Opdenplatz, Juliette
Haselwanter, Stefan

Semantic Web Services
Assignment 5

doc.md
rev. 1 / 28.04.2018
Seite 1 von 2

1 Task

Write a SPARQL query to retrieve "States of Austria with their capital cities and the geo-coordinates of those cities". Run the query against http://dbpedia.org/sparql. Submit the complete query and query results.

2 SPARQL Query

Note that the first subquery somehow doesn't include Vienna so we do a union where we specifically just include a row for it. It gets a little ugly but for the sake of complemeteness we do it like that.

```
SELECT DISTINCT ?state ?state_label ?capital ?capital_label ?lon_label ?lat_label
WHERE {
  {
    ?state dct:subject dbc:States_of_Austria.
    ?state dbp:seat ?capital.
    ?capital geo:long ?lon_label.
    ?capital geo:lat ?lat_label.
    ?state rdfs:label ?state_label.
    ?capital rdfs:label ?capital_label.
    FILTER (lang(?capital_label)='en' and lang(?state_label)='en')
  }
  UNION
  {
    ?capital dct:subject dbc:Vienna.
    ?capital geo:long ?lon_label.
    ?capital geo:lat ?lat_label.
    ?capital rdfs:label ?capital_label.
    ?state dct:subject dbc:Vienna.
    ?state rdfs:label ?state_label.
    FILTER ( ?capital_label = "Vienna"@en and ?state_label = "Vienna"@en)
  }
}
```

3 Result

state	state_label	capital	capital_label	lon_label	lat_label
Styria	"Styria"@en	Graz	"Graz"@en	15.4333	47.0667
Tyrol	"Tyrol (state)"@en	Innsbruck	"Innsbruck"@en	11.3833	47.2667
Carinthia	"Carinthia"@en	Klagenfurt	"Klagenfurt"@en	14.3	46.6167
Upper Austria	"Upper Austria"@en	Linz	"Linz"@en	14.2833	48.3
Salzburg (state)	"Salzburg (state)"@en	Salzburg	"Salzburg"@en	13.0333	47.8
Voralberg	"Voralberg"@en	Bregenz	"Bregenz"@en	9.74917	47.505
Burgenland	"Burgenland"@en	Eisenstadt	"Eisenstadt"@en	16.5167	47.85

Opdenplatz, Juliette
Haselwanter, Stefan

Semantic Web Services
Assignment 5

doc.md
rev. 1 / 28.04.2018
Seite 2 von 2

state	state_label	capital	capital_label	lon_label	lat_label
Lower Austria	"Lower Austria"@en	Sankt Pölten	"Sankt Pölten"@en	15.6167	48.2
Vienna	"Vienna"@en	Vienna	"Vienna"@en	16.3667	48.2