

Product Specification - UI & UX Prototype

Petar Radojević, Ivan Džambasanović, Branko Grbić

September 7, 2021.

1 Introduction

This paper represents the product specifications of the decentralized donation application on Ethereum as well as its UI & UX prototype. Backend consists of smart contracts that control the business logic of the product, go, nodejs and postgresql, while frontend is done using Svelte.

Logic of the application is described as follows:

1. Creating campaign with Smart Contract

Creating a campaign is a simple process of entering campaign details such as recipients, goals, etc. The important part is that the address is immutable and accessible to everyone so that donors can have a clear insight into who the money will go to if the campaign is successful. The main components of our Auction DApp are:

- (a) A smart contract that represents a repository of campaigns and allows them to be created
- (b) A smart contract that represents NFT
- (c) A smart contract for token swap
- (d) A web frontend using the Svelte framework
- (e) The web3.js library to connect to Ethereum chains (via MetaMask)

2. Donations

Anyone can donate money at any time until the campaign is over. This is enabled by calling the contribute function

3. Switch Networks

User can switch from Ethereum mainnet to Polygon Layer 2 solution.

4. Swap

User can swap currencies between one network or transfer currency to different Layer.

5. Goal

If the goal is reached, the money is paid to the recipient immediately upon reaching it and the campaign is successfully completed. In the second case the money is forwarded to the recipient and the campaign is also successfully completed

6. NFT Rewarding

After donation, user can choose whether he wants to mint nft, as award for a donation.

7. Help

There is a Guide and Contact Us sections in navigation bar which can help navigating and getting help using our dApp.

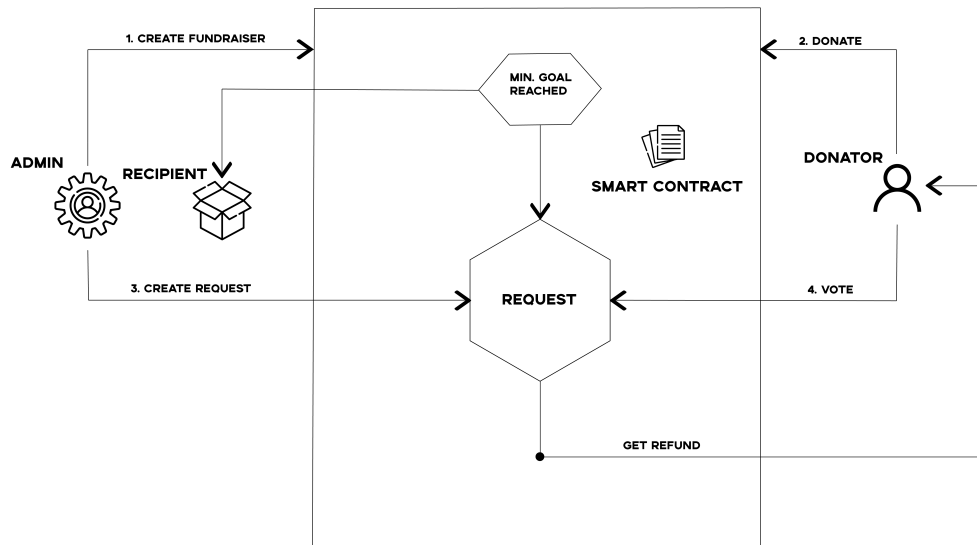


Figure 1. Smart Contract Scheme

2 Home

Home behaves like index for our site, containing general info about our website. The idea is to present to users our vision and the reason why we introduced crypto donations.

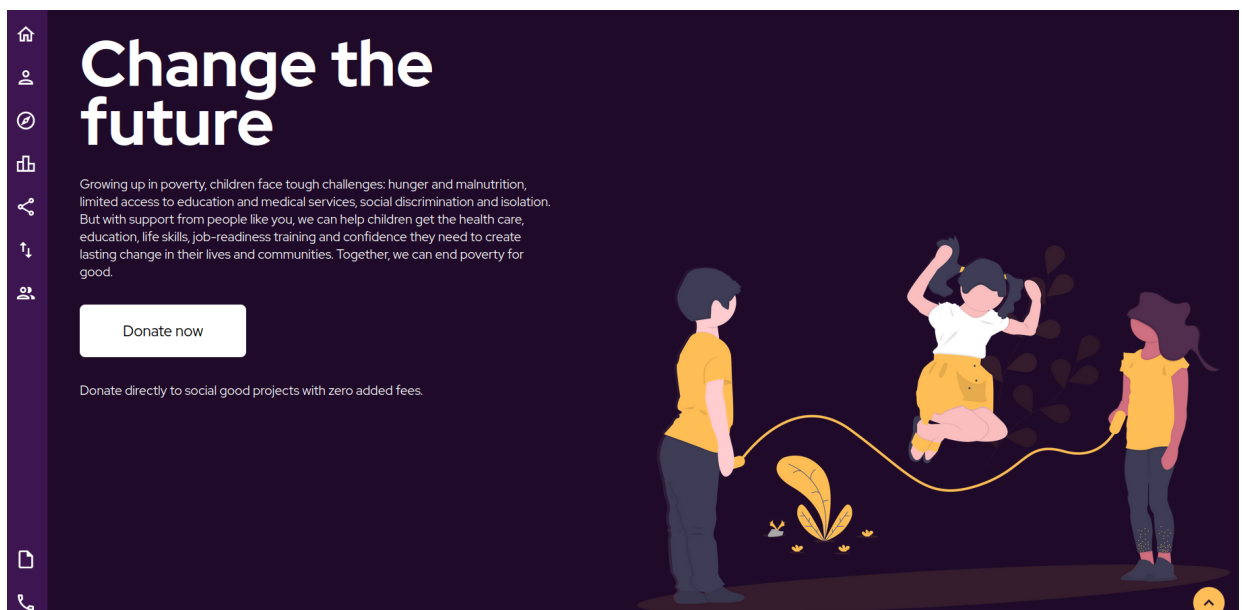


Figure 2. Home page - 1st part



Figure 3. Home page - 2nd part

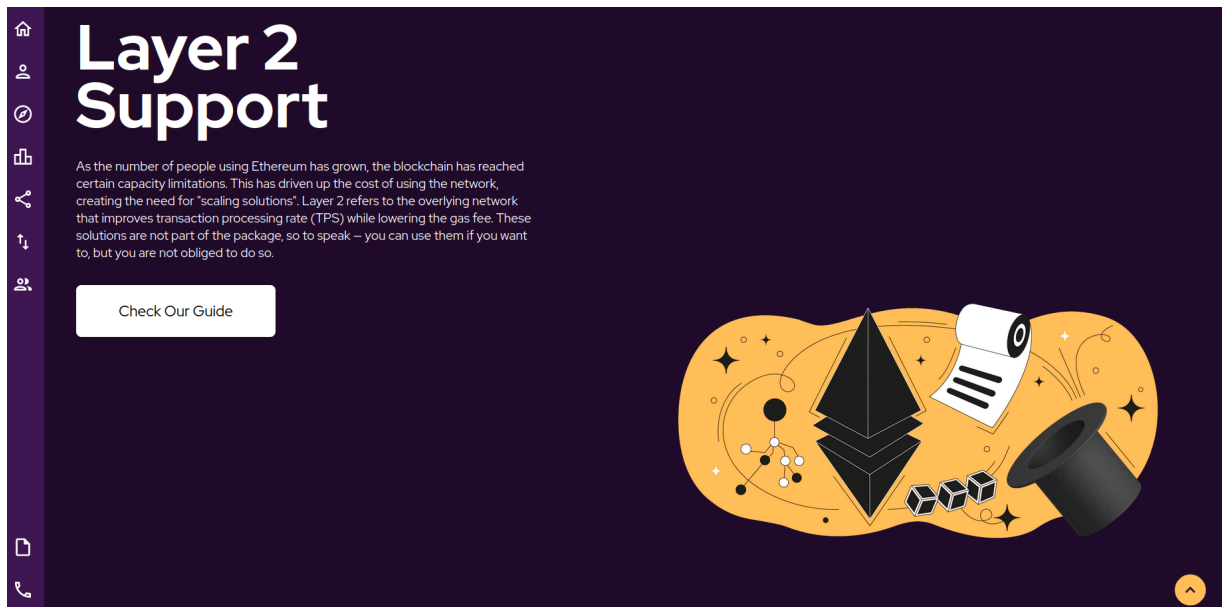


Figure 4. Home page - 3rd part

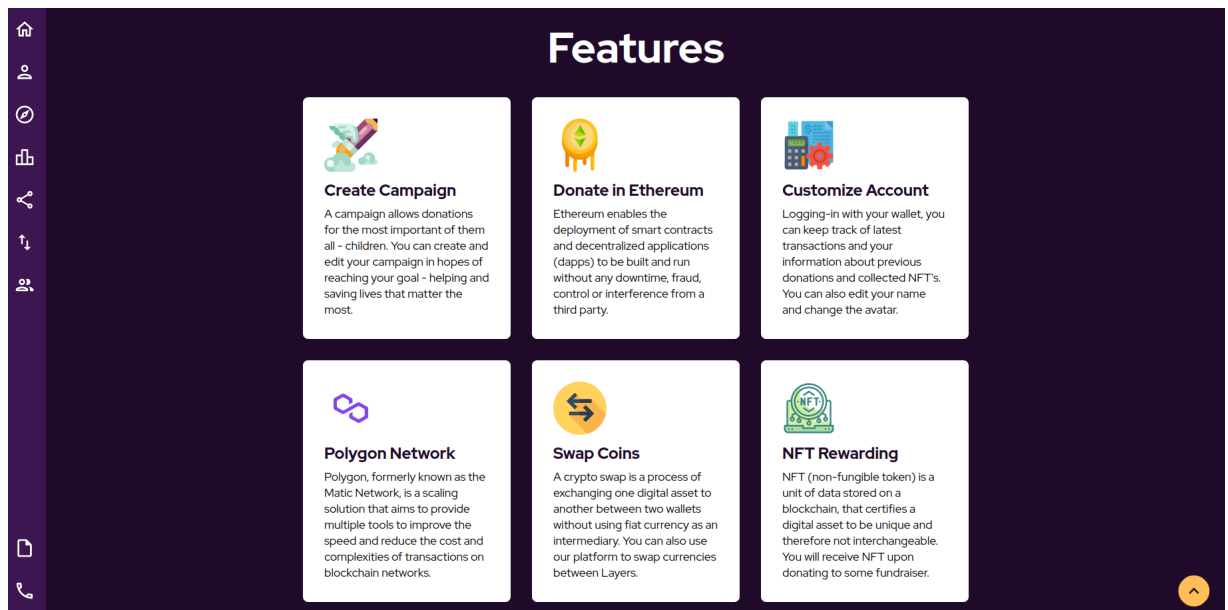


Figure 5. Home page - 4th part



Figure 6. Home page - 5th part

3 Explore

Explore serves as a display of all campaigns available in database. Users can donate to all available campaigns with filter and search options.

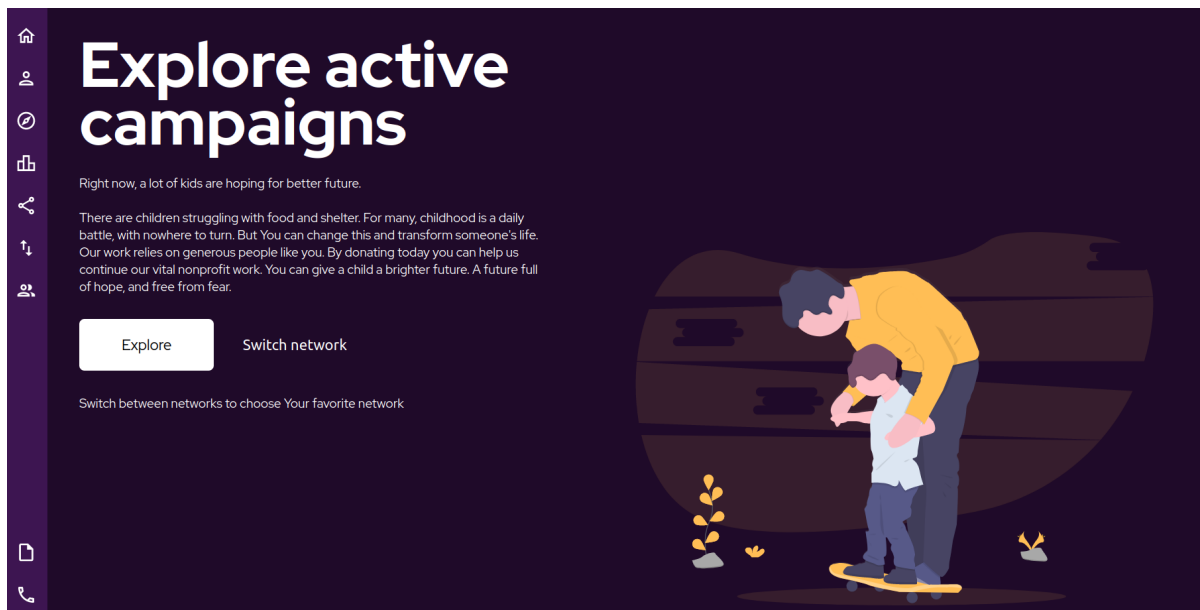


Figure 7. Explore page - 1st part

3.1 Donate

When clicking at a campaign card, modal shows up, which gives user chance to donate, entering donation price and wanted currency. Users can donate up to a goal price.

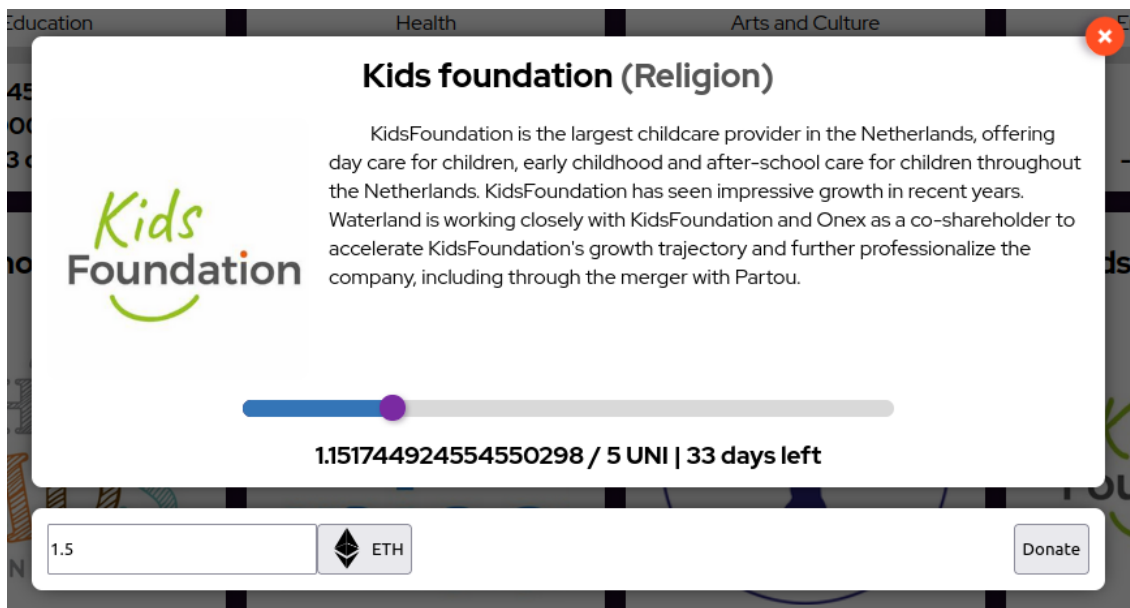


Figure 8. Donating modal

When donating, Metmask should be installed, asking user to confirm transaction after which user receives mail (if inputted).

4 Account

In this part of the website, user after logging can see his latest donations on this website and NFT rewarded after donating to some campaign.

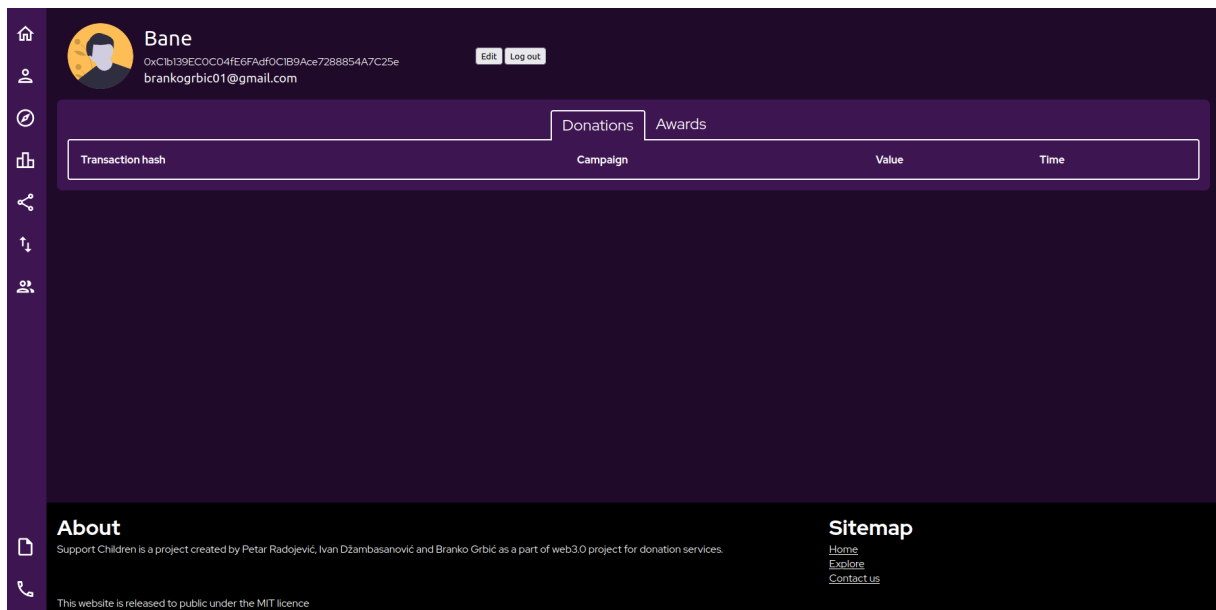


Figure 9. Account Page

5 Switching Network

Switching networks can help you transfer to Layer 2 solutions using Polygon.

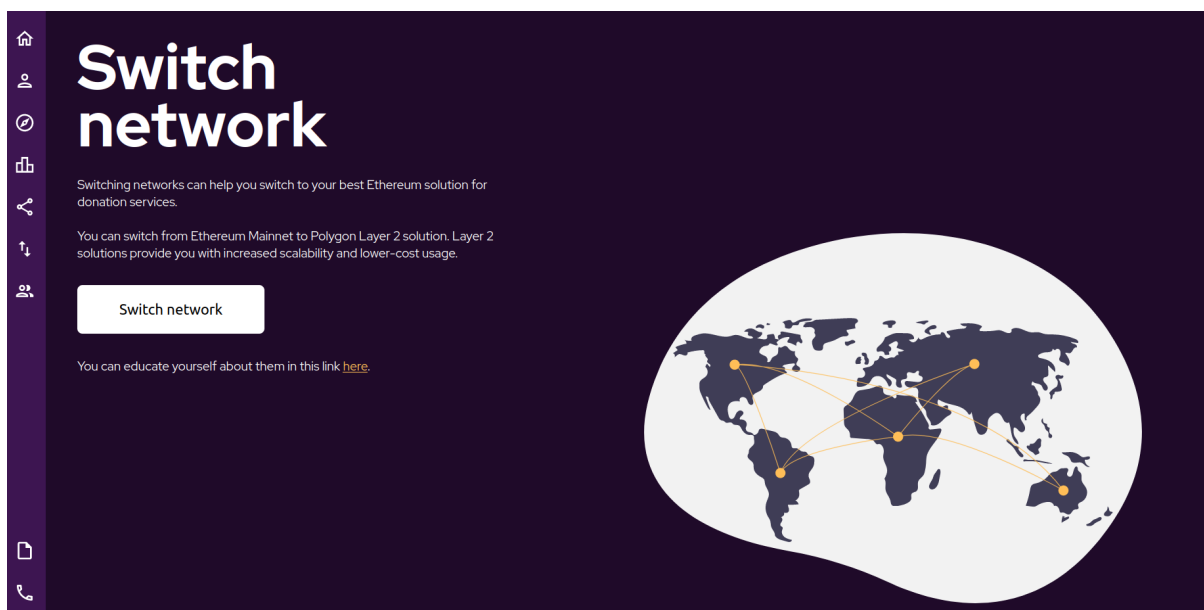
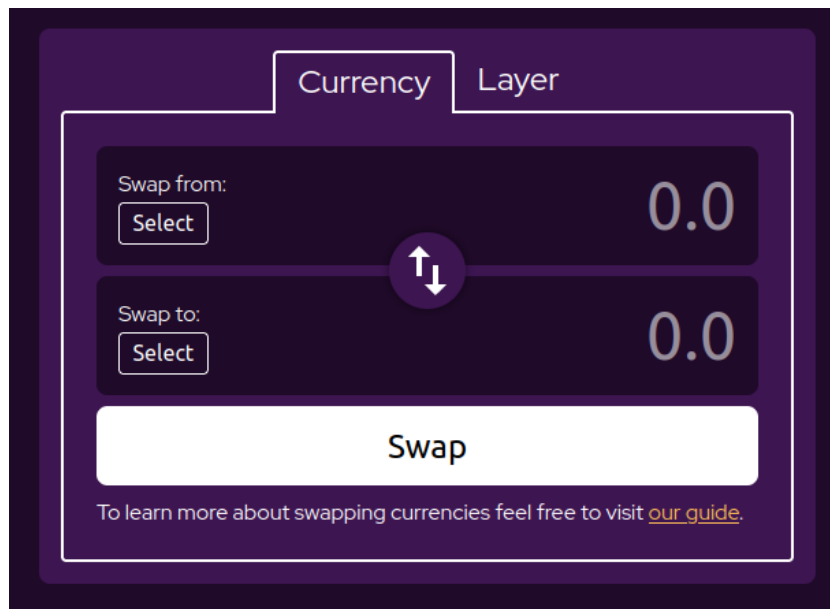


Figure 10. Switch Network

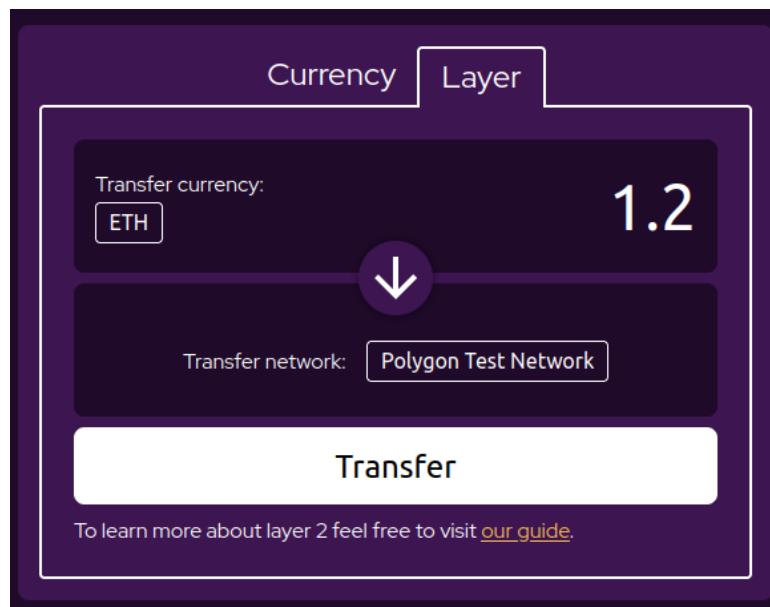
6 Swap

With swapping, you can exchange crypto in your MetaMask Wallet, transferring your money to different network or currencies. You can to this function between same network or between layers (if working on Layer 2 solution).



The interface features a dark purple background with a white border. At the top, there are two tabs: "Currency" (active) and "Layer". Below the tabs, there are two input fields: "Swap from:" with a "Select" button and a value of "0.0", and "Swap to:" with a "Select" button and a value of "0.0". A double-headed vertical arrow icon is positioned between the two input fields. Below these fields is a large white button labeled "Swap". At the bottom, there is a link: "To learn more about swapping currencies feel free to visit [our guide](#)."

Figure 11. Swap Coins



The interface features a dark purple background with a white border. At the top, there are two tabs: "Currency" (active) and "Layer". Below the tabs, there is a "Transfer currency:" field with a dropdown menu showing "ETH" and a value of "1.2". Below this is a "Transfer network:" field with a dropdown menu showing "Polygon Test Network". A downward arrow icon is positioned between the "Transfer currency:" and "Transfer network:" fields. Below these fields is a large white button labeled "Transfer". At the bottom, there is a link: "To learn more about layer 2 feel free to visit [our guide](#)."

Figure 12. Swap Bridge

7 Create Campaign

You can request to be a part of our charity community and create your own campaigns.

Figure 13. Create Campaign

8 Guide

Guide is a help-section of our dApp created to help users navigate through our website. There is a table of contents where clicking to, will direct you to a section explaining what you wanted more info about.

Figure 14. Guide page

9 Contact

Contact is the final part of the website available to user, displaying form which sends admins email after submission. They can select categories, which can help admins identify type of questions user asked.

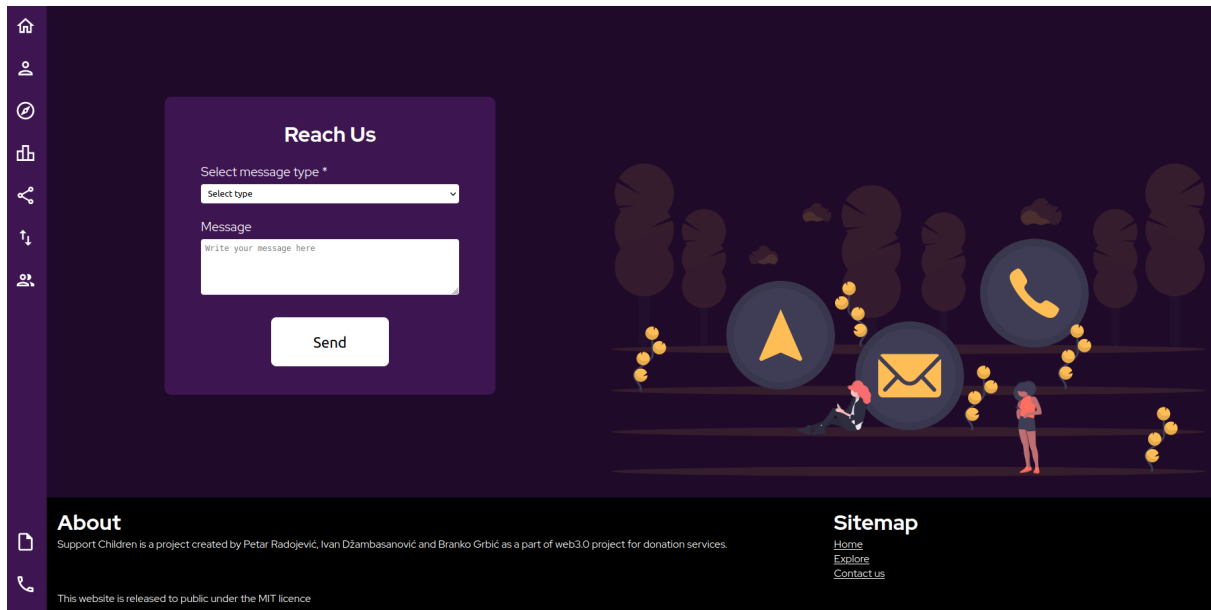


Figure 15. Contact page

10 Conclusion

There is still room for improvement, but product itself is functional and working. We hope you like it.

Ez, We C00l