K. J. Somaiya College of Engineering, Mumbai-77

Department of Computer Engineering

Batch: A2 Roll No.: 16010121045

Mini Project

Grade: AA / AB / BB / BC / CC / CD /DD

Signature of the Staff In-charge with date

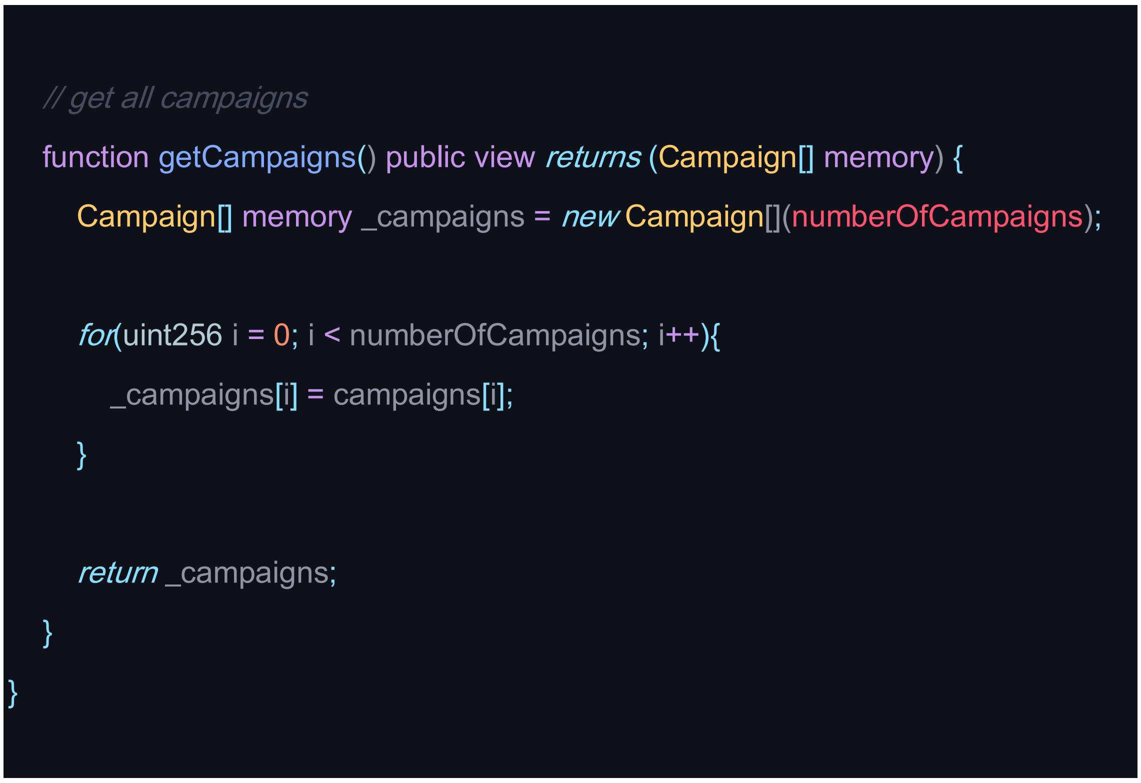
Title: Mini Project

Implementation Details:

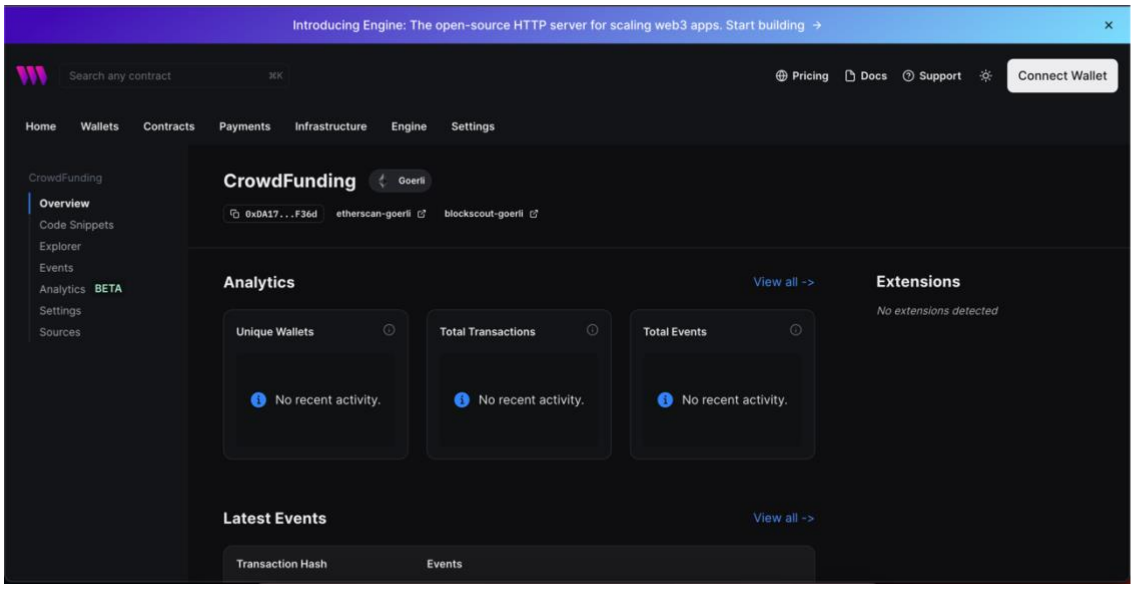
```
// SPDX-License-Identifier: UNLICENSED
pragma solidity ^0.8.9;

contract CrowdFunding {
    struct Campaign {
        address owner;
        string title;
        string description;
        uint256 target;
        uint256 deadline;
        uint256 amountCollected;
        string image;
        uint256[] donations;
        address[] donators;
    }
```

```
// helps to use campaigns[0] in solidity
mapping(uint256 => Campaign) public campaigns;

// global variable
uint256 public numberOfCampaigns = 0;

// create a new campaign
function createCampaign(
    address _owner,
    string memory _title,
    string memory _description,
    uint256 _target,
    uint256 _deadline,
    string memory _image
) public returns (uint256) {
    Campaign storage campaign = campaigns[numberOfCampaigns];

    require(_deadline < block.timestamp , "The deadline should be an upcoming
date.");

    campaign.owner = _owner;
    campaign.title = _title;
    campaign.description = _description;
    campaign.target = _target;
    campaign.deadline = _deadline;
    campaign.image = _image;
    numberOfCampaigns++;
```

```
        return numberOfCampaigns-1;
    }

    // donate to a campaign
    function donateToCampaign(uint256 _id) public payable{
        uint256 amount = msg.value;

        Campaign storage campaign = campaigns[_id];

        campaign.donators.push(msg.sender);
        campaign.donations.push(amount);


        (bool sent,) = payable(campaign.owner).call{value: amount}("");

        if(sent){


            campaign.amountCollected = campaign.amountCollected + amount;
        }
    }

    // get donators
    function getDonators(uint256 _id) public view returns(address[] memory,
uint256[] memory){
        return (campaigns[_id].donators , campaigns[_id].donations);
    }
```



```
    // get all campaigns
    function getCampaigns() public view returns (Campaign[] memory) {
        Campaign[] memory _campaigns = new Campaign[](numberOfCampaigns);

        for(uint256 i = 0; i < numberOfCampaigns; i++){
            _campaigns[i] = campaigns[i];
        }

        return _campaigns;
    }
}
```



Introducing Engine: The open-source HTTP server for scaling web3 apps. Start building →

CrowdFunding Goerli

0xDA17...F36d etherscan-goerli blockscout-goerli

Analytics View all ->

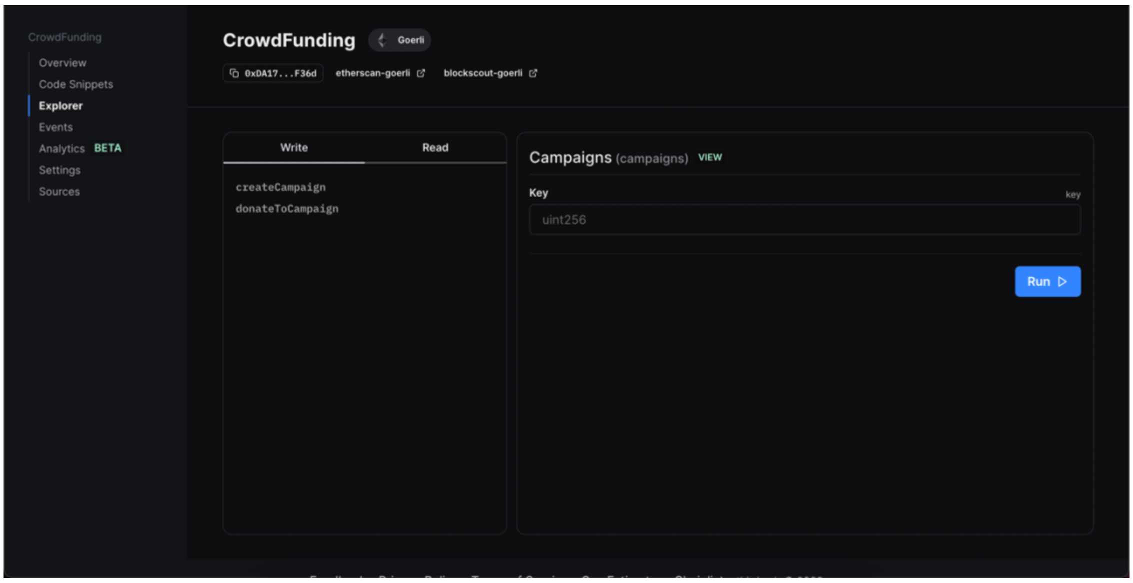
Unique Wallets	Total Transactions	Total Events
No recent activity.	No recent activity.	No recent activity.

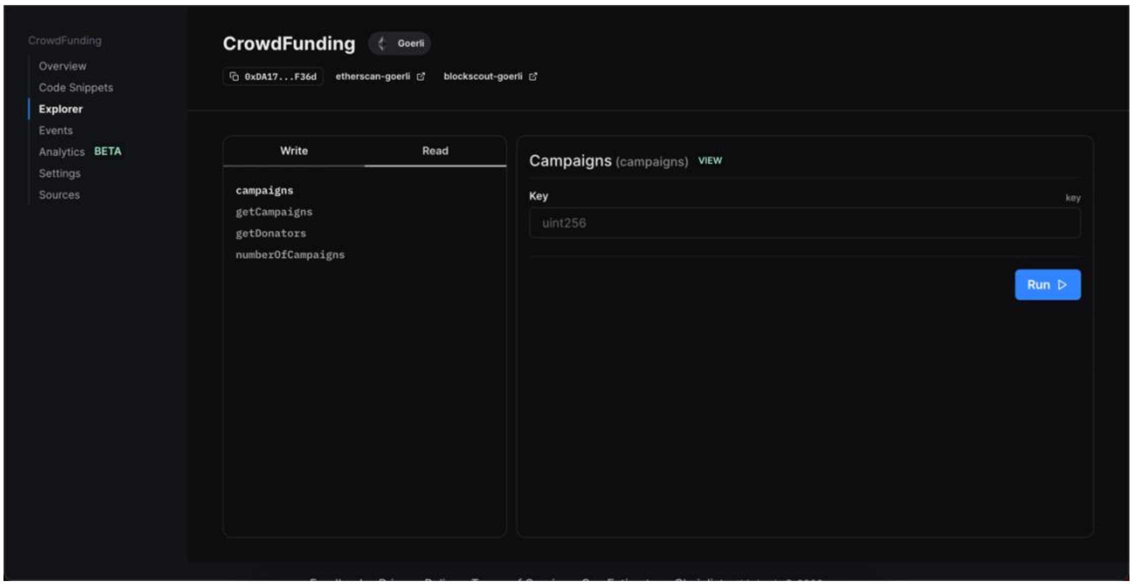
Extensions

No extensions detected

Latest Events View all ->

Transaction Hash	Events





Conclusion:-

Completed the mini project.