SPARQL

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1 Exercises – DBPedia

Use the `http://dbpedia.org/sparql` endpoint for posing queries. For finding suitable resources, please use either the DBPedia ontology `http://mappings.dbpedia.org/server/ontology/classes/`, or the browser available at `http://live.dbpedia.org/page/Czech_Republic`.

Ex. 1 — Find all types (classes), the resource describing Prague belongs to.

Ex. 2 — Find labels of Prague in english and german.

Ex. 3 — List all EU members (countries) and show what is the relative strength of a voter in different EU countries (i.e. the ratio of total population to the number of seats in the EU parliament). Take the Czech Republic (`http://dbpedia.org/resource/Czech_Republic`) as an example to explore the properties. Note that not all information is available for all countries. (Hint: Explore the type `http://dbpedia.org/resource/Category:Member_states_of_the_European_Union`)

Ex. 4 — How many actors died in another country than they got born according to DBPedia. Group by countries where the actors were born. (Hint: Start with the actor type `http://dbpedia.org/resource/Actor`.)

Ex. 5 — Which world countries have more than one official language ? (Hint: Use HAVING)

Ex. 6 — Find ten countries with the highest population and show their gross domestic product per capita.

Ex. 7 — Find all parliamentary republics optionally together with their english label (if exist).

Ex. 8 — Find all female ancestors of the Prince Charles. (Hint: Start with the resource `http://dbpedia.org/resource/Charles,_Prince_of_Wales` and use property path expressions.)

Ex. 9 — Using the CSSZ SPARQL endpoint `https://data.cssz.cz/sparql-query-editor`, create a SPARQL query finding the ratio of newly approved disability pensions comparing to the total number of conducted medical reports related to disabilities in individual years.
Compare your solution to the corresponding exercise in Seminar 1.

2 Relevant References

- DBPedia SPARQL endpoint `http://dbpedia.org/sparql`

- CSSZ SPARQL endpoint `https://data.cssz.cz/sparql-query-editor`

- OSW ontology SPARQL endpoint `http://onto.fel.cvut.cz:7300/repositories/osw2018-ontology`

- SPARQL endpoint list `http://www.w3.org/wiki/SparqlEndpoints`