SKOS

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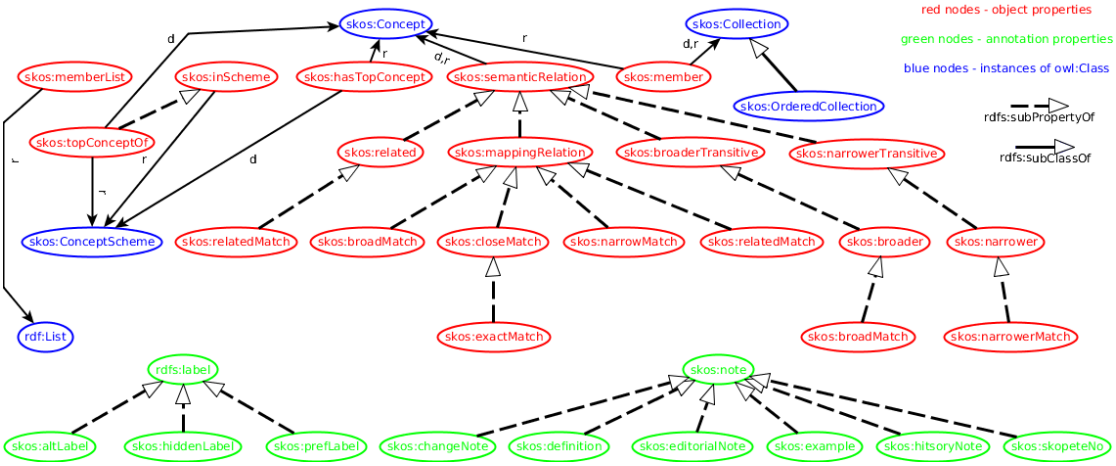
1 Goal

The goal of this seminar is to become familiar with SKOS – to explore an existing SKOS thesaurus, and to create and manage a simple SKOS thesaurus for the categorization of animals.

2 SKOS

SKOS is an RDF vocabulary for creating simple controlled multi-lingual vocabularies and organize them. An overview of SKOS structure is depicted here:



3 VocBench

VocBench is an open-source web application for collaborative SKOS authoring.

1. Register within *VocBench 3* at `https://onto.fel.cvut.cz/vocbench-students`.
2. Ask teacher of the seminar to:

a) activate your account

b) assign you to a group[1] SKOS project or new individual SKOS project

3. Log in to the VocBench web-interface

4. 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. 3, for additional online resources for excercises see Sec. **??**, a partial SKOS model is described in Sec. 2.

4 Exploration of EuroVoc

Ex. 1 — Browse the content of the EuroVoc thesaurus at `https://publications.europa.eu/cs/web/eu-vocabularies/thesauri` and find at least 2-3 concepts that are relevant to the topic of your semestral work (search field in the top-right corner).

Ex. 2 — Open the EuroVoc Thesaurus in VocBench. To set the language(s) in which the vocabulary is rendered click on the avatar in the top-right corner and select `Preferences`. Then you have to refresh each view using the Refresh button in each view.

Ex. 3 — Explore the basic views on a VocBench vocbulary – the tabs `Class`, `Concept`, `Scheme`, `Collection`, `Property`.

Ex. 4 — Select one or more concept schemes in the `Scheme` tab and take a look at its detail. Can one concept belong to more concept schemes ?

Ex. 5 — Select the concept `aglomerace` and explore its properties. What is the difference between `skos:inScheme` and `skos:topConceptOf`?

Ex. 6 — Find (bottom left text field) the concept "strom" (tree) and see what is its `skos:broader` relationship. Is this relationship expressing similar type of meaning as the `skos:broader` relationship of "horský les" (mountain forest) ?

Ex. 7 — Using SPARQL, find out the number of all concepts (both top-concepts and lower-level concepts) for each concept scheme. What are the top 3 concept schemes according to the number of concepts ?

5 Creation of a Thesaurus

Ex. 8 — Create a simple thesaurus based on the SKOS vocabulary consisting of at least 5 SKOS concepts that would be useful to run a web site about animals (e.g. are browsing concrete animals located in a ZOO as in `https://www.zoopraha.`

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

[2] `http://vocbench.uniroma2.it/`

cz/en/animals/let-s-get-to-know-each-other), showing information about their species, their characteristics (e.g. body parts) and particular individuals of these species. The thesaurus does not need to cover the whole domain. Use SKOS to properly describe your concepts (e.g. `skos:broader`/`skos:narrower`, `skos:related`, `skos:prefLabel`, `skos:altLabel`, `skos:definition`, `skos:example`, `skos:inScheme`).

Ex. 9 — Link the concepts in your thesaurus to the appropriate EuroVoc (and/or other external) concepts (e.g. using `skos:exactMatch`, `skos:closeMatch`, `skos:broadMatch`, `skos:relatedMatch` properties)

6 Some SKOS Vocabularies (Lists)

- EuroVoc `https://publications.europa.eu/en/web/eu-vocabularies/home`
- czech vocabularies for open data descriptions `https://slovnik.gov.cz/prohlížeč`
- Schools Online Thesaurus (ScOT) – `http://scot.curriculum.edu.au/`
- Cultura Italia Thesaurus – `http://www.culturaitalia.it/pico/thesaurus/4.3/thesaurus_4.3.0.skos.xml`