

Integration of Hyperledger Iroha into Hyperledger Explorer tool

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› Introduction

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- › **Location:** Innopolis, Russia
- › **University:** Innopolis University, Russia
- › **Mentor(s):** Ales Zivkovic
- › **Hyperledger project:** Hyperledger Explorer, Hyperledger Iroha



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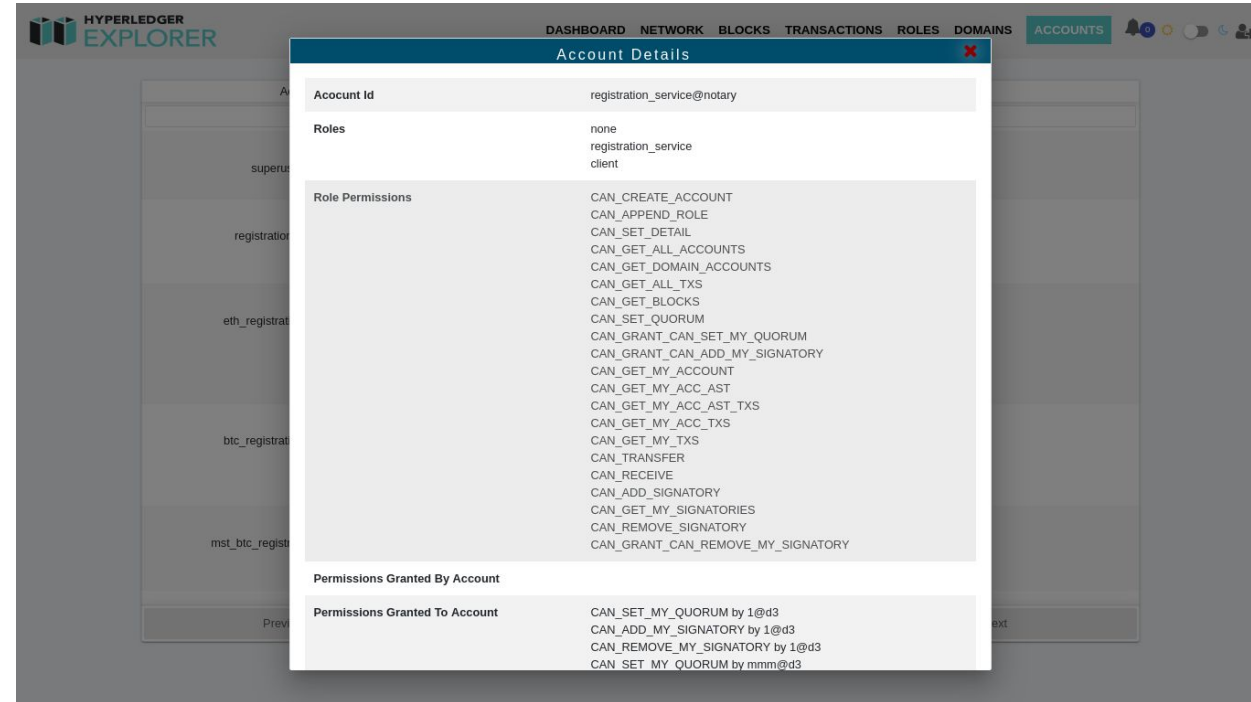
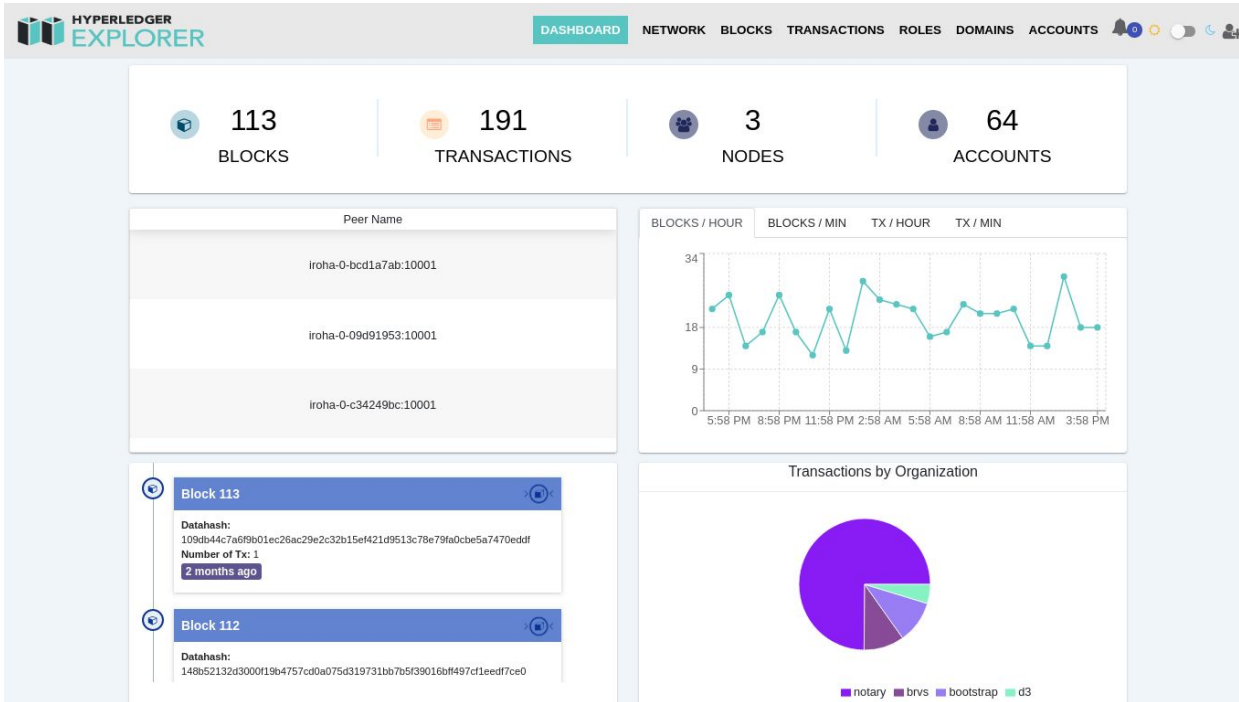
› **Project Description:**

- › Add support for collecting and viewing Hyperledger Iroha peers, blocks, transactions, roles, domains, and accounts to Hyperledger Explorer.
- › Used technologies include NodeJS, TypeScript, GraphQL, ReactJS.



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Project Screenshots:



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› **Project Objectives:**

- › Obj 1: Develop data collection and storage service.
- › Obj 2: Design data service GraphQL API.
- › Obj 3: Connect Hyperledger Explorer frontend to data service.



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› Project Deliverables:

- › Deliverable 1: Data service is implemented and tested.
- › Deliverable 2: Data service GraphQL API is implemented, tested, and documented.
- › Deliverable 3: Hyperledger Explorer frontend is using GraphQL API of data service.



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› **Project Execution & Accomplishments:**

- › We implemented and tested an integration of Hyperledger Iroha into Hyperledger Explorer. We could see Iroha peers, blocks, transactions, roles, domains, and accounts in web interface.
- › Sometimes it was difficult to understand what Hyperledger Explorer code does because it was written by different people with different experience and programming styles.
- › Also, we found and fixed some ambiguous statements in Hyperledger Iroha documentation.

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› **Recommendations for future work:**

- › Based on our experience, code of Hyperledger Explorer has low maintainability and needs refactoring.
- › There is inconsistency in UI design. A style guideline should be chosen and followed.

