Semantic annotations tool for EIS publications

This tool is a research effort for **annotating** text and **tabular** information in a pdf document via **crowdsourcing**. It also facilitate a user to annotate tabular information using **DataCube RDF** vocabulary. This tool **transforms** selected pdf table info into data cube RDF.

Annotation window

Software Architecture Diagram - Semantic annotation tools for EIS publications

DataCube RDF segment of transformed table info

http://example.org/ns#table1R3C2	http://eisAnnotation/#value	"Birth information for the United States from 1969 to 2008"
http://example.org/ns#table1R5C2	http://eisAnnotation/#value	"Revision information for Wikipedia articles"
http://example.org/ns#table1R1C2	http://eisAnnotation/#value	"Samples from US weather stations since 1929"
http://example.org/ns#table1R4C2	http://eisAnnotation/#value	"Word index for works of Shakespeare"
http://example.org/ns#table1R2C2	http://eisAnnotation/#value	"Measurement data of broadband connection performance"
http://example.org/ns#table1R4C3	http://eisAnnotation/#value	"164 Kilo"
http://example.org/ns#table1R2C3	http://eisAnnotation/#value	"240 Billion"
http://example.org/ns#table1R5C3	http://eisAnnotation/#value	"314 Million"
http://example.org/ns#table1R3C3	http://eisAnnotation/#value	"68 Million"
http://example.org/ns#table1R1C1	http://eisAnnotation/#value	"Gsod sipa"
http://example.org/ns#table1R2C1	http://eisAnnotation/#value	"Mlab abc"
http://example.org/ns#table1R3C1	http://eisAnnotation/#value	"Natality sky"
http://example.org/ns#table1R4C1	http://eisAnnotation/#value	"Shakes peare"
http://example.org/ns#table1R5C1	http://eisAnnotation/#value	"Wiki pedia"
http://example.org/ns#table1R1C3	http://eisAnnotation/#value	"115 Million "

Representation of cell in the data cube

For example, in data cube the cell - "Birth information for the United States from 1969 to 2008" , has been represented in the following way.

p	o
http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://purl.org/linked-data/cube#Observation
http://eisAnnotation/#value	"Birth information for the United States from 1969 to 2008"
http://purl.org/linked-data/cube#dataSet	http://example.org/ns#table1
http://example.org/ns#table1Row	3
http://example.org/ns#table1Column	2

Setup / Installation process

- Install virtuoso universal server
- Download the code from git repo
- In the downloaded directory open the index.html in any browser.
- For details set up please follow the git hub link section in the bottom.

Virtuoso setting

- Make sure that virtuoso endpoint is listening at http://localhost:8890/
- Login as admin (user: dba, pass: ***) in the backend (http://localhost:8890/conductor/)
- Update write permission settings for user : sparql
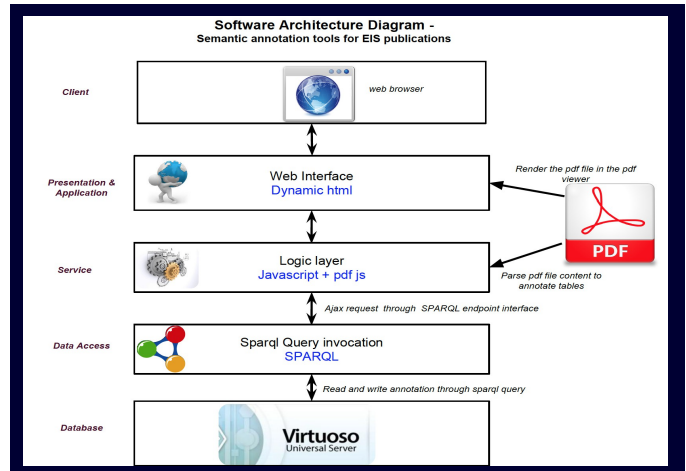- Enable CORS for the Data Access of JS client

Technology used

- VirtuosoUniversal Server
- SPARQL as a query
- JavaScript + Html
- Pdf.js as rendering
- Qunit as JavaScript test environment
- DataCube (http://www.w3.org/TR/vocab-data-cube/)

VM settings

VM Name : Ubuntu-sciPubAnn
OS: Ubuntu 12.04 LTS (32 bit)
RAM: 3.9 GB
CPU: Intel® Core™ i7-4770 CPUs @3.40GHz
HDD: 4.2 GB (possible increase)

Physical work station

Hostname: EIS-02
Description: Physical PC at Uni Bonn
OS: Windows 7 Enterprise SP1 64bit
RAM: 16 GB (14 GB Free)
CPU: Intel Core i7-4770 @3.4GHz
HDD: (C:) 240 GB & (L:) 930 GB
IP Address: 131.220.153.88

Project's Git hub links

- **Code link:**
  https://github.com/saifulnipo/eis-semantic-annotation
- **Documentation link :**
  https://github.com/saifulnipo/eis-semantic-annotation/wiki
- **Release note :**
  https://github.com/saifulnipo/eis-semantic-annotation/releases

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