

COMP9322 Week 8 Tutorial

Part 2 - Exploring DBPEDIA

Exploring DBPEDIA

- Can you remember the week 6 lab exercise on exploring DBpedia page on London? Today we are going to explore DBpedia knowledge graph through SPARQL.
- Visit the SPARQL query editor for DBpedia on <http://dbpedia.org/sparql>. You can write queries and execute them to access data in different result format.
- Run the following query to view all the triples associated with Sydney in DBpedia.

```
select distinct dbr:Sydney ?a ?b where {dbr:Sydney ?a ?b}
```

- Update the query above to get a description of Sydney (use “rdfs:comment” predicate).

```
select distinct ?b where {dbr:Sydney rdfs:comment ?b}
```

- Use the DBpedia query interface to complete following exercises.
1. Write and submit a query to find a property of Sydney that has integer value "1213".

```
select distinct ?b
where {
dbr:Sydney ?b "1213"^^xsd:integer
}
```

2. What is the URI of the property identified in question 1?

<http://dbpedia.org/property/rainfall>

3. Write a query to count the number of people (with a DBpedia entry) born in Sydney. (You may use `rdf:type`, `dbo:Person`, and `dbo:birthPlace` to design this query)

```
select distinct count(?a)
where {
    ?a rdf:type dbo:Person;
    dbo:birthPlace dbr:Sydney
}
```

Answer: 2574

4. Write a query that use “rdf:type” property to see all the categories to which `dbo:Sydney` belong, in DBpedia.

```
select distinct ?a
where{
dbr:Sydney rdf:type ?a
}
```

5. Above query says it is a type of “yago:WikicatAustralianCapitalCities”. Write a query to find what other cities belong to this type?

```
select distinct ?a
where {
    ?a rdf:type yago:WikicatAustralianCapitalCities
}
```

6. Write a query to identify the rdfs:lable of any **yago:WikicatAustralianCapitalCities** that has a higher rainfall than Sydney.

```
select distinct ?label
where {
    ?a rdf:type yago:WikicatAustralianCapitalCities .
    ?a dbp:rainfall ?t.
    ?a rdfs:lable ?label.
    dbr:Sydney dbp:rainfall ?k.
    FILTER (?t>?k)
}
```