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Eastern Switzerland
University of Applied Sciences

CharityVoting

Challenge Task

Blockchain (BICH) HS 2022

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13 December 2022

Department of Computer Science

Agenda

- Idea
- Technologie Stack
- Architecture
- Smart Contract
- Frontend
- Demo
- Questions

Idea

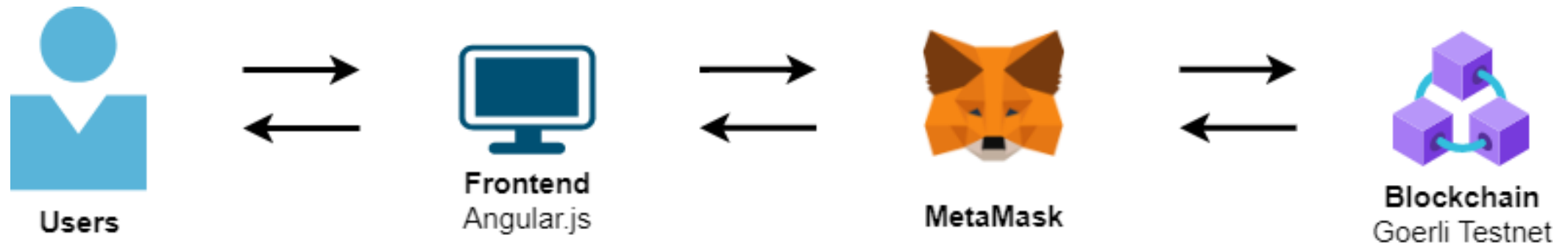


- Donate the wide variety of colorful dresses of our beloved Queen Elizabeth to a good cause.
- Choose which dress gets donated to which institution.
- Create a platform to vote for dresses and institutions

Technologie Stack



Architecture





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Smart Contracts

CharityNftContract

CharityVotingContract

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Smart Contract

CharityNftContract

- mintToken

mintToken

imageName:	BlackDress
imagePath:	https://drive.google.com/file/d/1oaP6sDvJxYlXG3i2HKZM2yrEtuvVQrzv/view?usp=share_link
imageHash:	0xe420aeff2a183680b02de6f01219017ecb6182f6c65db82e358e5f73c0ebc9b8
charityVotingContract:	"0x1c7962aC91d54EAb55853b7d26fA97cb98BD9078"

getVotableNfts

Calldata Parameters **transact**

- tokenURI

tokenURI

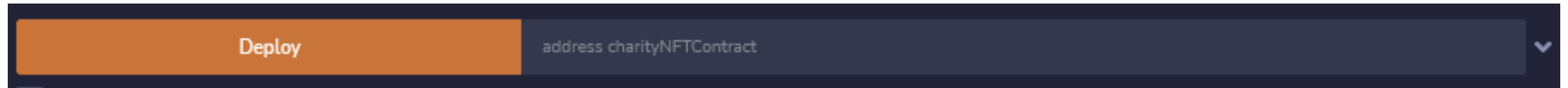
tokenId:	"0xe420aeff2a183680b02de6f01219017ecb6182f6c65db82e358e5f73c0ebc9b8"
----------	--

Calldata Parameters **call**

0: string: https://drive.google.com/https://drive.google.com/file/d/1oaP6sDvJxYlXG3i2HKZM2yrEtuvVQrzv/view?usp=share_link

CharityVotringContract - deploy

- charityNftContract address to call ERC721 transfer



CharityVotringContract - structs

```
struct CharityNFT {  
    uint256 nft;  
    int votes;  
}  
  
struct CharityOrganisation {  
    address organisation;  
    int votes;  
}  
  
struct Participant {  
    address userAddress;  
    bool voted;  
}
```

- Used to store Data
- Arrays of structs
- Counters to add up votes

CharityVotingContract - voting

- initNewVotring

initNewVoting

votableNFTs:	["0x7382b1f26b6cdadd5b912ad95577bbe498c3792880198d3ee6153362b31fc777","0x8f0779b1ba385a4bd946cad2237f691274e02f2b934dfc90e0774a0766d14570"]
votableOrganisations:	["0xAb8483F64d9C6d1EcF9b849Ae677dD3315835cb2","0x4B20993Bc481177ec7E8f571ceCaE8A9e22C02db"]
votingParticipants:	["0x78731D3Ca6b7E34aC0F824c42a7cC18A495cabaB","0x17F6AD8Ef982297579C203069C1DbfFE4348c372","0x617F2E2"]
votingDeadline:	"1670869854"

Calldata Parameters **transact**

- Vote

vote

nft:	"0x8f0779b1ba385a4bd946cad2237f691274e02f2b934dfc90e0774a0766d14570"
organisation:	"0x4B20993Bc481177ec7E8f571ceCaE8A9e22C02db"

Calldata Parameters **transact**

CharityVotingContract – other functions

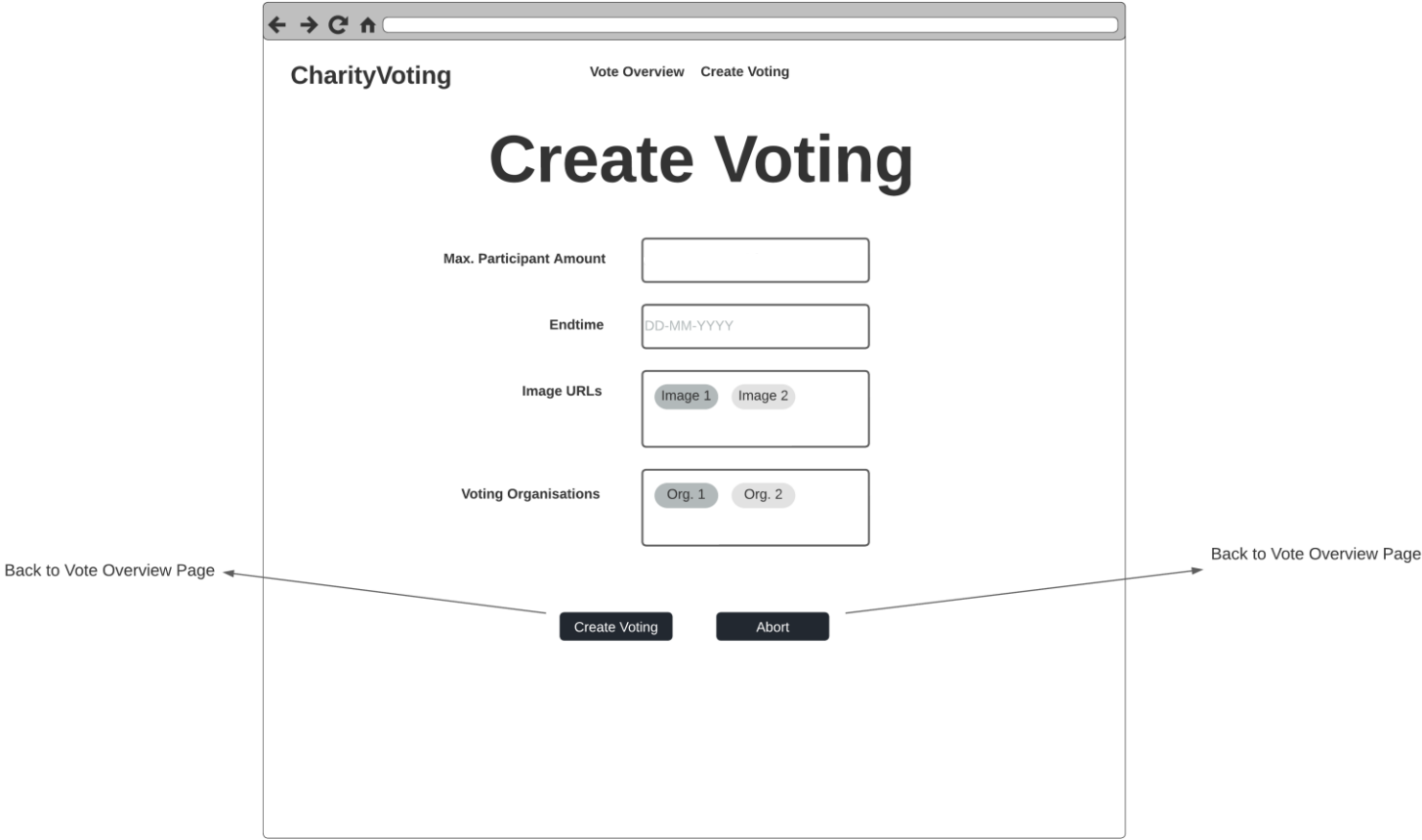
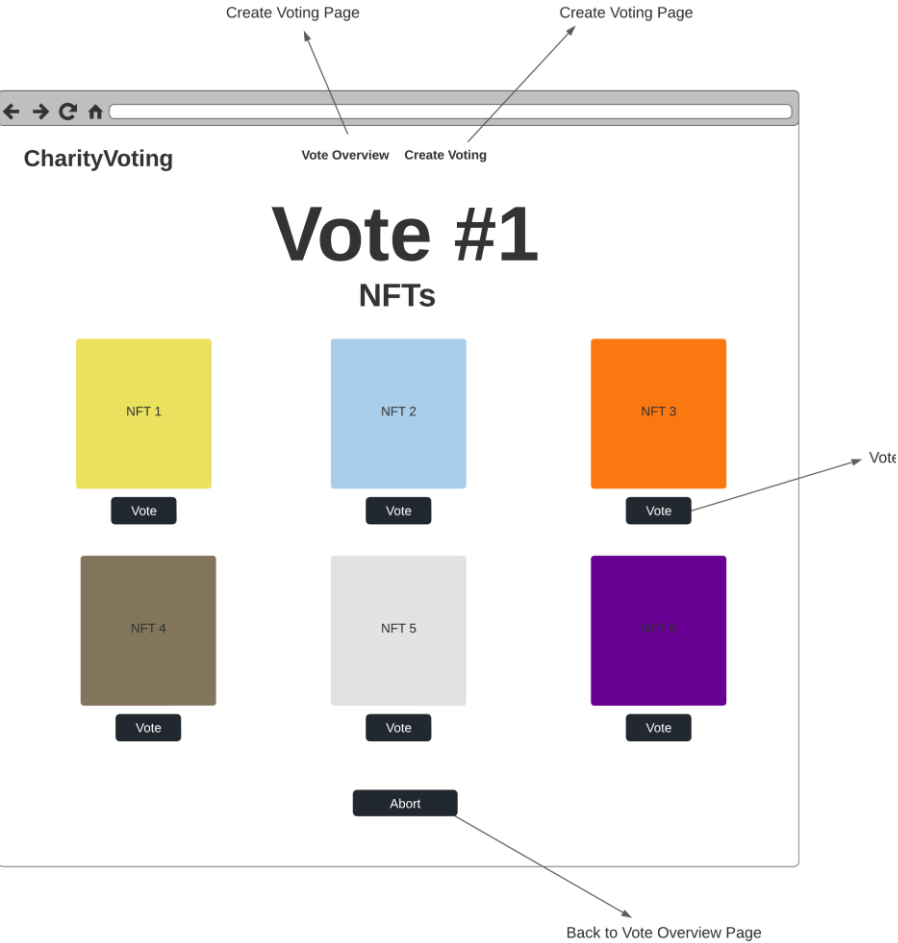
- getVotableNfts
- getVotableOrganisations
- isVotingInProgrss

```
getVotableN...  
0: uint256[]: votableNFTs 52246895850220495539584954658364530241008076900351151379546732449678284015479,64693945179690332386262  
313394920070061375044774510916482315721882072171758960  
  
getVotableO...  
0: address[]: votableOrganisations 0xAb8483F64d9C6d1EcF9b849Ae677dD3315835cb2,0x4B20993Bc481177ec7E8f571ceCaE8A9e22C02db  
  
isVotingInPr...  
0: bool: votingInProgress true
```

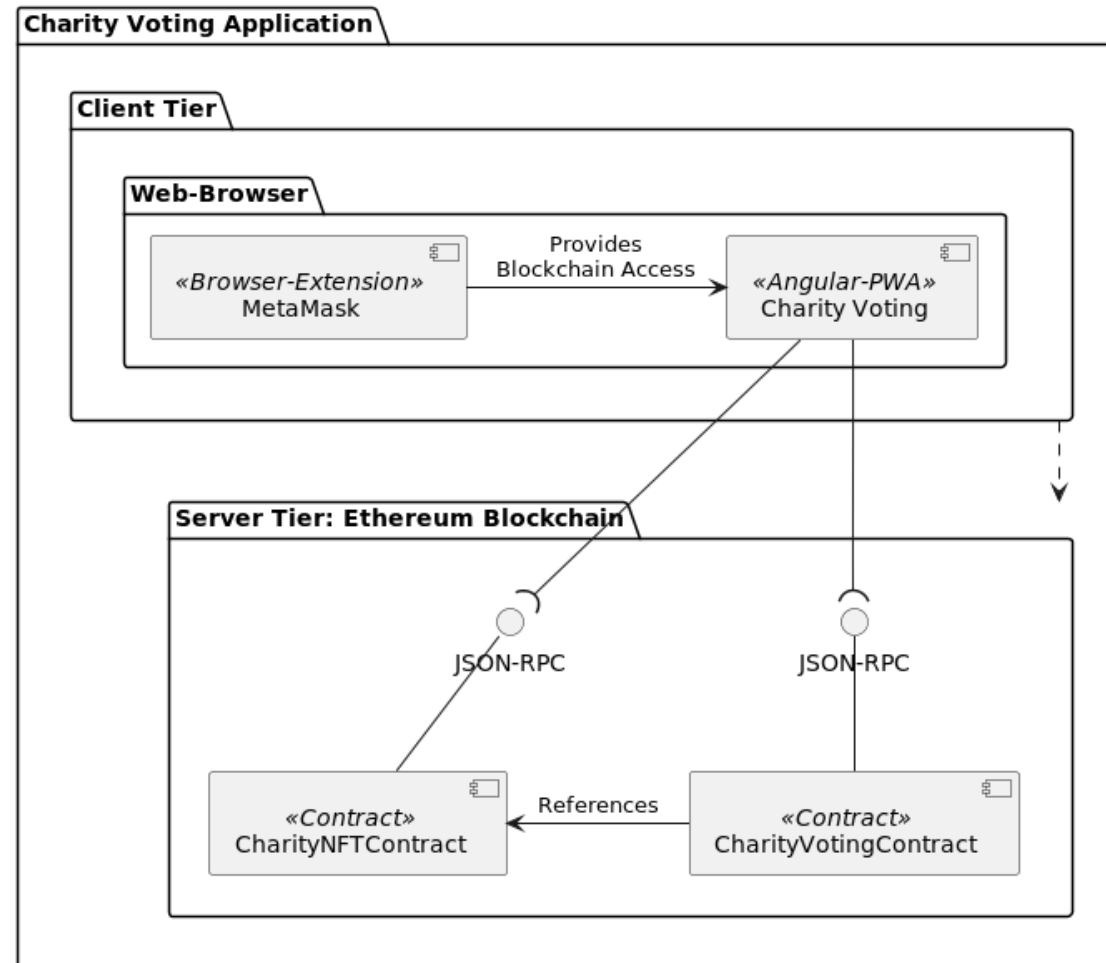
CharityVotingContract - evaluateVoting

- `event PublishVotingResult(uint votingId, address winnerOrganisation, uint256 winnerNFT);`
- `emit PublishVotingResult(_votingIdCounter, winnerOrganisation, winnerNFT);`

Wireframes



Frontend





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Demo

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Question Time

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