-web3/>

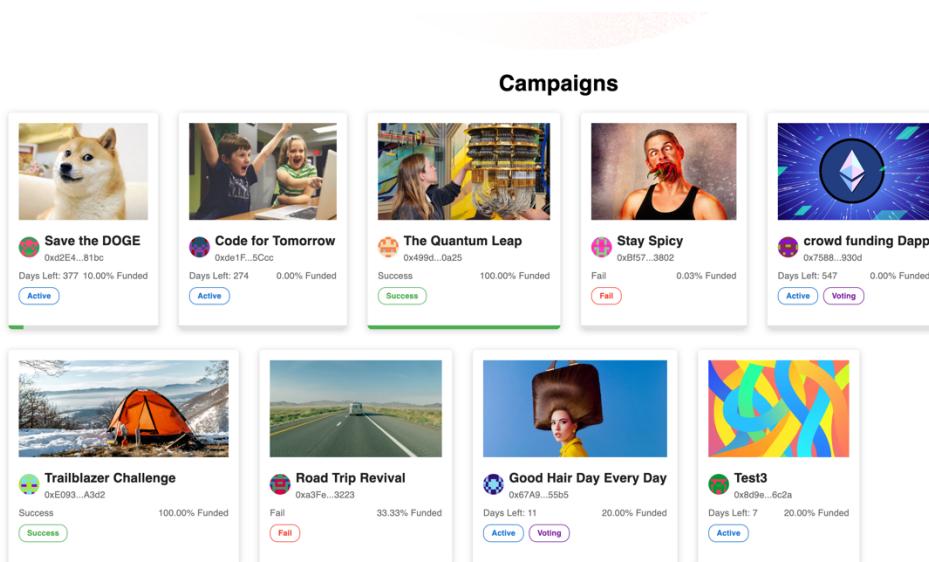
Unless the User downloads the **MetaMask legacy Web3 Extension** on the browser or install an Old version of MetaMask Wallet.

Therefore, **Due to Reasons of not want to cause any bugs or errors on window.web3.API** this logout function will **ONLY reset the wallet state of the Dapp**, and **NOT truly Logout/Unlink the MetaMask Wallet form the Dapp**.

**To unlink the MetaMask Wallet from the Dapp.** Please unlink the Connection on the MetaMask Wallet Extension:



After Connect to the MetaMask Wallet, You Can Explore different Campaigns by Scrolling Down or Clicking the “Discover Campaigns” button on the Home Page.



Each Campaign Card will show the remaining time, % of funds, status of the campaign [Active, Success, Fail] and Voting status of campaign [Voting].

Clicking these Campaign Cards can direct you to a detailed Page of the Campaign:

Save the DOGE

DOGE has brought smiles, memes, and countless moments of joy to millions around the world. Now, it's our turn to give back. This crowdfunding campaign is dedicated to saving DOGE and keeping its spirit alive for generations to come. Your contribution isn't just a donation—it's a rallying cry for positivity and fun.

Deadline: 01/05/2026

Status: Active

Donators

0xAA59...1B7d: 0.0001 ETH

Amount (ETH)

DONATE

Deadline Extension Proposal  
No active proposal at this time.

## Create and Manage Your Campaigns

To Create a Campaign, You Must connect to the MetaMask Wallet in order to Press the “Start a Campaign” Button on the Navigation Bar:

**Start a Campaign**



It will Navigate to the Create Campaign Page:

1      2      3

Campaign Details      Deploying Campaign      Campaign Launched

### Create Campaign

Fill in the details below to set up your new campaign.

Campaign Title \*

Description \*

Funding Goal (in ETH) \*

Deadline \*  
dd/mm/yyyy

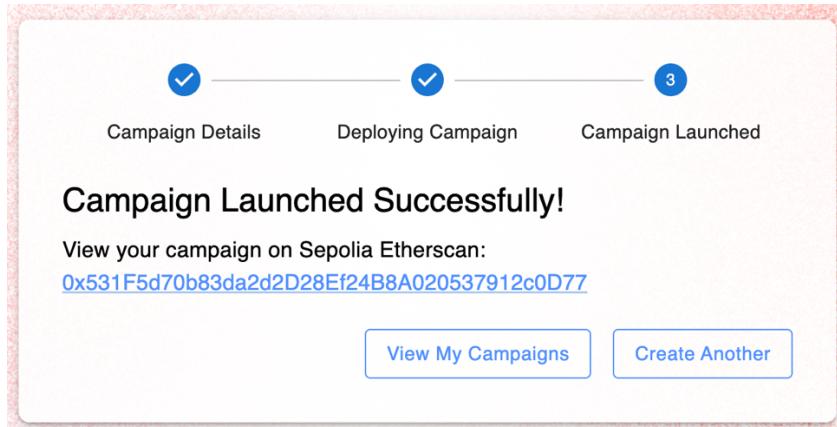
Image URL (optional)

Next

To Create a Campaign, you need to fill in all required, Deadline MUST be in the future, Funding Goal must larger than or equal to 0.0001 ETH.

After you filled all valid details. Click the Next Button, Pay the Gas Fee and wait for the Campaign to be Deployed.

After successful deploy:



You can view your campaign on Sepolia Etherscan by clicking on the address of the campaign address or Create Another Cmapaign.

To Manage Your Campaigns, Click “My Campaign” Button on the Navigation Bar:



It will navigate to the MyCampaigns Pages:

A screenshot of the 'My Campaigns' page. The title 'My Campaigns' is at the top. Below it is a table with columns: Address, Name, Status, Deadline, Funding Progress, Contract Balance, and Deadline Extension Proposal. There are 8 rows of data:

Address	Name	Status	Deadline	Funding Progress	Contract Balance	Deadline Extension Proposal
0xd2E4...81bc	Save the DOGE	Active	01/05/2026	10.0% (0.0001/0.001 ETH)	10.0% (0.0001/0.001 ETH)	Currently no deadline extension proposals.
0xde1F...5Cc	Code for Tomorrow	Active	18/01/2026	0.0% (0/1 ETH)	0.0% (0/1 ETH)	Currently no deadline extension proposals.
0x499d...0a25	The Quantum Leap	Success	29/04/2025	100.0% (0.0001/0.0001 ETH)	0.0% (0/0.0001 ETH)	Currently no deadline extension proposals.
0xBf57...3802	Stay Spicy	Fail	19/04/2025	0.0% (0.0005/1.5 ETH)	0.0% (0.0005/1.5 ETH)	Currently no deadline extension proposals.
0x7588...930d	crowd funding Dapp	Active	18/10/2026	0.0% (0.0001/2.5 ETH)	0.0% (0.0001/2.5 ETH)	0 ETH For vs 0 ETH Against
0xE093...A3d2	Trailblazer Challenge	Success	12/06/2025	100.0% (0.0001/0.0001 ETH)	0.0% (0/0.0001 ETH)	Currently no deadline extension proposals.
0xa3Fe...3223	Road Trip Revival	Fail	19/04/2025	33.3% (0.0001/0.0003 ETH)	0.0% (0/0.0003 ETH)	Currently no deadline extension proposals.
0x67A9...55b5	Good Hair Day Every Day	Active	30/04/2025	20.0% (0.0001/0.0005 ETH)	20.0% (0.0001/0.0005 ETH)	100.0% 0.0001 ETH For vs 0 ETH Against

You can have a look for Your Campaign's brief details: Name, Status, Deadline, Funding Progress, Campaign Contract Balance, Deadline Extension Proposal.

To further Manage Your Campaigns, just Click the Campaign you want to manage on the Campaign Table.

In the Campaign Details Page

Manage Campaign

Save the DOGE

Address: 0xd2E4...81bc

Status: Active

Deadline: 01/05/2026

Funding Target: 0.001 ETH

Current Balance: 0.0001 ETH

Total Donations: 0.0001 ETH

Withdraw Funds

Campaign must be in Success state to withdraw.

Deadline Extension Proposal

No active proposal.

Extension Days

Propose Extension

Propose a new deadline extension.

You are able to see the details of your campaign, and you can withdraw funds and propose any deadline extension proposal here.

### **Propose Deadline Extensions**

To propose Deadline Extensions You need to access the MyCampaign page and click on the campaign you want to manage:

<https://hyhen115.github.io/DeFunds/campaign/<CampaignAddress>/manage>

**Manage Campaign**

**Save the DOGE**

**Address:** 0xd2E4...81bc    **Status:** Active    **Deadline:** 01/05/2026    **Funding Target:** 0.001 ETH    **Current Balance:** 0.0001 ETH    **Total Donations:** 0.0001 ETH

**Withdraw Funds**  
Campaign must be in Success state to withdraw.

**Deadline Extension Proposal**  
No active proposal.  
Extension Days  
Propose Extension  
Propose a new deadline extension.

Just enter the days of Deadline Extension you want and propose the proposal. (Gas fee is needed)

You can also check your voting details when voting in on going in My Campaign Page



After the voting is finalized (3 days)

### Confirm Deadline Extension

No active proposal to confirm.

Box below will pop up a button for you to confirm the voting result and update your extension according to the vote.

### Rules of the Extension Proposal:

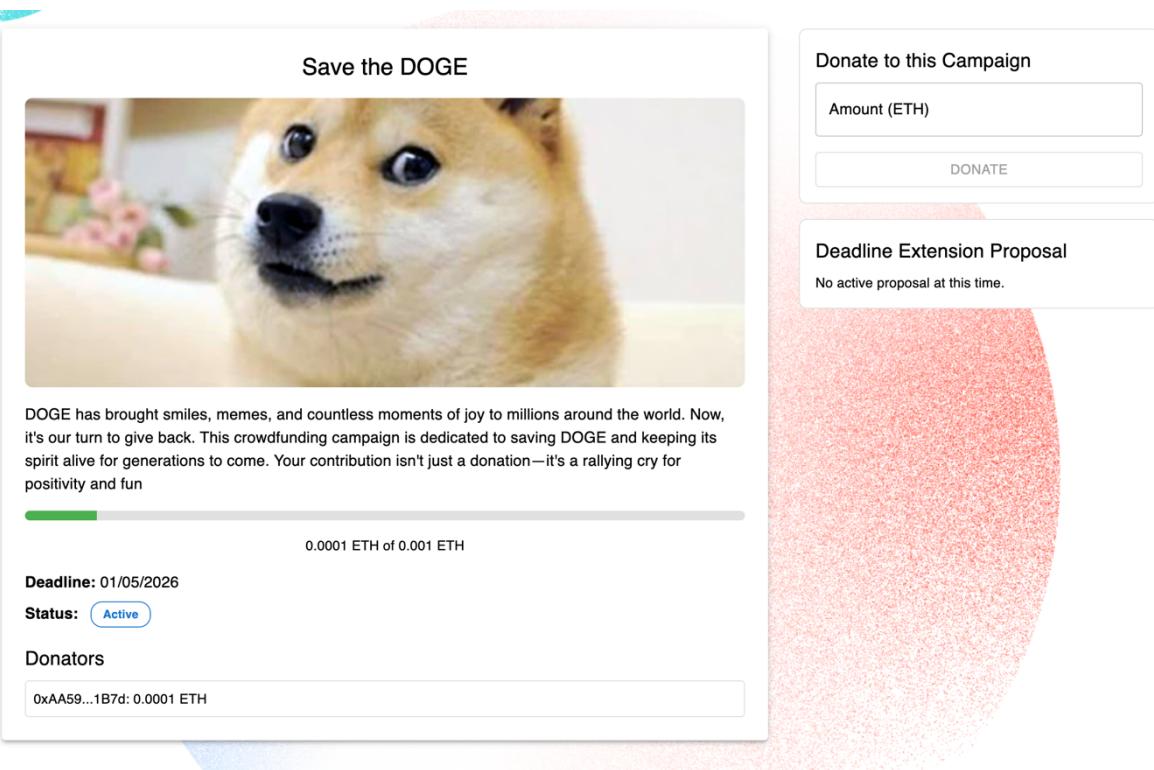
1. Only one Proposal can be active per Campaign
2. Extension Proposal will only be active for 3 Days
3. Only when the total Donations  $\geq$  50% of the target of the Campaign Owner can proposal an Extension Proposal
4. Only Donators are allowed to vote for/against for the Extension Proposal
  - Each vote will have a weight of the value of Donations donated to the campaign for a reward for the supportiveness on the campaign.
  - E.g if a Donator donated 100ETH on the campaign the Donator's vote will have 100 weights

- To if for votes > 50% of donations -> win and deadline will extend after the proposal has ended and needed the owner to confirm the results, otherwise deadline will not be extended
  - Incentives for the voters: if donator trust the campaign owner, vote for to let the campaign gain more time and successfully finished the campaign, else if donator don't trust the campaign owner, vote against and hope the campaign fails and they can request for a refund.
5. When Extension Proposal is active, Users cannot donate to the campaign
    - This is to prevent new voters from skewing the decision-making process mid-vote, add integrity to the voting system.
  6. After the Voting Period is ended, Campaign owner MUST confirm the voting result in the Campaign Details page for Owner to extend deadline of the campaign

### **Donate & Vote for your supported Campaigns**

To Donate or Vote for your supported Campaigns, you can click the Campaign Cards on the Home Screen and navigate to the Campaign Details page.

<https://hyhen115.github.io/DeFunds/campaign/<CampaignAddress>>



The screenshot shows a campaign details page for "Save the DOGE". The main image is a close-up of a Shiba Inu dog's face. Below the image, a text block reads: "DOGE has brought smiles, memes, and countless moments of joy to millions around the world. Now, it's our turn to give back. This crowdfunding campaign is dedicated to saving DOGE and keeping its spirit alive for generations to come. Your contribution isn't just a donation—it's a rallying cry for positivity and fun". A progress bar indicates "0.0001 ETH of 0.001 ETH". Below the progress bar, the deadline is listed as "01/05/2026" and the status as "Active". The "Donators" section shows one entry: "0xAA59...1B7d: 0.0001 ETH". On the right side, there are two boxes: "Donate to this Campaign" with fields for "Amount (ETH)" and a "DONATE" button, and "Deadline Extension Proposal" which states "No active proposal at this time."

To Donate to the campaign, you just need to enter the amount of ETH you want to donate and press the “DONATE” button and pay the gas fee to donate to the campaign.

If a Deadline Extension Proposal is Active and you are one of the donators of the campaign and you have not voted before, the Deadline Extension Proposal will appear:

**Deadline Extension Proposal**

Proposed extension: 30 days  
Voting ends: 21/04/2025, 23:24:00  
Votes For: 0 ETH | Votes Against: 0 ETH



0 ETH For vs 0 ETH Against

Vote For  Vote Against

**SUBMIT VOTE**

**Deadline Extension Proposal**

Proposed extension: 1 days  
Voting ends: 09/05/2025, 19:39:24  
Votes For: 0.0003 ETH | Votes Against: 0.0004 ETH



0.0003 ETH For vs 0.0004 ETH Against

You have already voted.

Just select what to vote, and press “SUBMIT VOTE” button to vote (gas fee needed)

### **Get Funds for your Project**

If the Campaign is success. Press the “Withdraw” Button to withdraw All Balance form the Campaign contract.

## Manage Campaign



### The Quantum Leap

**Address:** 0x499d...0a25

**Status:** Success

**Deadline:** 29/04/2025

**Funding Target:** 0.0001 ETH

**Current Balance:** 0 ETH

**Total Donations:** 0.0001 ETH

### Withdraw Funds

[Withdraw](#)

No funds available to withdraw.

### Deadline Extension Proposal

No active proposal.

[Extension Days](#)

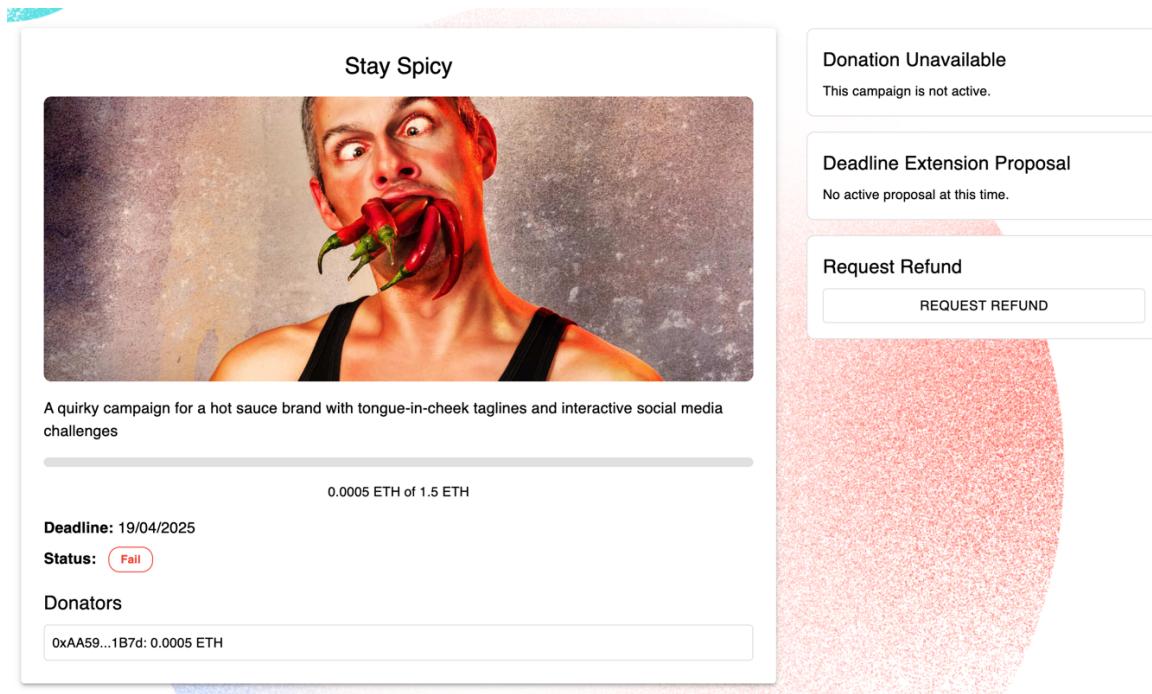
[Propose Extension](#)

Propose a new deadline extension.

After withdrawing the funds out of the contract, the Current Balance of the Contract should be 0 ETH.

### Refund if Campaigns are Failed

If You are a donator and the campaign is failed, you can click the “REQUEST REFUND” button to request a refund for your donations, your previous donations will be extracted from the campaign contract.



## Security Measures for Smart Contracts

### [crowdfundingFactory.sol](#)

#### **ReentrancyGuard – nonReentrant modifier**

Protects `createCampaign()` against potential reentrancy attacks

#### **OnlyOwner modifier**

Restrict access for `togglePause()` mainly for website maintainance and only factory owner can access it

#### **whenNotPaused modifier**

Allows pausing campaign creation in maintainance or other error happens

#### **createCampaign() Input validations**

name length: >0 can't be empty

campaign target: >0

deadline: > block.timestamp to avoid potential integer underflow and unvalid deadlines

## **crowdfunding.sol**

### **ReentrancyGuard – nonReentrant modifier**

To protect withdraw() and refund() from Reentrancy Attacks as they call external functions .transfer()

### **OnlyOwner modifier**

To restrict access to sensitive functions withdraw() and proposeDeadlineExtension(), confirmDeadlineExtension() which is exclusive to campaign owners

### **campaignActive modifier**

To restrict access of any invalid actions for functions donate(), proposeDeadlineExtension(), voteOnDeadlineExtension(), confirmDeadlineExtension(), to avoid cases like donate even campaign is success or failed

### **Input Validations**

constructor:

same validations as createCampaign() on crowdfundingFactory.sol

donate():

msg.value > 0 to donate

require !curProposal.active, prevent new voters from skewing the decision-making process mid-vote, adds integrity to the voting system.

withdraw():

first update Campaign State using refreshCampaignState() then require campaign state is success to continue withdraw

checking balance is not 0 in the campaign to transfer ETH from contract to owner wallet

payable(owner).transfer(balance); ensures only transfer to the owner not msg.sender even onlyOwner modifier is activated, as miners can change the parameter of the functions

refund():

first update Campaign State using refreshCampaignState() then make user the campaign is failed to continue

make sure the campaign contract have balance to refund

proposeDeadlineExtension():

    require only one proposal is activated, avoid double proposal

    require extension period > 0

    require totalDonation >= 50% of targets

        calculations: totalDonation \* 2 > target.: avoid division by zero error or integer division truncation issues. And to reduce the impacts of Sybil Attacks, ensuring at least 50% of funds are fulfills so when a deadline extension vote is going on, sybil attackers need a higher cost for attacking and controlling the weighted vote.

voteOnDeadlineExtension():

    ensure proposal is active

    ensure the current time is valid for voter to vote

    ensure only donator can vote

    ensure no double voting

    ensure the vote weight is > 0

confirmDeadlineExtension():

    ensure a proposal is active

    ensure the vote is already ended and ready for the owner to confirm the vote result

## **Safe fund transfers**

In withdraw() and refund() uses transfer() with balance checks and update the states first then perform transfer() to eliminate the impact of any failure transfers()

## **Weighted voting**

In safety perspective weighted voting is to eliminate the impact of Sybil Attacks as the cost of impact on the votes needs to have a great cost Attackers or Campaign Owners cannot easily use Sybil Attacks to dominate the voting power as it will be super expensive

## **Single vote checking**

We have a mapping to track if the donator has voted hasVoted[msg.sender] to avoid double voting

## Avoid 0 division calculations on voting mechanism

confirmDeadlineExtension() will check if the votes >50% to pass the proposal, voteFor > totalDonation/2 will cause some division by zero error or integer division truncation issues so we change it to voteFor \* 2 > totalDonations

## Test Cases & logs

Below I uses manual testing and ai gen testing, I uses ai gen testing first and manual tested most the remaining possible test cases. For Ai gen testing cases and results I have putted the files and codes under contract/test/ you are able to find in the source code or my github page <https://github.com/Hyhen115/DeFunds>

### Testcase and Test result generated by <https://mycontract.fun/>

Details please refer to contract/test/testcase.sol or contract/test/testResult.sol

Test Case 1: Donation Success and State Update

Test Case 2: Donation with Zero Value Should Revert

Test Case 3: Withdraw Finds Successfully After Reaching Target

Test Case 4: Refund Funds After Campaign Failure

Test Case 5: Propose Deadline Extension (Only Owner, Conditions Met)

Test Case 6: Vote on Deadline Extension and Confirm Extension

Test Case 7: Voting Reverts When Donator Votes Twice

Test Case 8: Create Campaign via Factory (Successful Creation)

Test Case 9: Toggle Pause in Factory Prevents Campaign Creation

Suite result: ok. 9 passed; 0 failed; 0 skipped; finished in 2.43ms (1.80ms CPU time)

Ran 1 test suite in 1.28s (2.43ms CPU time): 9 tests passed, 0 failed, 0 skipped (9 total tests)

### Testcase and Test result by Manual Testing

Test Case 1: Donation During Voting Period Should Revert

- Donate 10 wei when curProposal.active is true

```

withdraw
campaignNa...
curProposal
0: uint256: proposedDays 10
1: uint256: votesFor 0
2: uint256: votesAgainst 0
3: bool: active true
deadline

transact to CrowdFund.donate pending ...
[vm] from: 0x5B3...eddC4 to: CrowdFund.donate() 0xd2a...fd005 value: 20 wei data: 0xed8...8c68e logs: 0 hash: 0x629...ddd82
transact to CrowdFund.donate errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "voting period now, cannot donate".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

```

## Test Case 2: Non-Donator Vote should revert

- 0xD870fA1b7C4700F2BD7f44238821C26f7392148 is a non donator

donors    0xD870fA1b7C4700

getContract...  
0: uint256: 60

getState  
hasDonated address

image  
owner  
0: address: 0x5B38Da6a70fc56854d Cf6B05Fc8875f56bedd4

state  
target  
0: uint256: 100

totalDonatio...  
0: uint256: 60

voteEndTime

Reason provided by the contract: "voting still ongoing".  
If the transaction failed for not having enough gas, try increasing the gas limit gently.

transact to CrowdFund.refund pending ...

`[vm] from: 0x5B3...eddC4 to: CrowdFund.refund() 0xd2a...fd005 value: 0 wei data: 0x590...e1ae3 logs: 0 hash: 0xcc9...b1b0f`

transact to CrowdFund.refund errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "refund not available".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

call to CrowdFund.donators

`[call] from: 0xD870fA1b7C4700F2BD7f44238821C26f7392148 to: CrowdFund.donators(uint256) data: 0xac6...92148`

call to CrowdFund.donators errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Note: The called function should be payable if you send value and the value you send should be less than your current balance.
If the transaction failed for not having enough gas, try increasing the gas limit gently.

`[vm] from: 0xd08...92148 to: CrowdFund.voteOnDeadlineExtension(bool) 0xd2a...fd005 value: 0 wei data: 0x646...00001 logs: 0 hash: 0x35c...e05a7`

transact to CrowdFund.voteOnDeadlineExtension errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "non donator cant join voting".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

## Test Case 3: Refund Attempt in Success State Should Revert

target  
0: uint256: 100

totalDonatio...  
0: uint256: 170

getState  
0: uint8: 1

`[vm] from: 0xD8...92148 to: CrowdFund.refund() 0xE95...9D78F value: 0 wei data: 0x590...e1ae3 logs: 0 hash: 0x147...e2847`

transact to CrowdFund.refund errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "refund not available".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

## Test Case 4: Non-Owner Proposing Deadline Extension Should Revert

- Owner:

The screenshot shows a blockchain interface. On the left, a sidebar has buttons for 'donate', 'proposeDeadline...', 'refund', 'voteOnDeadline...', 'withdraw', 'campaignName...', 'curProposal', and 'deadline'. The 'curProposal' button is highlighted. The main area displays the following information:

```

owner
0: address: 0x5B38Da6a701c568545d
CfcB03FcB875f56beddC4

```

Sender: 0x1aE0EA34a72D944a8C7603FfB3eC30a6669E454C

Below this, a transaction log shows:

```

donate
proposeDeadline... 10
refund
voteOnDeadline... bool _voteFor
withdraw
campaignName...
curProposal
deadline

transact to CrowdFund.proposeDeadlineExtension pending ...
[vm] from: 0x1aE...E454C to: CrowdFund.proposeDeadlineExtension(uint256) 0xd2a...fd005 value: 0 wei data: 0x69a...0000a logs: 0 hash: 0xb0b...0dc9d
transact to CrowdFund.proposeDeadlineExtension errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "only owner".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

```

### Test Case 5: Confirm Deadline Extension with Insufficient Votes

The screenshot shows two main sections. On the left, under 'curProposal', the following fields are listed:

- 0: uint256: proposedDays 10
- 1: uint256: votesFor 0
- 2: uint256: votesAgainst 0
- 3: bool: active true

On the right, under 'totalDonatio...', the following field is listed:

- 0: uint256: 80

0 vs 0 , 80 total donations

The screenshot shows a 'logs' section with the following entry:

```

logs
[{"from": "0xE958D39c97216b45b46dC45c846931F12E99078F",
"topic": "0x0bd853d292920b6c2de3b7f029ead083ed953dedd08fa1c084d2b05a5d5f714d",
"event": "DeadlineExtensionFailed",
"args": {}}
]

```

### Test Case 6: Create Campaign with Invalid Parameters Should Revert

- Invalid target

The screenshot shows a 'CREATECAMPAIGN' section with the following parameters:

- \_name: test
- \_description: test
- \_target: 0
- \_deadline: 1745971200
- \_image: string

Below these fields are 'CallData' and 'Parameters' buttons, followed by a 'transact' button.

The transaction log shows:

```

Balance: 0 ETH
CREATECAMPAIGN
transact to CrowdFundFactory.createCampaign pending ...
[vm] from: 0x583...eddC4 to: CrowdFundFactory.createCampaign(string,string,uint256,uint256,string) 0x8FC...9A836 value: 0 wei data: 0xd4e...00000 logs: 0 hash: 0x6db...dd2d1
transact to CrowdFundFactory.createCampaign errored: Error occurred: revert.

revert
The transaction has been reverted to the initial state.
Reason provided by the contract: "target must > 0".
If the transaction failed for not having enough gas, try increasing the gas limit gently.

```

### Test Case 7: Withdraw Attempt with Zero Balance Should Revert

CROWDFUND AT 0xD2A...I

Balance: 0 ETH

call to CrowdFund.owner

```

call [call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: CrowdFund.owner() data: 0x8da...5cb5b
call to CrowdFund.getContractBalance

```

call [call] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: CrowdFund.getContractBalance() data: 0x6f9...fb98a
transact to CrowdFund.withdraw pending ...

[x] [vm] from: 0x5B38Da6a701c568545dCfcB03FcB875f56beddC4 to: CrowdFund.withdraw() 0xd2a...fd005 value: 0 wei data: 0x3cc...fd60b logs: 0 hash: 0xa84...80b7b
transact to CrowdFund.withdraw errored: Error occurred: revert.

revert  
The transaction has been reverted to the initial state.  
Reason provided by the contract: "Campaign not met target".  
If the transaction failed for not having enough gas, try increasing the gas limit gently.

## Test Case 8: Propose Deadline Extension with Insufficient Funding Should Revert

- 10 wei funds / 100 target

CROWDFUND AT 0xD2A...I

Balance: 0.0000000000000001 ETH

address campaignAddress;  
address owner;  
string name;  
uint256 createTime;

Campaign[] public campaigns; // list of campaigns that has created  
mapping(address => Campaign[]) public userCampaigns; // mappings for address of the corresponding

event CampaignCreated(address indexed campaignAddress, address indexed owner, string name);

// constructor to construct the factory  
constructor() { 0x35b0150 gas 3538000 gas  
owner = msg.sender;

// create campaign  
function createCampaign(string memory \_name, string memory \_description, uint256 \_target, uint256 \_deadline, string memory \_image) external whenNotPaused  
// input validation  
require(\_name.length > 0, "name is empty");  
require(\_deadline > now, "a deadline must be in the future").

transact to CrowdFund.donate pending ...

[checkmark] [vm] from: 0xAB8...35cb2 to: CrowdFund.donate() 0xd2a...fd005 value: 10 wei data: 0xed8...8c68e logs: 0 hash: 0x6cd...801a0
call to CrowdFund.getContractBalance

call [call] from: 0xAB8483F64d9C6d1EcF9b849Ae677dD3315835cb2 to: CrowdFund.getContractBalance() data: 0x6f9...fb98a
call to CrowdFund.target

call [call] from: 0xAB8483F64d9C6d1EcF9b849Ae677dD3315835cb2 to: CrowdFund.target() data: 0xd4b...83992
transact to CrowdFund.proposeDeadlineExtension pending ...

[x] [vm] from: 0x5B3...eddC4 to: CrowdFund.proposeDeadlineExtension(uint256) 0xd2a...fd005 value: 0 wei data: 0x69a...0000a logs: 0 hash: 0x7c8...9c05b
transact to CrowdFund.proposeDeadlineExtension errored: Error occurred: revert.

revert  
The transaction has been reverted to the initial state.  
Reason provided by the contract: "Need >= 50% target to propose extension".  
If the transaction failed for not having enough gas, try increasing the gas limit gently.

- Deadline 123

[x] [vm] from: 0xdD8...92148 to: CrowdFund.(constructor) value: 0 wei data: 0x608...00000 logs: 0 hash: 0x44f...e716e
creation of CrowdFund errored: Error occurred: revert.

revert  
The transaction has been reverted to the initial state.  
Reason provided by the contract: "deadline must be in the future".  
If the transaction failed for not having enough gas, try increasing the gas limit gently.

## Test Case 9: Confirm Deadline Extension with No Votes

The screenshot shows two main sections. On the left, under 'curProposal', there are four items: 0: uint256: proposedDays 10, 1: uint256: votesFor 0, 2: uint256: votesAgainst 0, and 3: bool: active true. On the right, under 'totalDonatio...', there is one item: 0: uint256: 80.

Total donation is 80

Emitted DeadlineExtensionFailed

The screenshot shows a single log entry with the following details: "from": "0xE958D39c97216b45b46dC45c846931F12E99078F", "topic": "0x0bd853d292920b6c2de3b7f029ead083ed953dedd08fa1c084d2b05a5d5f714d", "event": "DeadlineExtensionFailed", "args": {}.

Test Case 10: Refund Attempt by Non-Donor Should Revert

- 0xd870fA1b7C4700F2BD7f44238821C26f7392148 is a non donorator

The screenshot shows a transaction attempt to call the 'refund' function. The transaction fails with the error: "[vm] from: 0x5B3...eddC4 to: CrowdFund.refund() 0xd2a...fd005 value: 0 wei data: 0x590...eiae3 logs: 0 hash: 0xcc9...b1b0f". The revert message indicates that the transaction has been reverted to the initial state due to a "refund not available" reason.

Cannot refund

The screenshot shows a transaction attempt to call the 'refund' function. The transaction fails with the error: "[vm] from: 0xd8...92148 to: CrowdFund.refund() 0xd2a...fd005 value: 0 wei data: 0x590...eiae3 logs: 0 hash: 0x679...3d9a6". The revert message indicates that the transaction has been reverted to the initial state due to a "refund not available" reason.

Test Case 11: Propose Deadline Extension with Zero Days Should Revert

The screenshot shows a transaction attempt to call the 'proposeDeadlineExtension' function with zero days. The transaction fails with the error: "[vm] from: 0x617F2E2f072FD905503197092aC168c91465E7f2 to: CrowdFund.proposeDeadlineExtension() data: 0x6f9...fb98a". The revert message indicates that the transaction has been reverted to the initial state due to an "Invalid extension period" reason.

## Test Case 12: Confirm Deadline Extension Before Voting Period Ends Should Revert

The screenshot shows a transaction revert message. At the top, a blue bar contains the text "curProposal". Below it, a list of four items is shown: "0: uint256: proposedDays 10", "1: uint256: votesFor 0", "2: uint256: votesAgainst 0", and "3: bool: active true". In the main body of the message, there is an error icon followed by the text: "[vm] from: 0x5B3...eddC4 to: CrowdFund.confirmDeadlineExtension() 0xd2a...fd005 value: 0 wei data: 0x6d5...7c120 logs: 0 hash: 0xaf8...177ad transact to CrowdFund.confirmDeadlineExtension errored: Error occurred: revert." Below this, the word "revert" is printed, followed by the message: "The transaction has been reverted to the initial state. Reason provided by the contract: "voting still ongoing". If the transaction failed for not having enough gas, try increasing the gas limit gently."

## Test Case 13: Multiple Donors Voting with Exact 50% VotesFor Should Fail

The screenshot displays two contract states. On the left, under "curProposal", the following variables are listed: "0: uint256: proposedDays 10", "1: uint256: votesFor 40", "2: uint256: votesAgainst 40", and "3: bool: active true". On the right, under "totalDonation...", the variable "0: uint256: 80" is shown.

40 vs 40 with total 80

The screenshot shows a log entry. The "logs" field contains a single object with the following properties: "from": "0xE958D39c97216b45b46dC45c846931F12E99D78F", "topic": "0x0bd853d292920b6c2de3b7f029ead083ed953dedd08fa1c084d2b05a5d5f714d", "event": "DeadlineExtensionFailed", and "args": {}.

Emitted deadlineExtension Failed