Hyperledger Sawtooth Explorer with ScanTrust
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Introduction

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- **Mentor(s):** Andrew Backer, Ricardo Garcia
- **Hyperledger project:** Sawtooth
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Project Description: An easy to install and use web app for navigating and understanding data stored in a sawtooth instance. It does not require customization, only access to the sawtooth REST API and its validator. No need for any special environment except Docker.
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- **Project Deliverables:**
  - Backend: sawtooth events listener & API for a frontend (Express.js + MongoDB)
  - Frontend: exploring interface itself with some admin features (Vue.js + Vuetify)
  - Packaging: easy deployment (Docker)
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**Project Objectives**

**Necessary minimum:**
- Synchronizing MongoDB with Sawtooth node data (zmq events)
- Building history for every state address (events catch-up)
- Showing this data in Vue.js app
- Searching (filtering) data by txns/blocks/signers data

**Stretch-objectives:**
- Real-time notifications of transactions
- Authorization (+ admins)
- User accounts management
- Understanding txns & state binary data (upload proto-files & configure)
- Custom entities (menu item + page) based on decoded binary data
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Recommendations for future work:

- Consider possibility of fork on the listener
- Do not rebuild everything every time in /api and /web Dockerfiles
- Ability not to pass sawtooth addresses and ports on launch and to setup everything before letting to interact with the app
- Display existing filters in filters dialog
- Refactor proto rules section not to require [Save] button press, but to save on each created/edited/removed rule instead
- Browsing nodes (adding friendly names, tied to authorized_keys)
- Make the first registered account an admin. Currently setting «role» field to «1» in Mongo is required to make first admin.