Integration of Hyperledger Iroha into Hyperledger Explorer tool

Title	Integration of Hyperledger Iroha into Hyperledger Explorer tool
Status	PROJECT COMPLETED
Difficulty	LOW

Description

Hyperledger Iroha is currently not supported in several Hyperledger tools including the Hyperledger Explorer. The aim of the project is to implement the required parts to support the use Hyperledger Explorer in conjunction with the Hyperledger Iroha, so the end users can view blocks and the information about the blockchain network. For more advanced developers, the task could be extended to review, propose and implemented changes to the software architecture of the Hyperledger Explorer and define the requirements for other Hyperledger tools to become platform agnostic. The main aim would be to support all Hyperledger platforms with simple plug-ins that would provide the information to the tools and vice versa that the tool will provide the information to the platform using a well defined and standardised API that every platform should perform to be compatible with the Hyperledger tool.

Additional Information

https://www.hyperledger.org/projects/explorer - overview of Explorer

https://www.hyperledger.org/projects/iroha - overview of Iroha

 https://github.com/hyperledger/iroha - Iroha repository

https://iroha.readthedocs.io/en/master/ - Iroha Documentation

Learning Objectives

The intern will become familiar with Hyperledger Iroha and Hyperledger Explorer, understand the internal structure of the blocks and how to present them to the end user. At the more advanced level, the project requires good understanding of the software architecture quality attributes and software design patterns that will be used evaluate the existing architecture and propose changes that will allow better flexibility of the tool and well defined APIs for exchanging required data.

Expected Outcome

Hyperledger Explorer supports Hyperledger Iroha.

Architectural document with analysis and suggestions for improvements (if needed) for cross-platform support.

Relation to Hyperledger

Hyperledger Explorer

Hyperledger Iroha

Education Level

For the implementation of the support for Iroha in the Hyperledger Explorer any level is applicable. For the advanced version of the tasks, master program students with good understanding of software architecture and design patterns are preferred.

Skills

Knowledge of C++, JavaScript, JSON.

Future plans

Supporting new versions of Iroha, support for other platforms, contributing to Iroha, Explorer or both.

Preferred Hours and Length of Internship

Both, part-time and full-time are equally acceptable.

Mentor(s) Names and Contact Info

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Mentee Name

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Project Plan

Project Plan

Summary Report

Summary Report -...xplorer tool.pdf