

HACKUTA 2019
PROJECT REPORT
Wallet Application Using Libnspv

IDEA:

A wallet application using libnspv to send and receive money and keep track of the transactions with public key,private wif key (address).The application was planned to be integrated with an ngo recommendation system using cosine similarity and collaborative filtering to give out the top NGOs being funded by the users according to ratings and the deficit funded NGOs to help them receive funds from the users KOMODO blockchain wallet.

BENEFIT OF THE IDEA:

Inclusion of diversity and a social cause being approached with the most secure system - Blockchain with transparency for the system.

This project has 2 two parts:

Installation and integration of the Komodo platform, Libnspv,Single node

A recommender system for NGOS as one of the nodes for receiving funds from the users who have given them good and the lowest ratings.

DIVERSITY IN TOOLS & TECHNOLOGIES:

Operating Systems :Ubuntu, Windows,MAC

Languages: Libnspv,JSON,Python,PHP

Tools : Jupyter Notebook,Terminal,Komodo platform ,Agama Wallet(explored)

DIVERSITY IN IDEA:

- Implementing a bitcoin wallet using a C library on command line from scratch.
- Blockchain Donation wallet for NGOs from diverse countries rated by the users of the application.

DIVERSE KEY LEARNINGS:

- Implementation of the KOMODO Smart Chain for wallet application using libNSPV platform.
- Designing a recommender system for the users who wish to make payments to the NGOs using the wallet application.
- Working of the Blockchain technology with a new library and APIS.

DIVERSE CHALLENGES:

- Lack of proper documentation for the setup of the platforms. The team reached out to the admin on Discord App and Slack for Komodo to get a better understanding of the problem.
- Server stops working, if multiple nodes are active.
- Integrating the entire process and establishing connections with the Komodo platform with huge files to be downloaded was cumbersome.

DIVERSE FUTURE SCOPE:

- Integration of the NGO recommendation system with the wallet.
- Integration of Voice flow with the wallet application for a translator (diversity in languages).
- Google marker cluster API implementation in the wallet application for clustering NGO locations with best funds and the deficit funds.
- A better front end interface, which could not be completed because of lack of time.

DIVERSITY IN ATTACHED FILES:

- Log files
- NGO Dataset
- .ipynb file with the imported libraries

DIVERSE FINDINGS/ERRORS:

- Backtracking of the commands run on the cmd is not known.
- No proper output for some commands .
- Errors in the text in the documentation, which cause problem/hindrance in the execution of the commands and the flow of Smart Chain.