KOS

Miroslav Blaško

November 9, 2017

1 Exercises – SKOS

The exercises are targeted to practice browsing and creating controlled vocabularies based on SKOS. Although it is possible to create SKOS based vocabularies within plain *Protege 5*, it is rather cumbersome[1]. Instead, we will set up web-based collaborative SKOS editor *VocBench 3*[2] to create data within our *GraphDB repositories*.

To access the *Vocbench 3* web application see instructions in Sec. 2, for additional online resources for excercises see Sec. 3, a partial SKOS model is described in Sec. 4.

Ex. 1 — Create simple thesaurus based on SKOS vocabulary consisting of at least 5 terms that would be useful to run web pages of some ZOO. Requirements of the ZOO web application are browsing concrete animals located in ZOO (as in `https://www.zoopraha.cz/en/animals/let-s-get-to-know-each-other`) as well as showing information about their species. The thesaurus does not need to be covering whole domain. Use SKOS vocabulary to describe your thesaurus terms (e.g. `skos:broader`/`skos:narrower`, `skos:related`, `skos:prefLabel`, `skos:altLabel`, `skos:definition`, `skos:example`, `skos:inScheme`).

Ex. 2 — Search within Schools Online Thesaurus (ScOT) (see Sec. 3) for related terms that can be used in ZOO application for description of animal species. Extend you vocabulary with relevant top-level terms and map terms in ScOT thesaurus using SKOS vocabulary (e.g. `skos:exactMatch`, `skos:closeMatch`, `skos:broadMatch`, `skos:relatedMatch`)

2 Vocbench instructions

1. Register within *VocBench 3* at `https://onto.fel.cvut.cz/vocbench-students`.

2. Ask teacher of the seminar to:

---

[1]It is cumbersome because Protege is targeted primarily to OWL ontologies while missing appropriate visualizations and editing features for SKOS. There is also possibility to install SKOSed Protege 4 plugin that is however unfortunately of poor quality and it is not actively developed anymore.
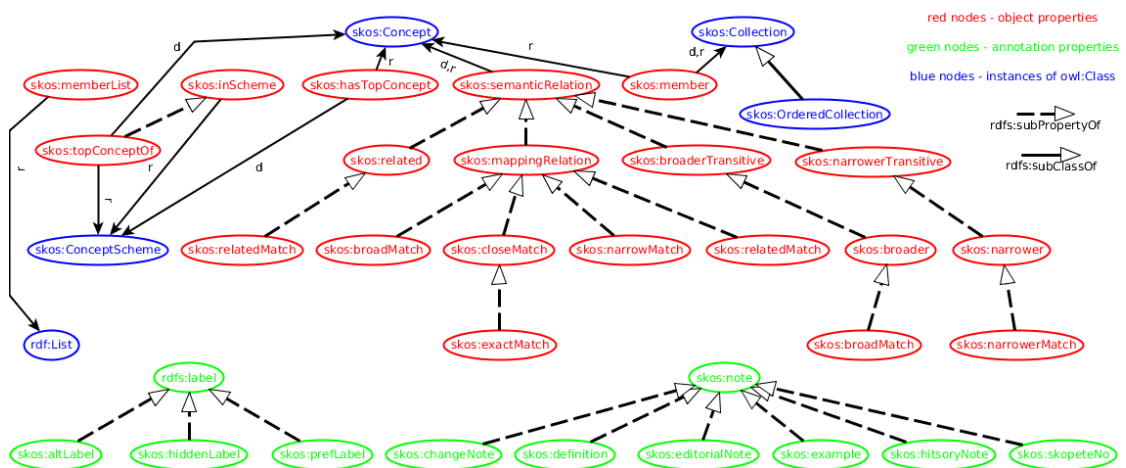
[2]`http://vocbench.uniroma2.it/`

a) activate your account

b) assign you to a group[3] SKOS project or new individual SKOS project

3. Log in to the VocBench web-interface

3 References for Exercises

- Schools Online Thesaurus (ScOT) :
  - search of thesaurus terms – `http://scot.curriculum.edu.au/`, after navigation to some term page the relevant skos fragment of the term can be downloaded RDF/XML format.
  - nice visualization of the thesaurus – `http://vocabularyserver.com/visualvocabulary/index.php`
  - whole thesaurus download – `http://vocabulary.curriculum.edu.au/`

4 Partial SKOS Model – Axiomatic Triples

5 Other Related References

5.1 SKOS Dataset Lists

- `http://www.w3.org/2001/sw/wiki/SKOS/Datasets`

- `http://datahub.io/dataset?tags=format-skos`

---

[3]It is advised to cooperate with multiple people on the same project to explore issues with collaborative specification of terminologies.

5.2 Potentially Related Thesauri for Use with Transportation Domain in CR

- Registry of territorial identification, addresses and real estate of the Czech Republic
  – `https://old.datahub.io/dataset/cz-ruian`

- Deaths by selected causes of death in regions of Czech Republic – `https://old.datahub.io/dataset/cz-czso-deaths-by-selected-causes-of-death`

- Number of inhabitants in districts of Czech Republic in 5year age categories – `https://old.datahub.io/dataset/cz-czso-demography-in-regions-czech-republ`

- Chemicals reported to the Integrated register of pollution – `https://old.datahub.io/dataset/cz-cenia-irz-chemicals`