

LOV & JSON-LD example

Semantic Annotations task
STI Innsbruck
WS 2015

Example

- Let's say that we have to run the task for the URL:

<http://sti-innsbruck.at/teaching/course-schedule/ws-201516/web-services-ws-201516>

- The URL refers to a course.

Step1: Search in LOV

dataset/lov

OCABS

TERMS

AGENTS

SPARQL/DUMP

Linked Open Vocabularies (LOV)



Documentation



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Step2: Check results in LOV

197 results	
crsw:Course (crsw) 22 occurrences in 2 LOD datasets http://courseware.rkbexplorer.com/ontologies/courseware#Course rdfs:comment This class encapsulates a course that is taught to students rdfs:label Course localName Course	0.733
dbpedia-owl:Race (dbpedia-owl) n/a (use in LOD) http://dbpedia.org/ontology/Race rdfs:label course @fr	0.556
ov:hudCourse (ov) n/a (use in LOD) http://open.vocab.org/terms/hudCourse rdfs:label course @en rdfs:comment A course associated with a book loan @en localName hudCourse	0.481
teach:Course (teach) n/a (use in LOD) http://linkedscience.org/teach/ns#Course	0.479

Step3: Pick the term URI

- Pick the term URI that covers your needs based on your opinion.
- Fill in the table:

Term t URI	3-5 candidate terms	Why did you choose t ?
teach:Course*	crsw:Course, dbpedia-owl:race, ov:hudCourse*	Because crsw website is down. Dbpedia result is irrelevant and ov was confusing to use it. (Write whatever drove your decision.)

***Use in your answers the full URIs: <http://linkedscience.org/teach/ns#Course>**

Step4: Build the JSON-LD

- Go to the JSON-LD playground and browse through the examples:
<http://json-ld.org/playground/>
- You need to understand basic things:
 - @context : specifies the namespaces that we use terms from.
 - @id: specifies the URI of the entity that the JSON-LD snippet refers to.
 - @type: specifies the type of the entity

For our example

```
{  
  "@context": {  
    "teach": "http://linkedscience.org/teach/ns#"  
  },  
  "@id": "http://sti-innsbruck.at/teaching/course-  
schedule/ws-201516/web-services-ws-201516",  
  "@type": "teach:Course",  
  "teach:courseTitle": "Web Services WS 2015/16",  
  "teach:teacher": "http://www.sti-innsbruck.at/about/  
team/details/anna-fensel"  
}
```

Step5: Does the parser complain?

```
{
  "@context": {
    "teach": "http://linkedscience.org/teach/ns#",
    "foaf": "http://xmlns.com/foaf/0.1/"
  },
  "@id": "http://sti-innsbruck.at/teaching/course-schedule/ws-201516/web-services-ws-201516",
  "@type": "teach:Course",
  "teach:courseTitle": "Web Services WS 2015/16",
  "teach:teacher": "http://www.sti-innsbruck.at/about/team/details/anna-fensel"
}
```

No complaints! Seems to be good!

Expanded

Compacted

Flattened

Framed

N-Quads

Normalized

```
[
  {
    "@id": "http://sti-innsbruck.at/teaching/course-schedule/ws-201516/web-services-ws-201516",
    "@type": [
      "http://linkedscience.org/teach/ns#Course"
    ],
    "http://linkedscience.org/teach/ns#courseTitle": [
      {
        "@value": "Web Services WS 2015/16"
      }
    ],
    "http://linkedscience.org/teach/ns#teacher": [
      {
        "@value": "http://www.sti-innsbruck.at/about/team/details/anna-fensel"
      }
    ]
  }
]
```


Notes

In the example table we show how it looks like for only one term URI.

However, you need to find terms for any piece of information that is useful on the page. For example, the JSON-LD includes the course title and teacher. It could include slides, course description, etc.