Documentation

cyphertrip

August 2020

Presented by

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Introduction & Background

A blockchain-based User incentive scheme to promote public modes of transport

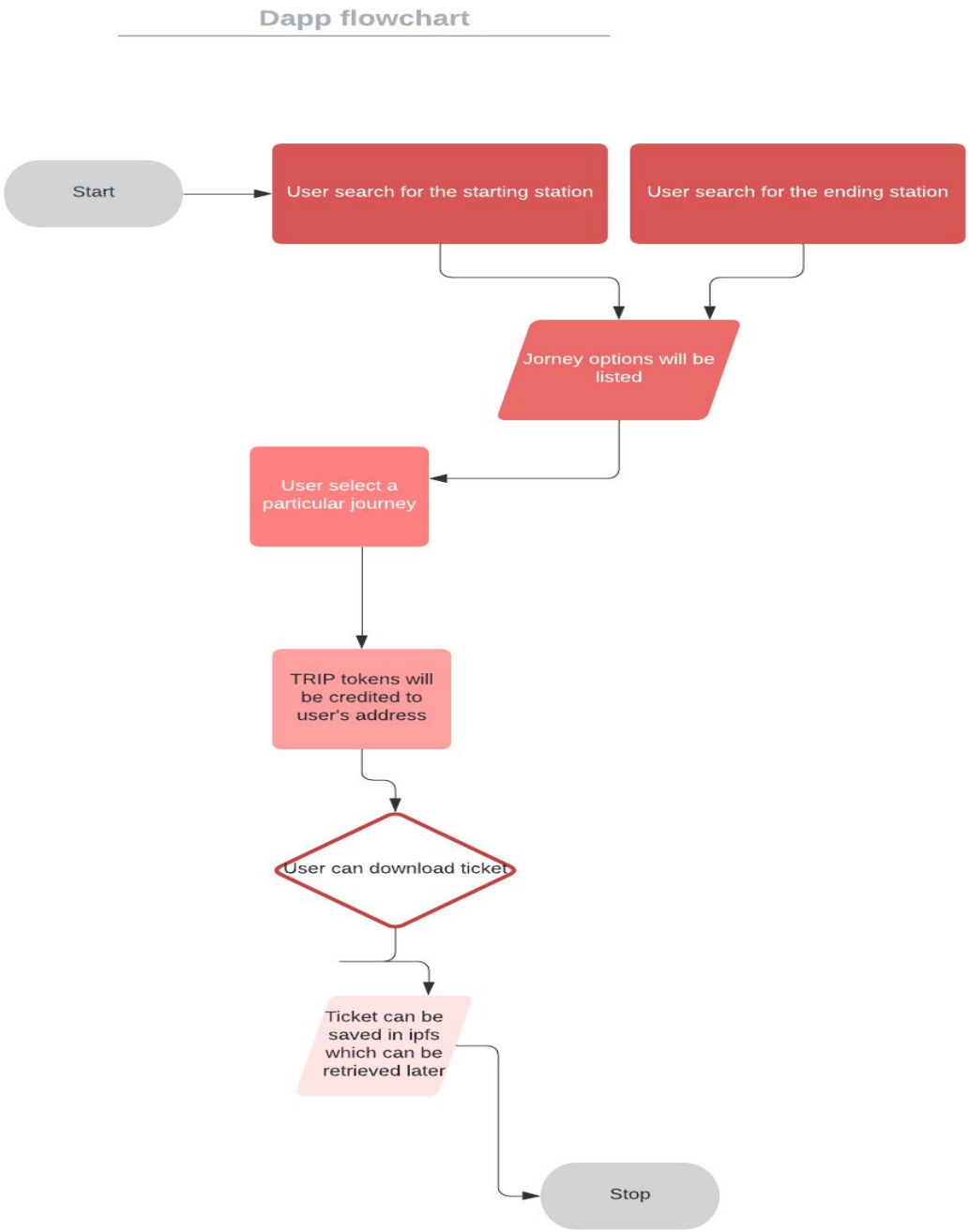
cyphertrip aims at promoting public means of transport in order to reduce carbon emission. It is trying to incentivise those who are using public means . It does that by issuing a new token called TripToken, "TRIP" and awarding those to commuters based on their savings on carbon emission.

Project Description

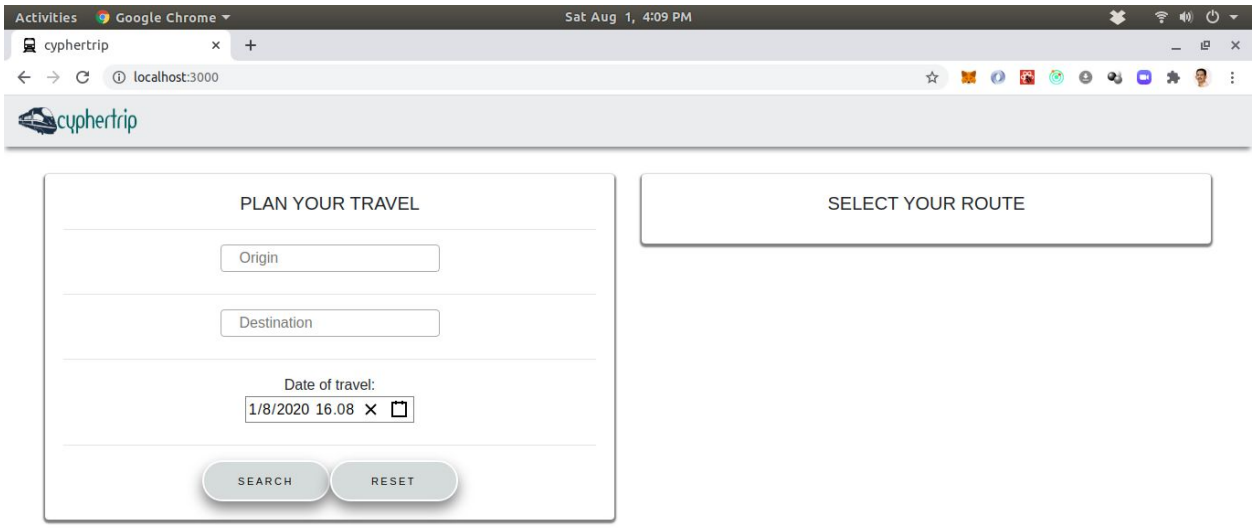
The project is composed of the followings:

1. Smart contract (solidity)
2. Dapp (React App)
3. Documentation

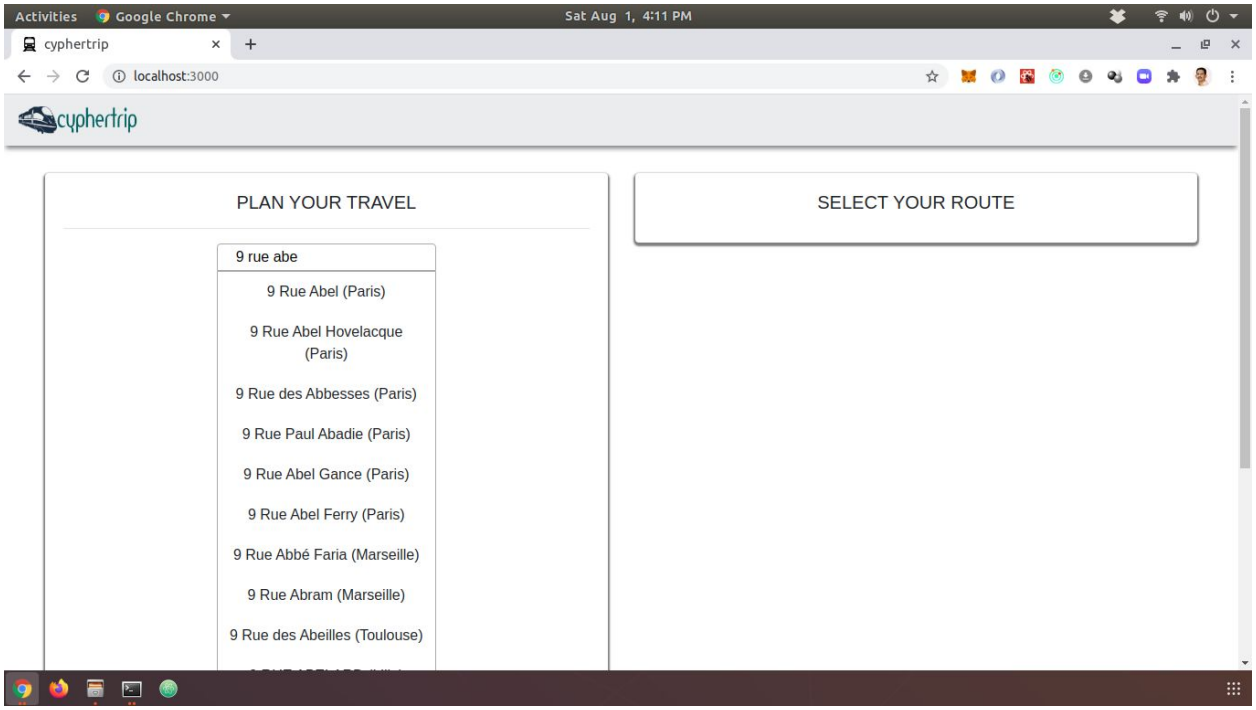
Dapp workflow



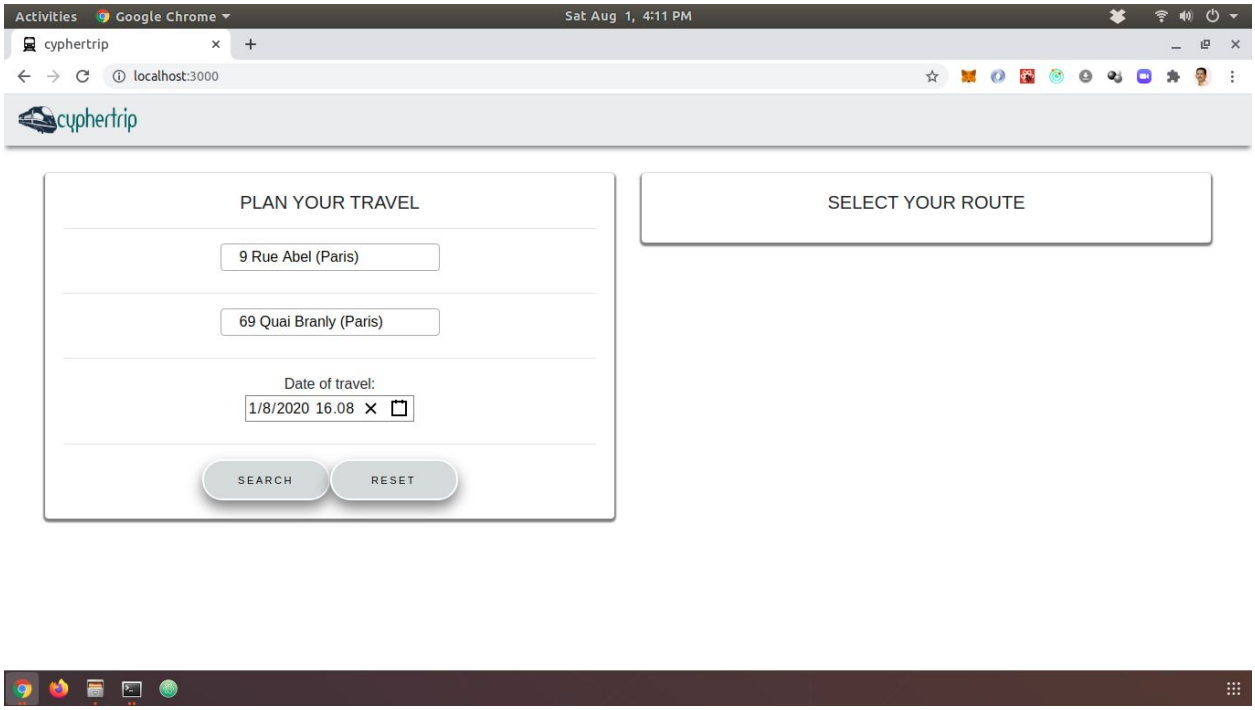
1. Home screen



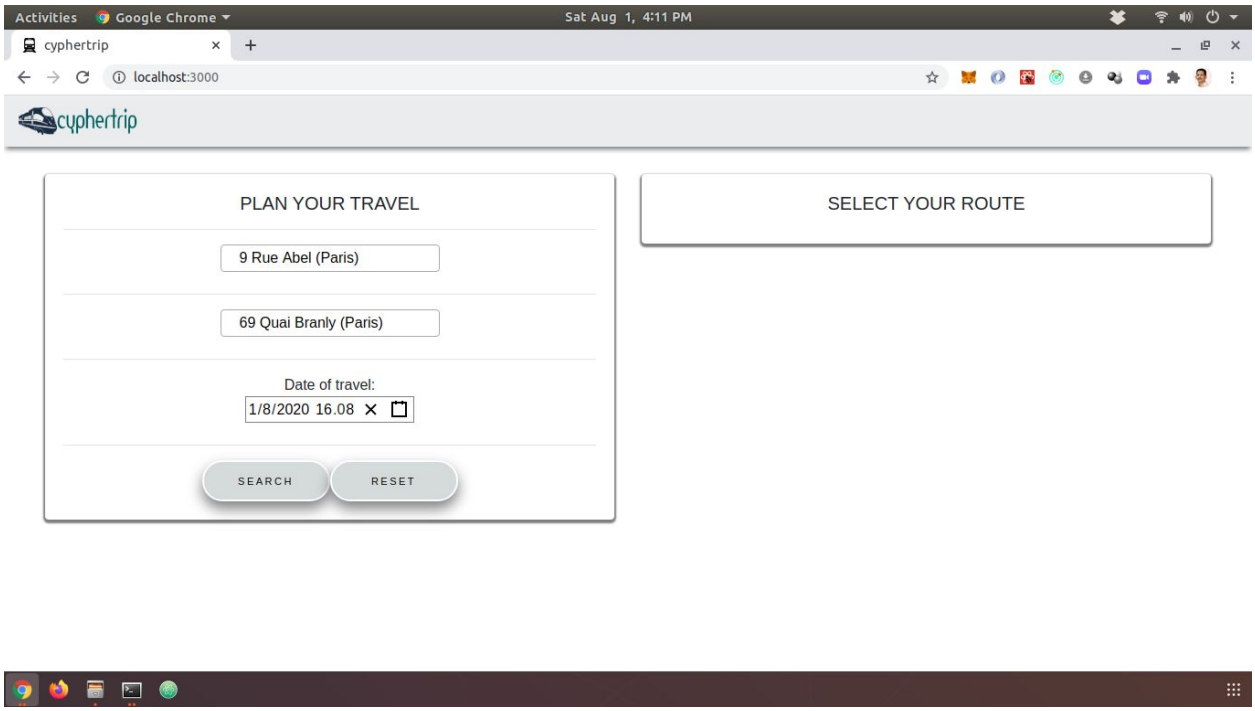
2. User select ‘From’ station



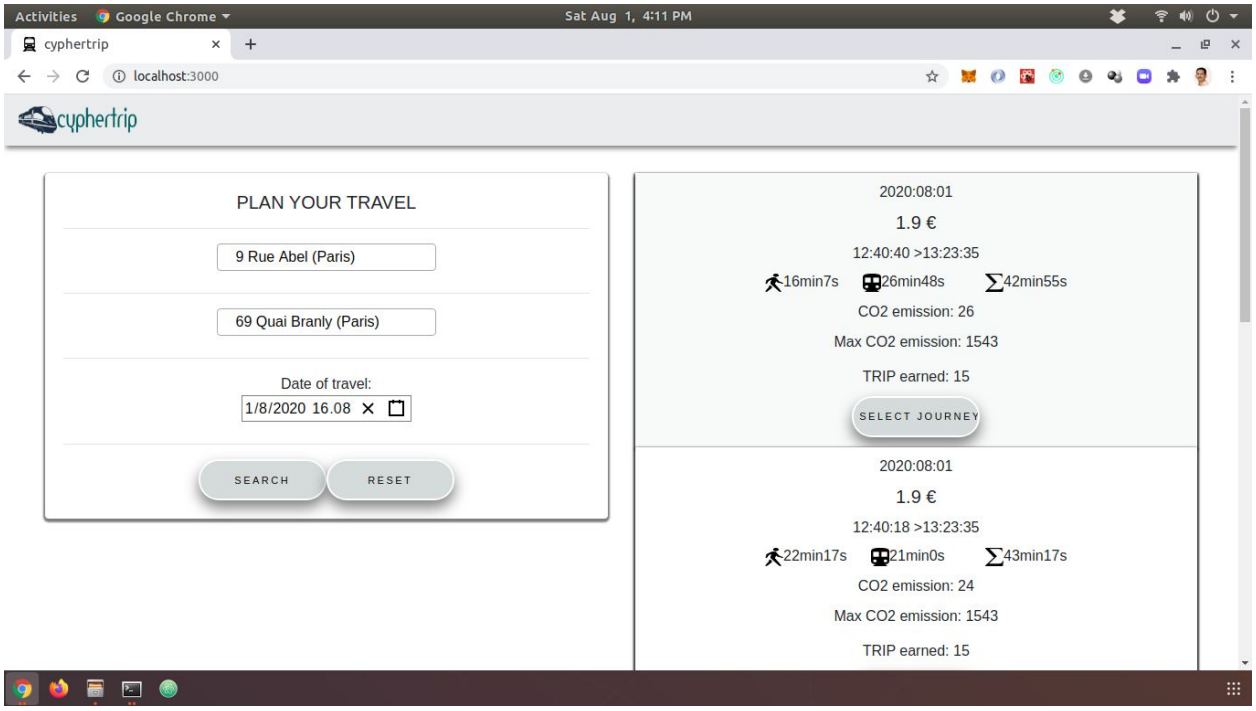
3. User select ‘To’ station



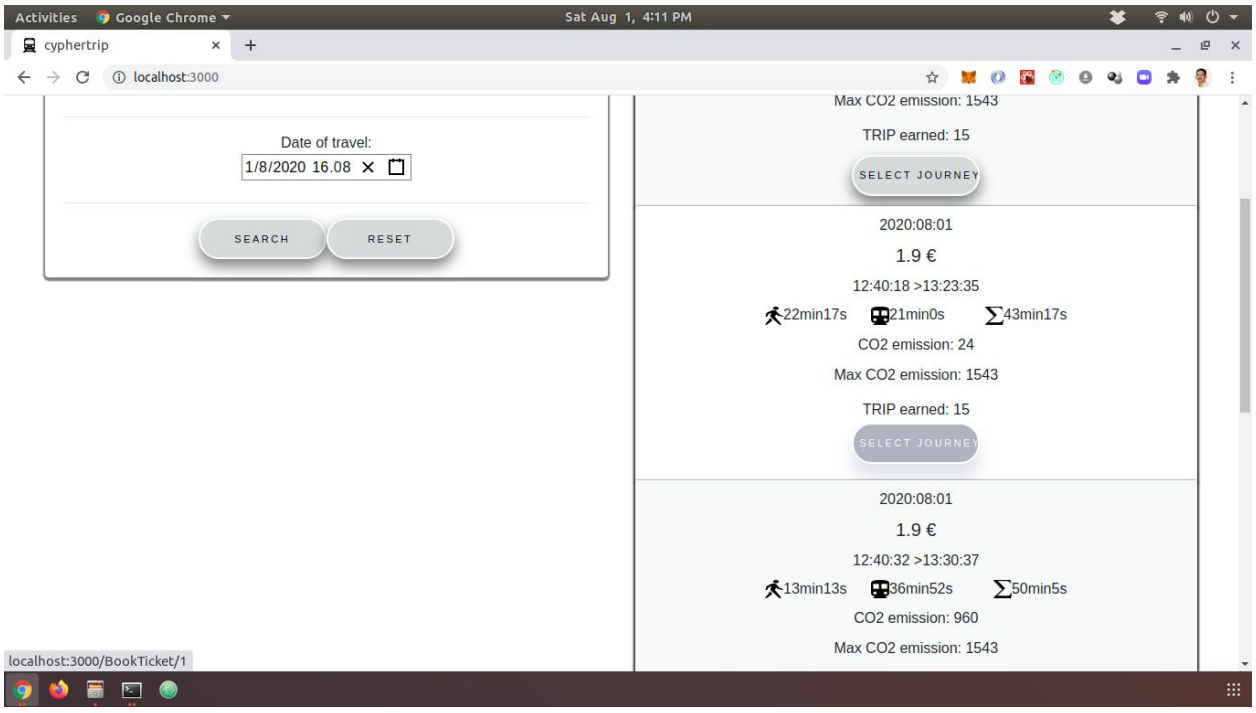
4. Both stations selected



5. Search for the available journeys

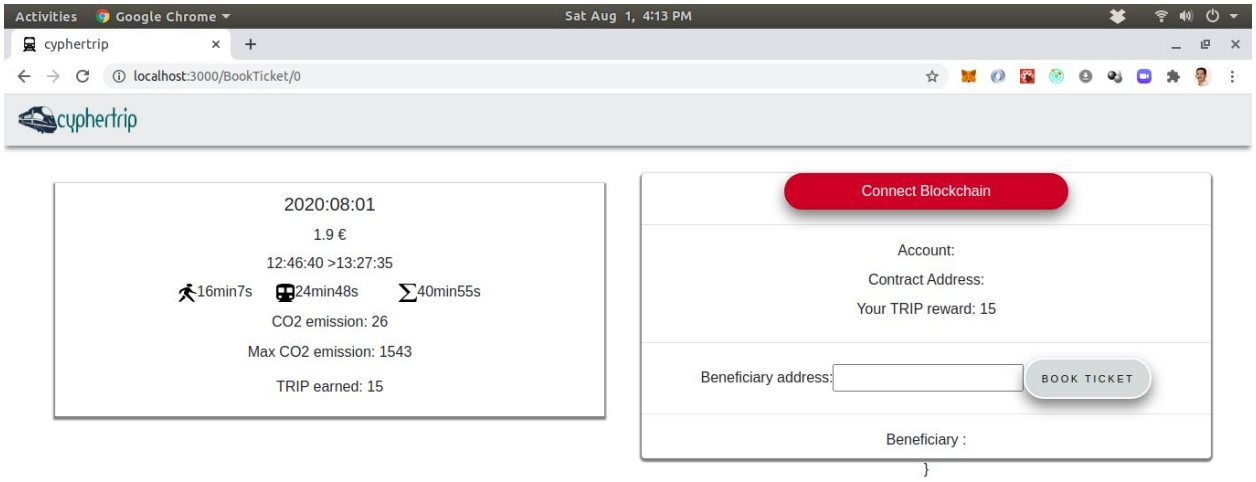


6. Select a particular journey

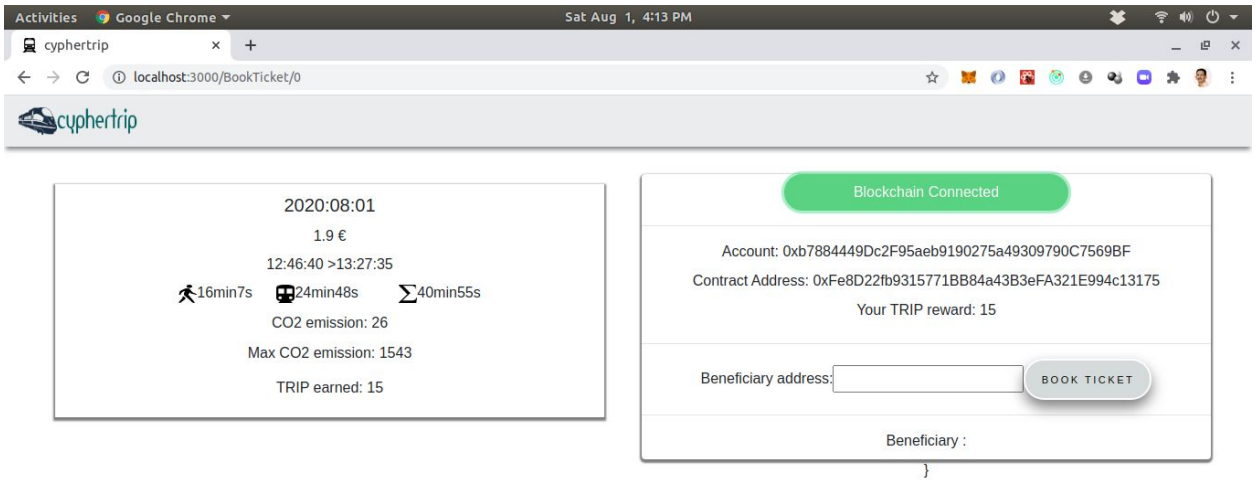


NB: Since a not found error is yet to be implemented please select '9 rue abel' for the from station and '69 quai branly for the to station. The app make use of Navitia api for route detection. So only those stations listed there will be available.

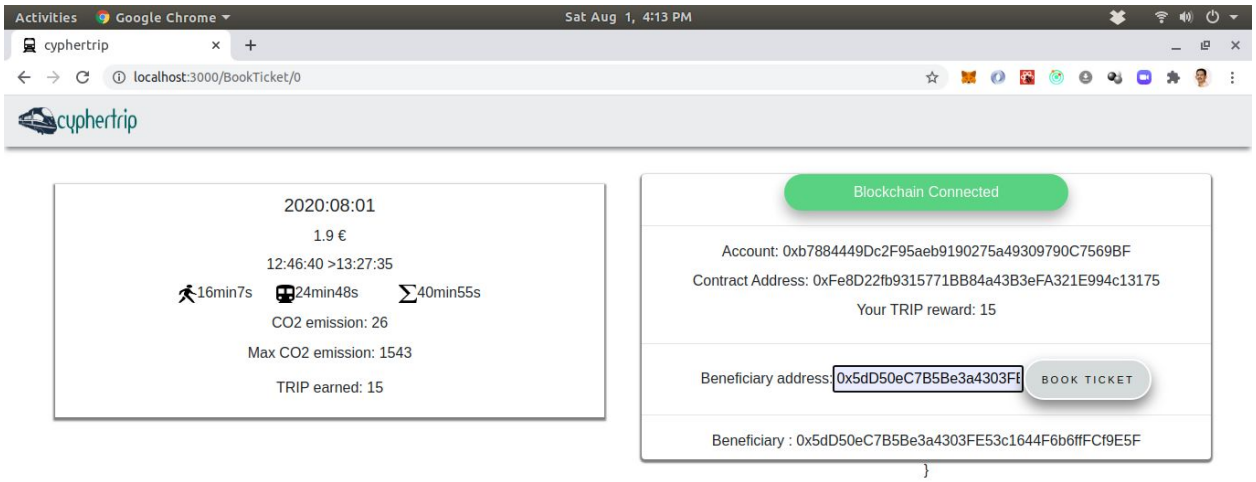
7. Connecting blockchain



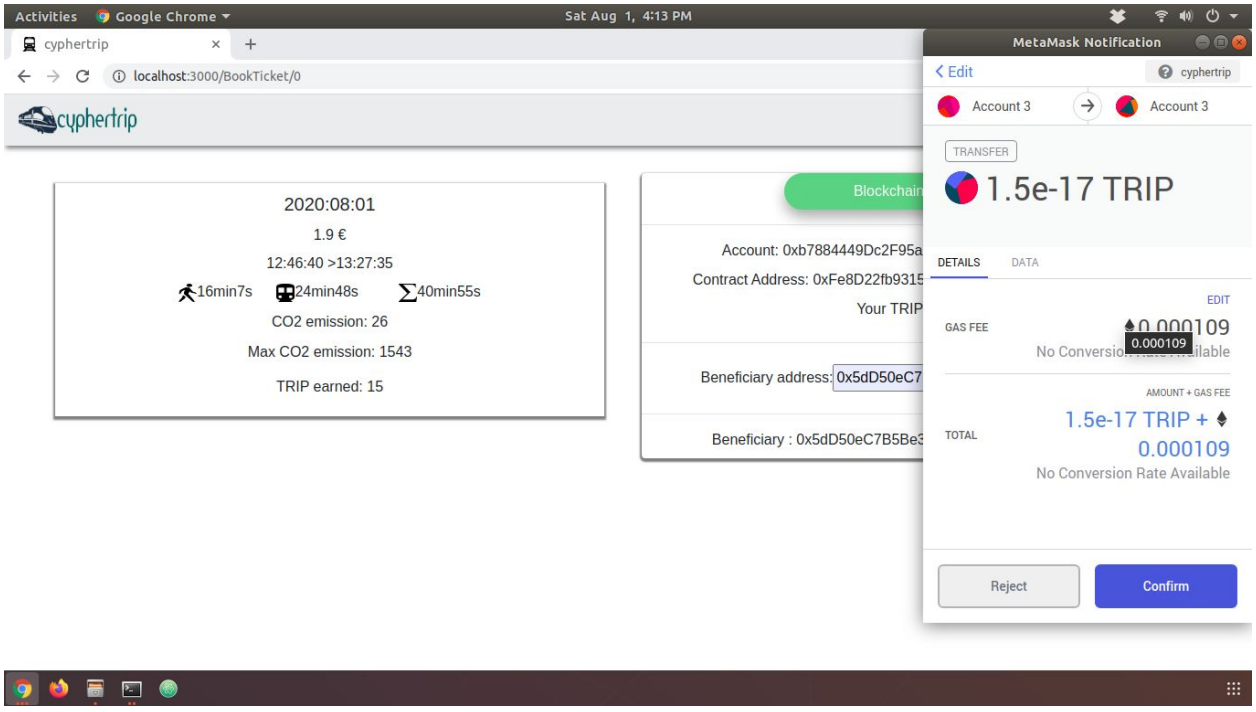
8. Connected blockchain



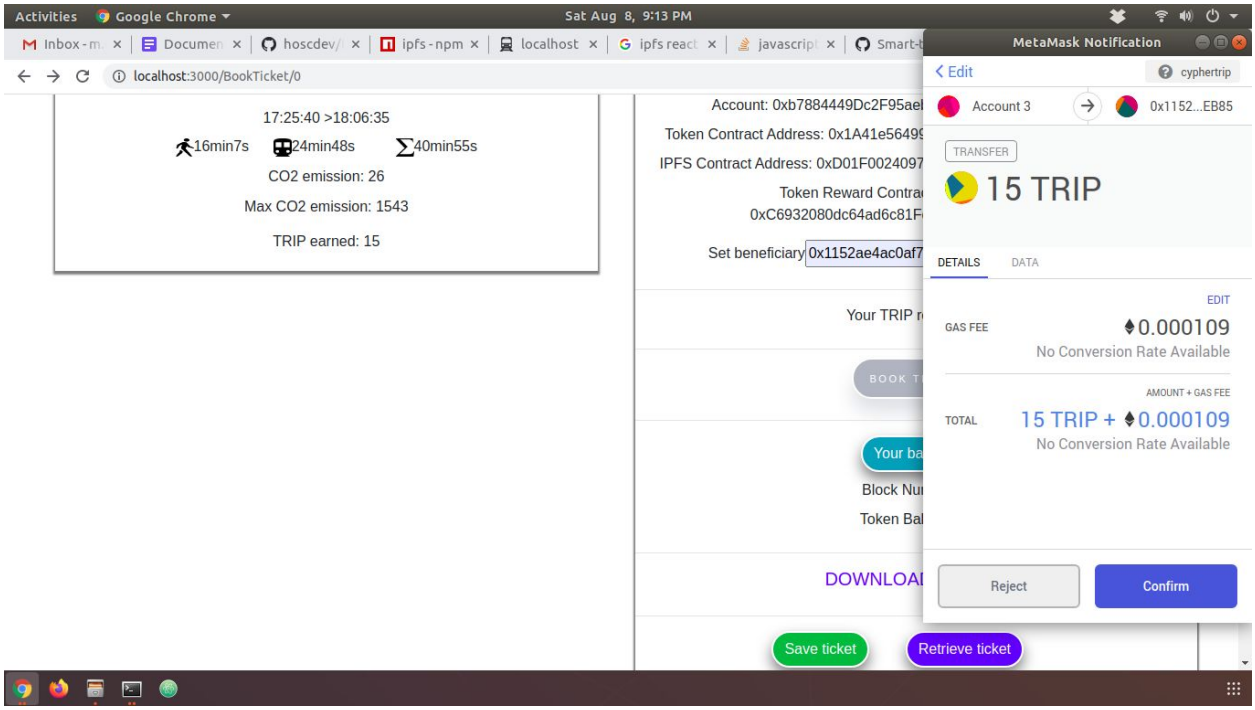
9. Set the beneficiary beneficiary (please select an address other than the token owner for the beneficiary)



10. Set beneficiary will invoke the TokenReward smart contract

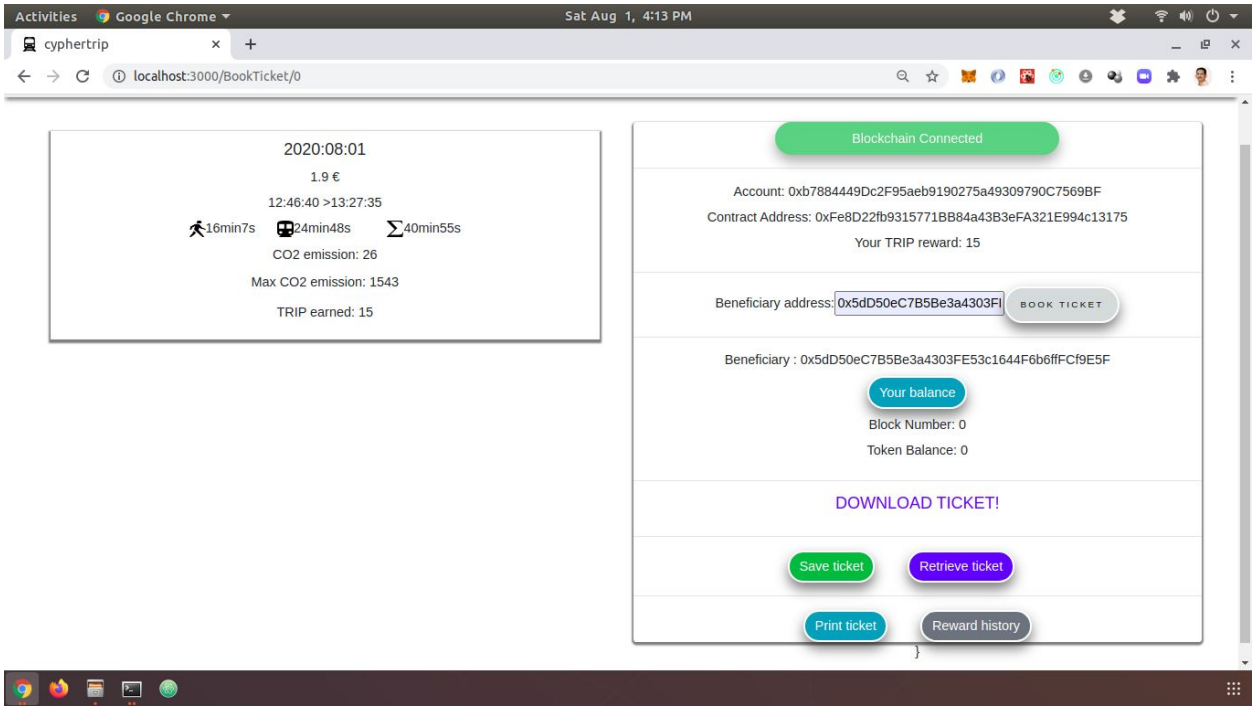


11. Book Ticket will invoke TripToken smart contract

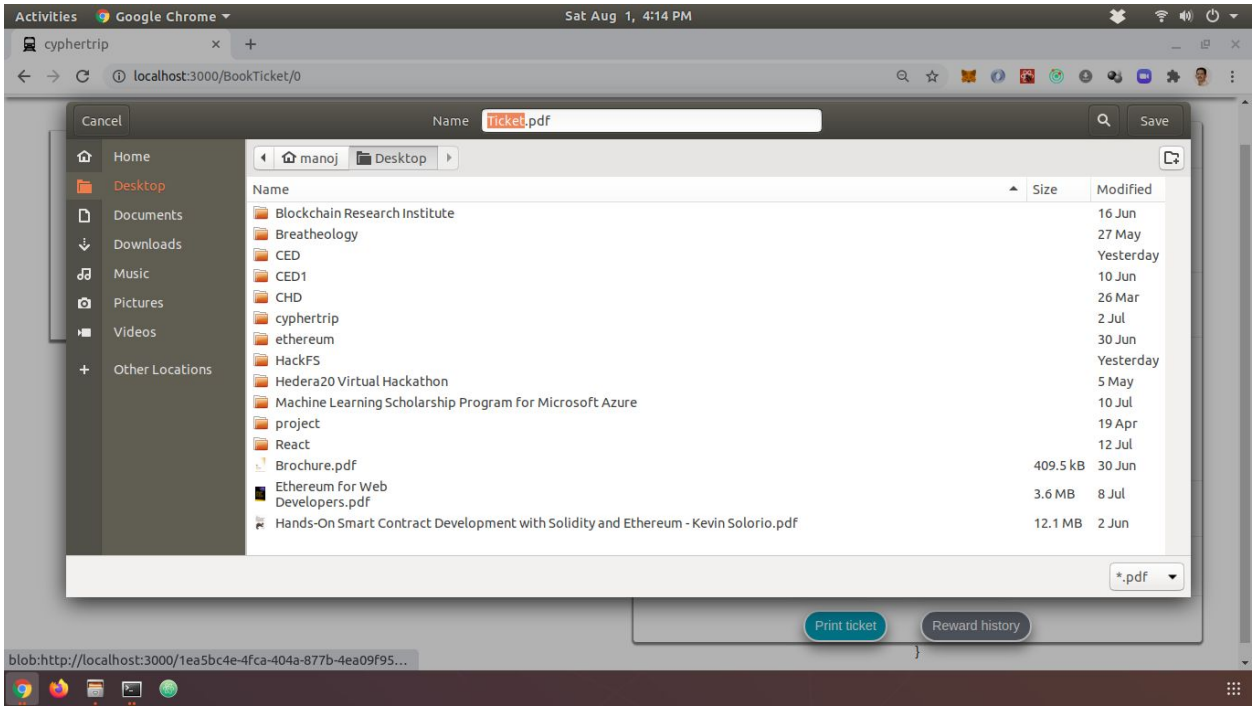


12.

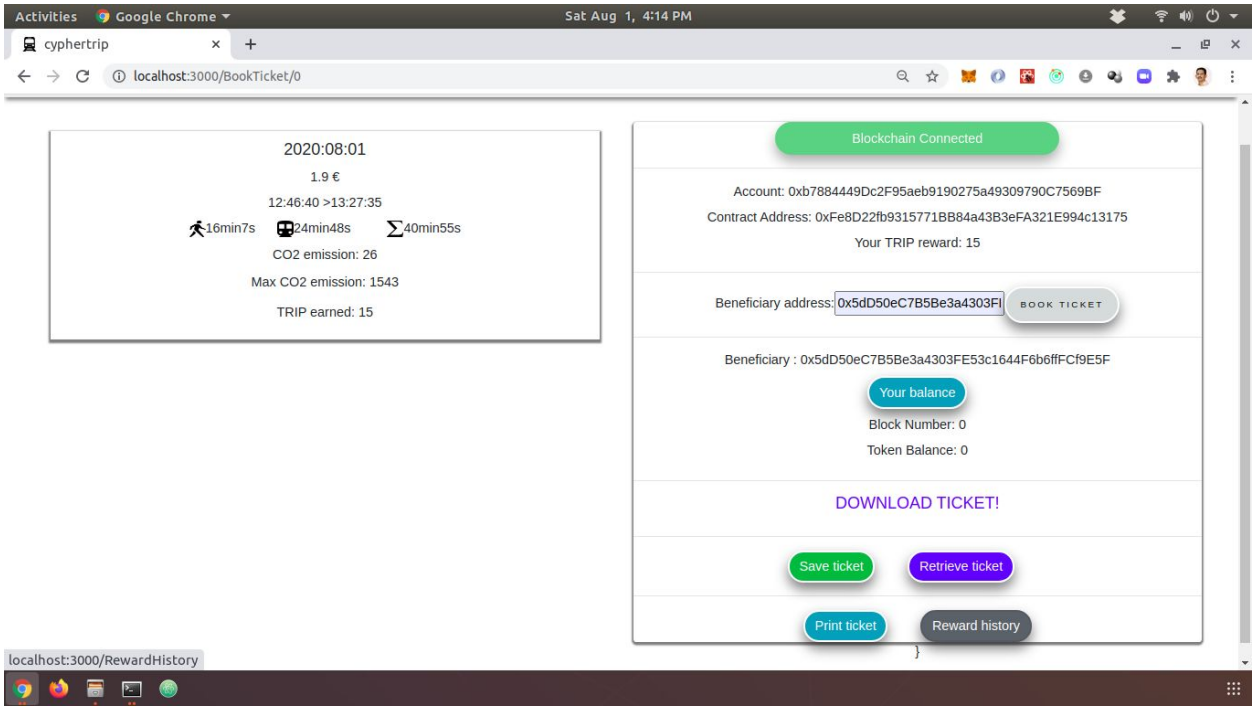
13. Download the ticket



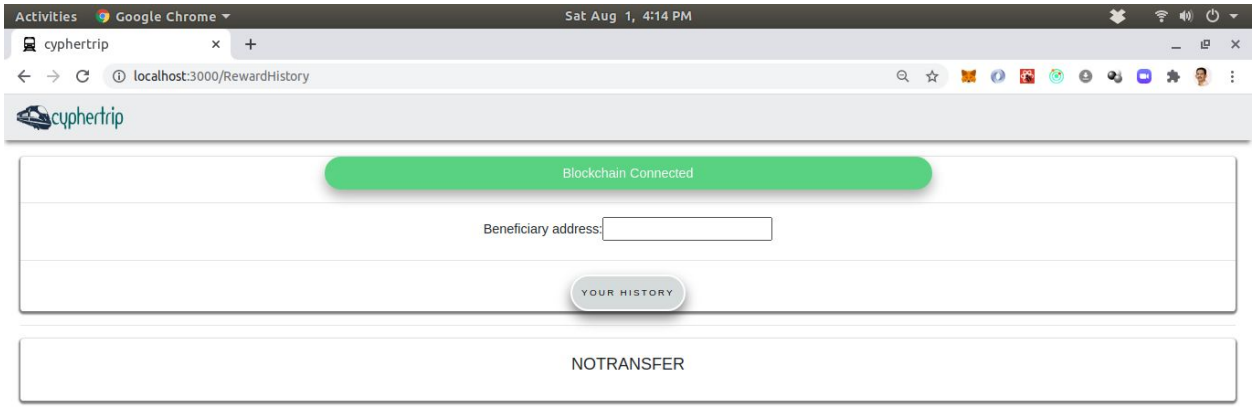
14. Save ticket to ipfs (some errors - not implemented)



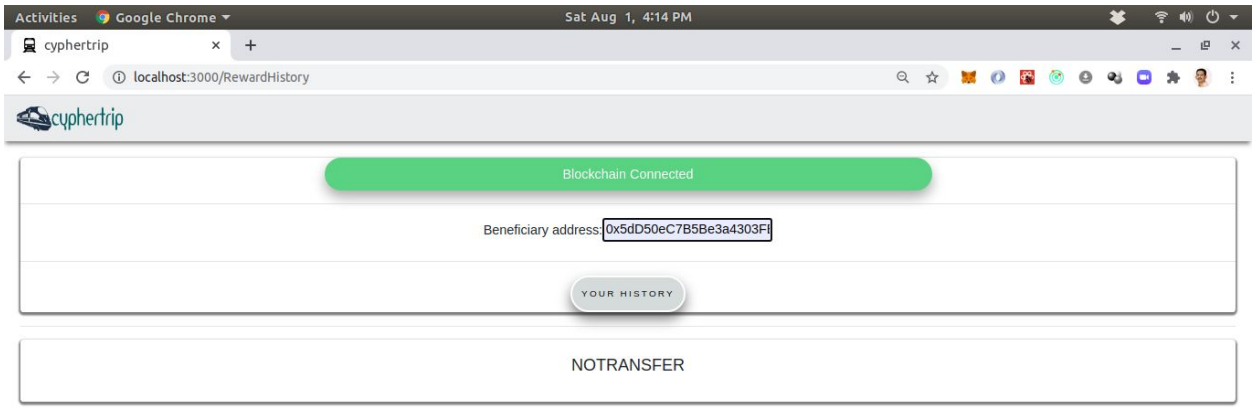
15. View Reward hostory

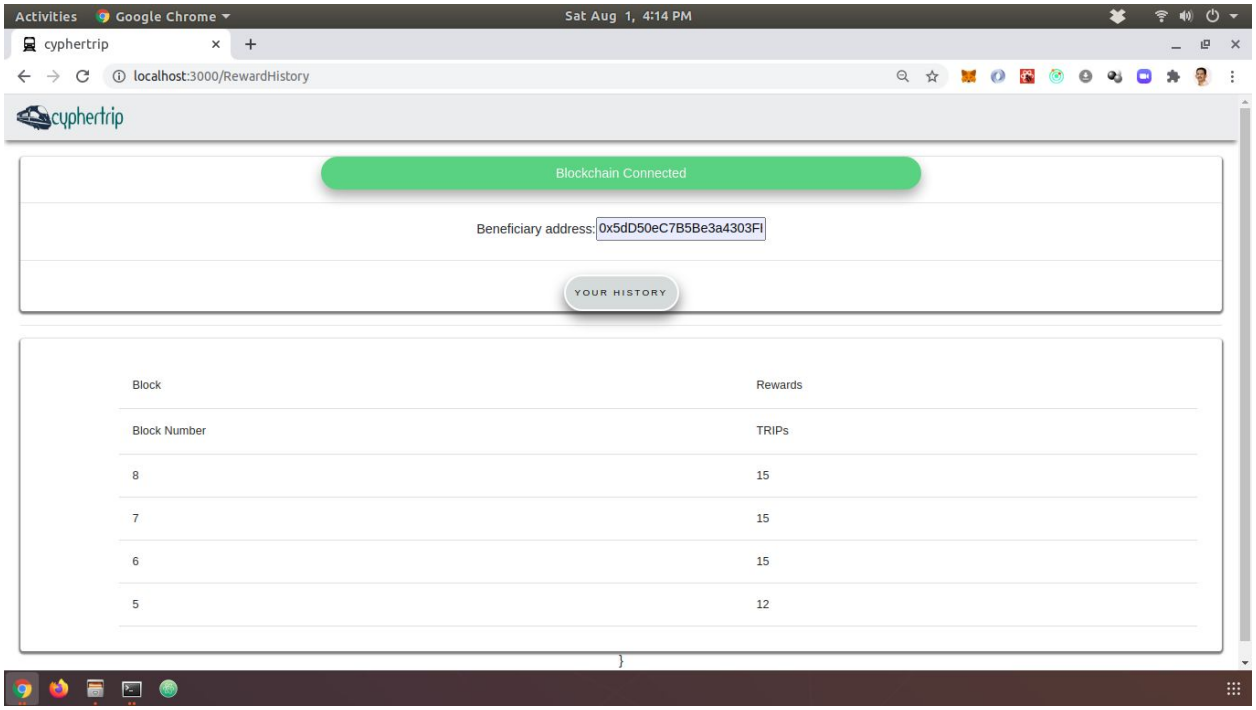


16. Select the account to view ticket



17. Click on view token reward history





Smart contract

2 smart contracts were used

TripToken	Erc 20 token. Inherits all methods such as transfer, balanceOf from the parent erc20.sol.
TokenReward	For fixing the beneficiary