Open Data And Knowledge Graphs

Practical Work: Advanced set of SPARQL queries

Author: Esteban Aspe Ruiz

In all queries LIMIT as been introduced to reduce the answers of the query. If you want all results, please delete the LIMIT.

1. Get all the properties that can be applied to instances of the Politician class (<http://dbpedia.org/ontology/Politician>)

select ?property

where {

 ?x a <http://dbpedia.org/ontology/Politician> .

 ?x ?property []

} LIMIT 1000

2. Get all the properties, except rdf:type, that can be applied to instances of the Politician class

select distinct ?property

where {

 ?x a <http://dbpedia.org/ontology/Politician> .

 ?x ?property [].

 FILTER (?property != rdf:type)

} LIMIT 1000

3. Which different values exist for the properties, except for rdf:type, applicable to the instances of Politician?

select distinct ?property ?value

where {

 ?x a <http://dbpedia.org/ontology/Politician> .

```
 ?x ?property ?value.

 FILTER (?property != rdf:type)

} LIMIT 1000
```

4. For each of these applicable properties, except for rdf:type, which different values do they take globally for all those instances?

```
select distinct ?property ?valuesForAll

where {

 ?x a <http://dbpedia.org/ontology/Politician> .

 ?x ?property ?valuesForPoliticians.

 ?y ?property ?valuesForAll.

 FILTER (?property != rdf:type)

} LIMIT 1000
```

5. For each of these applicable properties, except for rdf:type, how many distinct values do they take globally for all those instances?

```
select distinct ?valuesForAll

where {

 ?x a <http://dbpedia.org/ontology/Politician> .

 ?x ?property ?valuesForPoliticians.

 ?y ?property ?valuesForAll.

 FILTER (?property != rdf:type)

} LIMIT 1000
```

NOTE: To obtain the Distinct values for each property, I considered using group by to group each property with their different values, but DBpedia informed me that the query would take too long.