Knowledge and the Web 2016/2017: Exercise session 1

October 12, 2016

OBJECTIVE

Today you will familiarize yourself with SPARQL, a native language of the Semantic Web. You will use SPARQL throughout the course to gather data from different knowledge bases.

TASKS

1. visit the Quepy webpage and play with the demo interface. Pay attention how natural language questions map to SPARQL queries. This should give you a flavour how question map to SPARQL queries.
2. Now you will write your own queries. A good way to start is by using ARQ. It is included in apache-jena, so please download its most recent version. Then, follow the SPARQL tutorial to understand how to use it. Download the RDF data from Toledo (More on ARQ as a library can be found here)
3. You should now be comfortable with SPARQL queries. So far, you have queried DRF dataset from your computer. As the final task, go back to the queries from the task 1), and figure out the way how to retrieve the data from the online resource of DBpedia.

ADDITIONAL RESOURCES

- You can also run the queries through YASGUI or SNORQL
- additional examples of SPARQL queries can be found here, here and here

THINGS YOU SHOULD LEARN

- get familiar with writing SPARQL queries
- get familiar with apache-jena
- how to query an online RDF knowledge base

NOTES:

1. You can use `Jena` and `ARQ` as a command line tool or as a Java/Scala library. The focus of this exercise session is on the `SPARQL` language, not on the tool itself. You can choose any option you prefer, but be sure to minimize the time needed to get yourself familiar with the tool.

2. If you don't manage to finish the tasks during the exercise session, please finish them at home

3. No need to handle anything at the end of the session. If you have questions, feel free to email Sebastijan Dumancic (be sure to put [KaW] in the subject line), or ask during the exercise session.