QUERYING DBPEDIA WITH SPARQL

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Go to the following website [http://dbpedia.org/sparql] where is located the DBpedia endpoint. Once there, please complete and test the questions described below. To facilitate the assignment, the needed namespaces and template are provided.

1. In Dbpedia find the author, resource type, owner and languages linked with the concept Gmail. Gmail webpage is located at https://mail.google.com

```
select ?owner ?creator ?type ?lenguage ?homepage where{
dbr:Gmail dbo:owner  ?owner.
dbr:Gmail dbo:author ?creator.
dbr:Gmail dbo:type ?type.
dbr:Gmail dbp:language ?lenguage.
dbr:Gmail foaf:homepage ?homepage.}
```

2. We want to know what other resources have developed the creator of Gmail In order to complete the question, you will need the following data:

The attribute onto:author is related with the author's resource
The Paul Buchheit's URI is in http://dbpedia.org/resource/Paul_Buchheit

 Complete the code below:

```
PREFIX onto: <http://dbpedia.org/ontology/>

Select ?authorshipBuchheit where {
?authorshipBuchheit onto:author dbr:Paul_Buchheit.}
```

3. Visit the URL http://dbpedia.org/page/Paul_Buchheit. What filter should be added to get only the abstract in English?

```
PREFIX onto: <http://dbpedia.org/ontology/>
PREFIX res: <http://dbpedia.org/resource/>

Select ?abstract where {
res:Paul_Buchheit onto:abstract ?abstract.
FILTER (langMatches(lang(?abstract),"en"))}
```

4. Search other creators/authors, showing name, date birth, and place of birth. Show only 6 results

```
PREFIX dbo: <http://dbpedia.org/ontology/>
Select distinct ?creator ?dateOfBirth ?placeOfBirth where {
?recurso dbo:author ?creator .
?creador dbo:birthDate ?dateOfBirth.
?creador dbo:birthPlace ?placeOfBirth. }
limit 6
```

5. Add to the previous question the author's children's name (remove the limit restriction)

```
PREFIX dbo: <http://dbpedia.org/ontology/>
Select distinct ?creator ?children ?dateOfBirth ?placeOfBirth where {
?recurso dbo:author ?creator .
?creador dbo:birthDate ?dateOfBirth.
?creador dbo:birthPlace ?placeOfBirth.
?creador dbo:child ?children}
```

6. Outline the goal of the following code:

```
PREFIX dbpedia:<http://dbpedia.org/resource/>
Select * WHERE
{ ?a ?predicate ?object }
```

It returns all resources and the values for each attribute.

7. Run these two queries in the DBPedia:

Query1- Countries that speak Spanish ordered in alphabetic order

```
PREFIX owl:<http://dbpedia.org/ontology/>
PREFIX dbpedia:<http://dbpedia.org/resource/>
Select distinct ?spanish where
{ ?spanish owl:officialLanguage dbpedia:Spanish_language. }
 ORDER BY ASC (?spanish)
```

Query2-Countries that speak Spanish ordered in alphabetic order

```
PREFIX dcterms:<http://purl.org/dc/terms/>
```

Select distinct ?spanish where { dbr:Spanish_language dcterms:subject ?spanish. }
ORDER BY ASC (?spanish)

In the first one we get all the countries where spanish is the official language. In the second one, we get
the what appears in the field subject of the spanish language resource. The second one is not correct because it returns not only countries.

8. Build a query on Wikidata [https://query.wikidata.org/] with names of People from Spain, their occupation, and the place and date they were born

```
SELECT ?name ?occupation ?birthday ?place WHERE {
  ?name wdt:P27 wd:Q438633;
  wdt:P106 ?occupation;
  wdt:P569 ?birthday;
  wdt:P19 ?place.

  SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }

}
```

9. On Dbpedia, write a query to ASK if there is any country in the United Nations called "Paris" (result should be true or false)

```
ask{
  ?city rdfs:label "Paris"@en;
    a dbo:PopulatedPlace;
    dbo:country ?country.
    ?country a dbo:COuntry;
      dct:subject
    dbc:Member_states_of_the_United_Nations.
}
```

False. There is no country named Paris, only a city.

10. On Wikidata [https://query.wikidata.org/] find all the people whose birthday is the same day as yours (they can be born in a different year). Limit the result to 100

```
SELECT ?name ?date  WHERE {
  ?resource wdt:P569 ?date.
  ?resource rdfs:label ?name.
  FILTER(MONTH(?date) = 3 && DAY(?date) = 3)
}LIMIT 100
```