

State of the RDF JS Libraries

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Motivation

RDF & semantic web is growing during past decade and many websites are willing to add more information to the HTML tags to make them more machine readable. Therefore, front-end support for such data is needed. This project helps interested people see available RDF-JS libraries, filter them and view two experiments on two SPARQL libraries.

Approach

Research on available libraries

Categorize them based on W3C categories:

- Parsing
- SPARQL/Queries
- Storage
- UI and Binding

Evaluate two SPARQL supporting libs with Waterloo WatDiv Datasets

(<http://dsg.uwaterloo.ca/watdiv/>)

Experiments

- Queries: Simple (Linear), Complex, Snowflake
- Datasets: Three different sizes: 100K, 1M, 10M

Application

Easy to use tool to see and find RDF-JS libs

Listing & Filtering of libraries

Available at: <http://txwkw.github.io/RDFJS4U/>

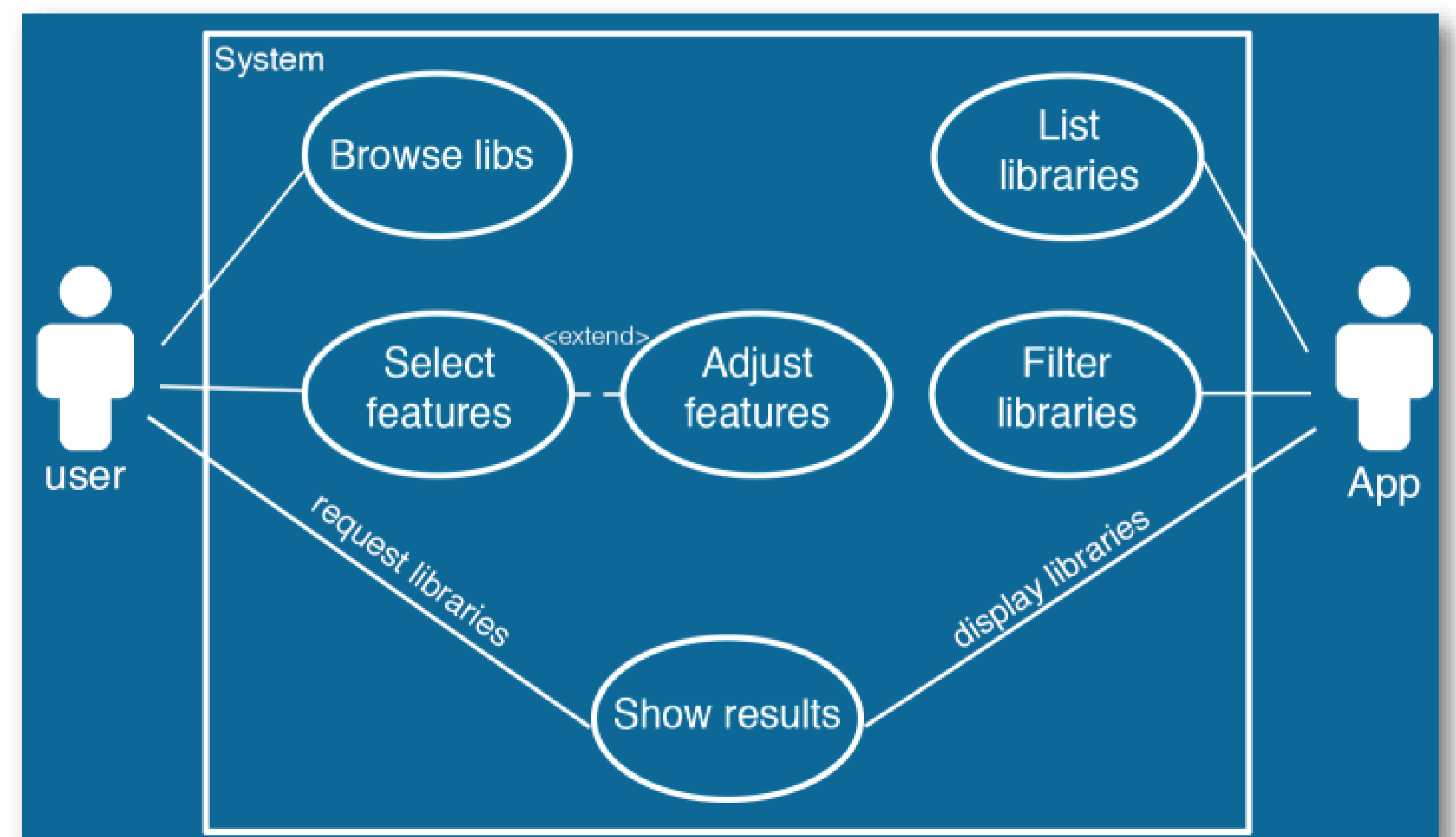
Open source code is here:

<https://github.com/txwkw/RDFJS4U>

The screenshot shows the 'RDFJS 4 U' application interface. On the left, there's a 'FILTERS' sidebar with sections for 'General' (Open Source, Documentation, W3C Certified), 'Parsing' (Media type, Environment, Interface), 'SPARQL/Query' (Language), and 'Data storage' (Storage Method, Indexing). The main area is titled 'Comparison of RDF JavaScript libraries' and features a search bar with the text 'Q Search: 22 results have matched your request!'. Below the search bar, there's a table with columns: Name, License, Docs, OSS, Github stars, W3C Cert, Latest Update, Size, and Link. The table lists various libraries like node-rdf, sparql-spin-js, rdfstore-js, rdfquery, N3.js, SPARQL.js, jsonld.js, green-turtle, RDF-Ext, rdfib.js, LevelGraph, Backbone Linked, SemantickO, hydra-core, and GeoKnow/FAIG-ais.

Name	License	Docs	OSS	Github stars	W3C Cert	Latest Update	Size	Link
node-rdf	Unlicense		✓	54	✓	17-09-2014	27 KB	Link %
sparql-spin-js	Unlicense		✓	11	✓	14-11-2012	12 KB	Link %
rdflib-js	MIT	✓	✓	429	✓	27-05-2016	1 MB	Link %
rdflib.js	MIT	✓	✓	124	✓	14-07-2009	264 KB	Link %
N3.js	MIT		✓	227	✓	18-09-2015	63 KB	Link %
SPARQL.js	MIT		✓	99	✓	26-01-2016	145 KB	Link %
jsonld.js	BSD		✓	554	✓	25-04-2016	208 KB	Link %
green-turtle	BSD		✓	32	✓	01-11-2014	15 KB	Link %
RDF-Ext	MIT		✓	0	✓	17-03-2015	605 KB	Link %
rdflib.js	MIT	✓	✓	169	✓	11-05-2016	323 KB	Link %
LevelGraph	MIT		✓	704	✓	18-06-2016	697 KB	Link %
Backbone Linked	MIT	✓	✓	7	✓	11-10-2013	322 KB	Link %
SemantickO	MIT		✓	29	✓	06-02-2012	563 KB	Link %
hydra-core	W3C	✓	✓	28		11-08-2015	48 KB	Link %
GeoKnow/FAIG-ais	Apache	✓	✓	1		22-09-2015	239 KB	Link %

Use Case



Challenges

- Finding proper dataset
- Finding queries
- Lack of documentation
- Lack of organized and well-defined study
- Representing data in a user-friendly manner
- Building an easy to maintain & contribute project

Virtual Machine



Hostname: **vm-<EIS02>**

Software installed: a full copy of the source code

Local Access:

OS User: **Windows16-**

StateOfRDFJSlibs

Password: **jsstate4rdf**

Technologies



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