

# KARABUK UNIVERSITY WEB SEMANTICS HOME ASSIGNMENT

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Query idea: Display names and dates of birth and death of all people born in Berlin (Germany) between 1941-1945 in Second World War

By using online SPARQL Query Editor: <https://dbpedia.org/sparql>

The screenshot shows the SPARQL Query Editor interface. At the top, there are navigation links: "SPARQL Query Editor", "About", "Tables", "Conductor", "Facet Browser", and "Permalink". Below this, the "Default Data Set Name (Graph IRI)" is set to "http://dbpedia.org". The "Query Text" area contains the following SPARQL query:

```
PREFIX dbo: <http://dbpedia.org/ontology/>
PREFIX dbr: <http://dbpedia.org/resource/>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT DISTINCT ?name ?birth ?death

WHERE {
  ?person dbo:birthPlace dbr:Berlin .
  ?person dbo:birthDate ?birth .
  ?person rdfs:label ?name

  FILTER (lang(?name) = "de").

  OPTIONAL { ?person dbo:deathDate ?death . }

  FILTER ((?birth > "1941-01-01"^^xsd:date) &&
  (?birth < "1945-01-01"^^xsd:date)) .
}

ORDER BY DESC(?birth)
LIMIT 15
OFFSET 5
```

Below the query text, the "Results Format" is set to "HTML". There are "Execute Query" and "Reset" buttons. At the bottom, the "Execution timeout" is set to "30000" milliseconds.

**SELECT DISTINCT.** The SELECT DISTINCT statement is used to return only distinct (different) values. Inside a table, a column often contains many duplicate values; and sometimes you only want to list the different (distinct) values.

**FILTER (lang(?name) = "de").** This filters all values to the Deutsch language.

### OPTIONAL.

When OPTIONALS appear at the beginning of a query, they either

Don't match, and nothing happens

Do match, and now this is the starting dataset against which the rest of the query must match

When OPTIONALS appear after some statement has already matched some data, they either

Don't match, and nothing happens

**FILTER** ((?birth > "1941-01-01"^^xsd:date) && (?birth < "1945-01-01"^^xsd:date)). Filtered all values where birth\_date bigger than 1941-01-01 and less than 1945-01-01.

**ORDER BY DESC.** The ORDER BY keyword is used to sort the result-set in ascending or descending order. The ORDER BY keyword sorts the records in ascending order by default. To sort the records in descending order, use the DESC keyword.

**LIMIT.** The LIMIT clause is used to specify the number of records to return. The LIMIT clause is useful on large tables with thousands of records. Returning a large number of records can impact performance.

**OFFSET.** We can specify an OFFSET from where to start returning data.

## Result of QUERY:

SPARQL   HTML5 table		
name	birth	death
"Hans-Joachim Sprengberg"@de	1943-12-08	1978-03-06
"Kurt Demmler"@de	1943-09-12	2009-03-02
"Manuela (Sangerin)"@de	1943-08-18	2001-02-13
"Peter Maser"@de	1943-08-03	
"Karin Ugowski"@de	1943-07-11	
"Jürgen Geschke"@de	1943-07-07	
"Hans-Jürgen Papier"@de	1943-07-06	
"Peter Eggert"@de	1943-06-08	
"Gesine Schwan"@de	1943-05-22	
"Claudia von Werlhof"@de	1943-05-17	
"Jürgen Barth (Radsportler)"@de	1943-05-12	2011-01-17
"Claus Theo Gärtner"@de	1943-04-19	
"Jürgen Dueball"@de	1943-04-17	2002-10-15
"Jan Banas"@de	1943-03-29	
"Walfriede Schmitt"@de	1943-03-26	