Showcasing an app that uses the Solid protocol for decentralized storage

By Noel De Martin

February 25th, 2020

What is Solid?

= **So**cial **Li**nked **D**ata

It's a web standard
based on the Semantic Web

What is Solid?

Solid Applications
*store data in your **POD***
(Personal Object Datastore)

This is possible because data is modeled using **RDF** (Resource Definition Framework)

What is RDF?

It's all about RDF vocabularies

Movie

Thing > CreativeWork > Movie

A movie.

[more...]

Property	Expected Type	Description
Properties from Movie		
actor	Person	An actor, e.g. in tv, radio, movie, video games etc., or in an event. Actors can be associated with individual items or with a series, episode, clip. Supersedes actors.
countryOfOrigin	Country	The country of the principal offices of the production company or individual responsible for the movie or program.
director	Person	A director of e.g. tv, radio, movie, video gaming etc. content, or of an event. Directors can be associated with individual items or with a series, episode, clip. Supersedes directors.
duration	Duration	The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format.
musicBy	MusicGroup or Person	The composer of the soundtrack.

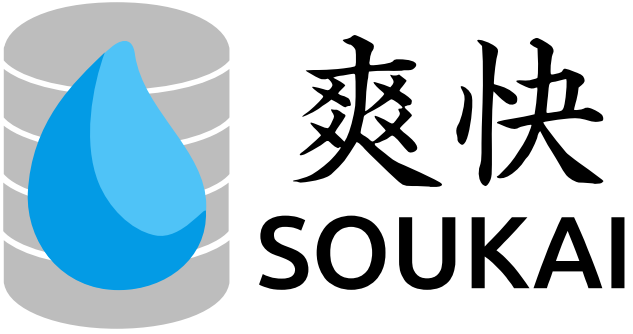
https://schema.org

https://ogp.me (open graph)

- Thing
  - Action
    - AchieveAction
      - LoseAction
      - TieAction
      - WinAction
    - AssessAction
      - ChooseAction
        - VoteAction
      - IgnoreAction
      - ReactAction
        - AgreeAction
        - DisagreeAction
        - DislikeAction
        - EndorseAction
        - LikeAction
        - WantAction
      - ReviewAction
    - ConsumeAction
      - DrinkAction
      - EatAction
      - InstallAction
      - ListenAction
      - ReadAction

Making sense of RDF in your app

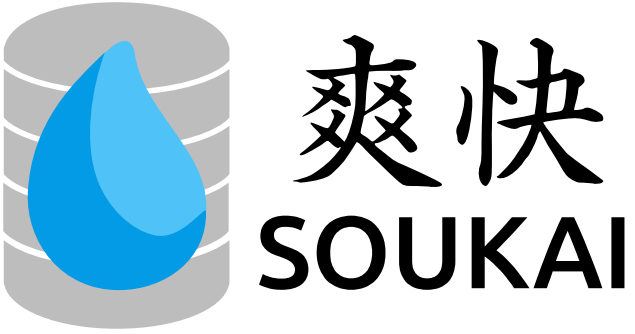
With a JS Active Record library



https://soukai.js.org

Making sense of RDF in your app

With a JS Active Record library



https://soukai.js.org

+ Solid engine: https://github.com/NoelDeMartin/soukai-solid

Solid Focus Task Manager

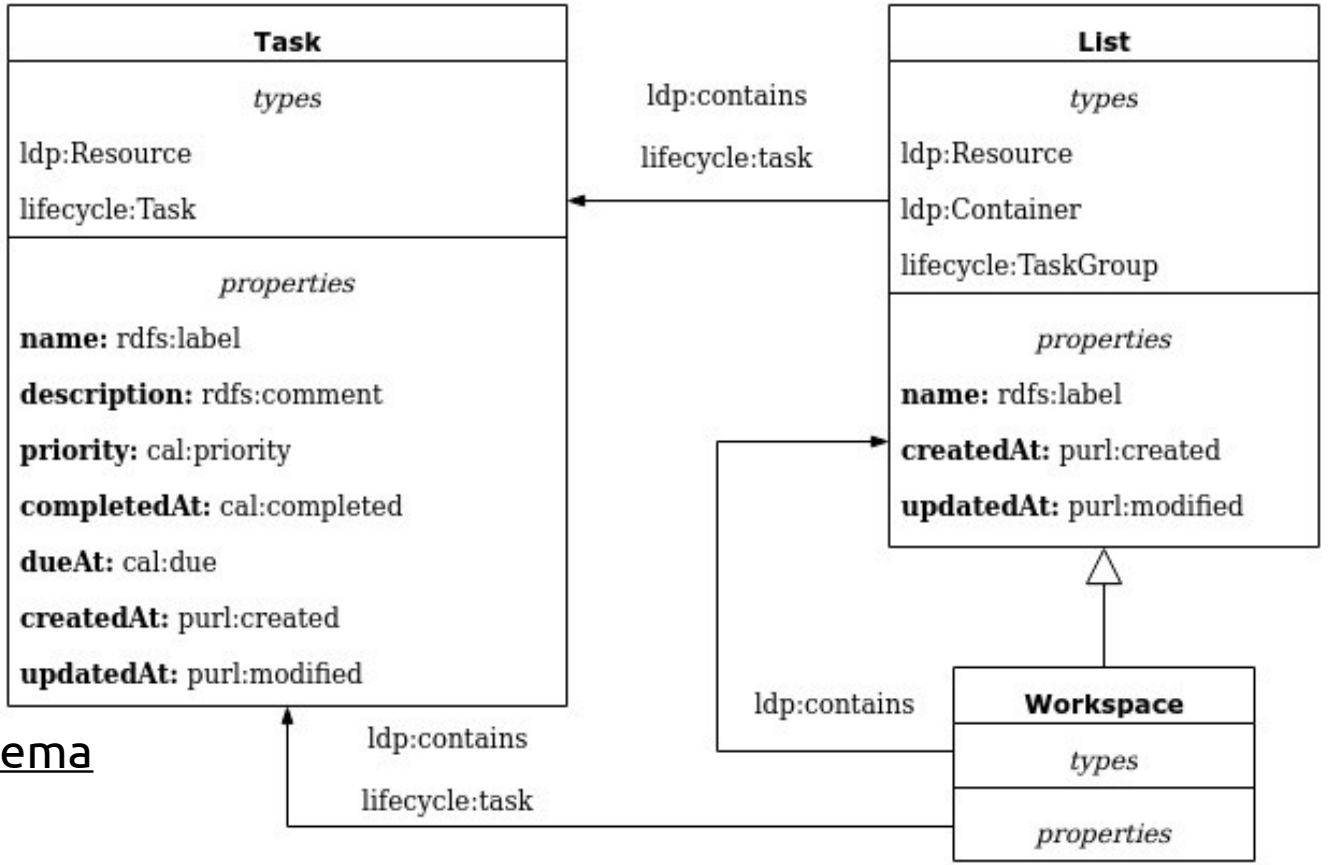
ldp:
https://www.w3.org/ns/ldp

purl:
http://purl.org/dc/terms

cal:
https://www.w3.org/TR/rdfcal

rdfs:
https://www.w3.org/TR/rdf-schema

lifecycle:
http://purl.org/vocab/lifecycle/schema



```
import { SolidModel } from 'soukai-solid';

class Task extends SolidModel {

    static rdfContexts = {
        lifecycle: 'http://purl.org/vocab/lifecycle/schema#',
        cal: 'http://www.w3.org/2002/12/cal/ical#',
    };

    static rdfsClasses = ['lifecycle:Task'];

    static fields = {
        // ...
    };

}
```

```
static fields = {
    name: {
        type: FieldType.String,
        rdfProperty: 'rdfs:label',
        required: true,
    },
    description: {
        type: FieldType.String,
        rdfProperty: 'rdfs:comment',
    },
    // ...
};
```

```
static fields = {
    // ...
    priority: {
        type: FieldType.Number,
        rdfProperty: 'cal:priority',
    },
    dueAt: {
        type: FieldType.Date,
        rdfProperty: 'cal:due',
    },
    completedAt: {
        type: FieldType.Date,
        rdfProperty: 'cal:completed',
    },
};
```

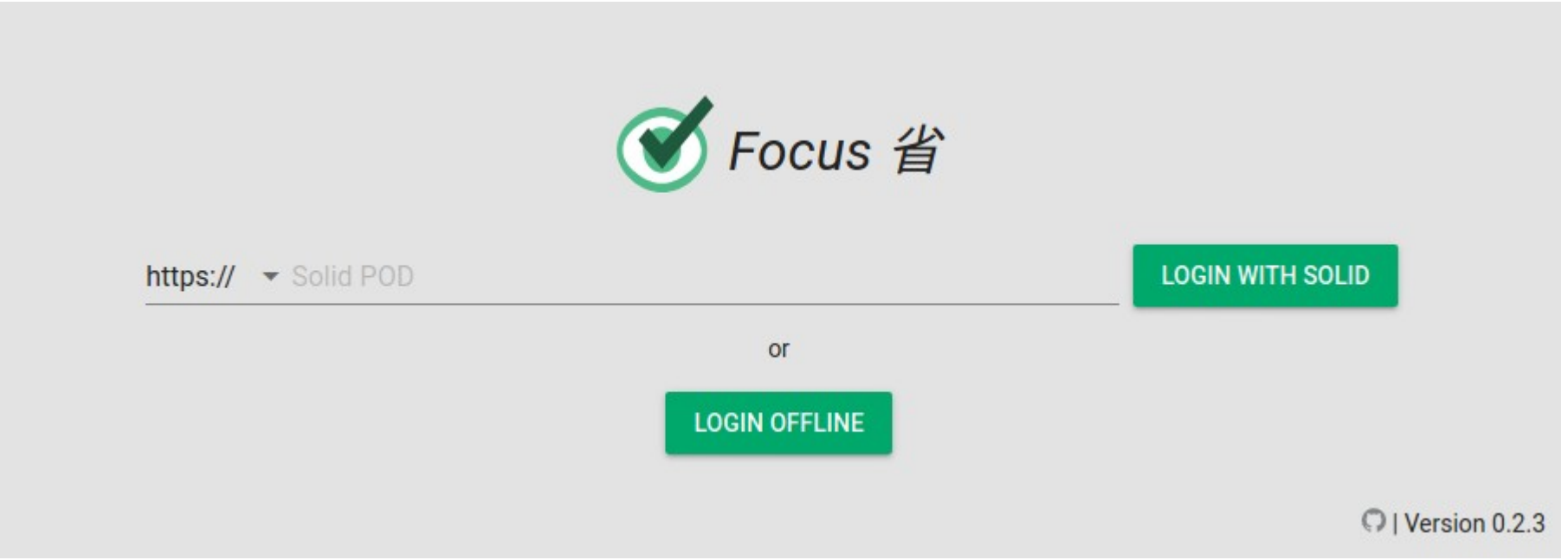
```
const task = new Task({
    name: 'Give lightning talk at #BlockchainSpirit',
    dueAt: new Date('2020-02-27'),
});

await task.save('https://my-pod-url.com/tasks');
```

```
await task.update({ completedAt: new Date() });
```

Try it yourself!

https://noeldemartin.github.io/solid-focus



- *Get your own POD at https://solid.inrupt.com/get-a-solid-pod*
- *You can also login offline (thanks to Soukai's LocalStorage engine!)*

Thank you!

⏳ 🧠 🔥

To learn more, you can read my Dev Journal:
find these entries at noeldemartin.com/tasks

- Implementing a Task Manager using Solid
- Improving Solid Focus Task Manager
- Configuring a self-hosted Solid POD server

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