Data Generator for SSI interactions

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Background and Problem   Common use-cases of Self-Sovereign Identity (SSI) implementations involve interacting with `Schema`, `Credential Definition` and `Proof Request` data representations. Reading these is one thing, writing another. Writing a full proof request is relatively cumbersome, repetetive, and error-prone as they are often nested JSON objects or some data structure representation corallary. For general-purpose data there exist such libraries such as faker. Regularly, especially in a development context, a developer simply wants to create a mock or arbitrary proof request for testing purposes. This also implies creating mock schemas and credential definitions.

Proposed Solution   In order to address the problem at hand one can create a data-generator that:

1. Can generate proofs/proof requests filled with 'random' but valid data
2. Can generate credentials and credential requests with 'random' but valid data

This can also be extended to be a general-purpose data-generator for Hyperledger Aries that is able produce mock data for any datatype used in interactions.

Research questions

1. How can such generator best be implemented?
2. What is the scope of such a generator?
3. How would the generator deal with JSON-LD data?
    1. For instance, should there be a common resource/server to provide such mock data? See also schema.org
4. What are the limitations of such generator?
    1. For instance, providing sensible values and comparators for attributes and predicates

Relevant Sources

1. JSON-LD
2. schema.org
3. faker
4. Hyperledger Aries Present Proof v2