### Part I

# Sparql Endpoint: http://rdf.disgenet.org/sparql/

## 1 Graphs research

### 1.1 Queries for graphs and results

```
graph all_graphs_included.sparql: 1 results
graph graphs_with_a_triple_min.sparql: 13 results
graph graphs_with_rdf_type.sparql: 9 results
The graphs with a triple min.sparql returns more results (13)
```

### 1.2 List of graphs selected

```
graph 1 - http://rdf.disgenet.org
graph 2 - http://www.openlinksw.com/schemas/virtrdf#
graph 3 - http://www.w3.org/2002/07/owl#
graph 4 - http://localhost:8890/sparql
graph 5 - http://localhost:8890/DAV/
graph 6 - b3sifp
graph 7 - http://www.openlinksw.com/schemas/oplweb#
graph 8 - virtrdf-label
graph 9 - urn:virtuoso:val:acl:schema
graph 10 - b3sonto
graph 11 - facets
graph 12 - urn:rules.skos
graph 13 - http://www.w3.org/ns/ldp#
```

# 2 Querying http://rdf.disgenet.org/sparql/

### 2.1 Results by query

Query class.sparql - distinct results: 309

Query property.sparql - distinct results: 818

Query label class.sparql - distinct results: 296

Query label\_property.sparql - distinct results : 356

Query subclass.sparql - distinct results: 0

Query subproperty.sparql - distinct results: 187

Query property domain.sparql - distinct results: 415

Query property\_range.sparql - distinct results : 400

Query indi\_range\_property.sparql - distinct results : 772

Query indi domain property.sparql - distinct results: 2592

Query entity type.spargl - distinct results: 500539

Total of unique results found 506684 on http://rdf.disgenet.org/sparql/

#### 2.2 Error Log

• Error on graph http://rdf.disgenet.org query/subclass.sparql : End-PointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph http://www.openlinksw.com/schemas/virtrdf# query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph http://www.w3.org/2002/07/owl# query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph http://localhost:8890/sparql query/subclass.sparql: EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398

(sec) exceeds the limit of 400 (sec)

• Error on graph http://localhost:8890/DAV/ query/subclass.sparql: EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph b3sifp query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph http://www.openlinksw.com/schemas/oplweb# query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph virtrdf-label query/subclass.sparql: EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

- Error on graph urn:virtuoso:val:acl:schema query/subclass.sparql: End-PointInternalError: The endpoint returned the HTTP status code 500
  - Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)
- Error on graph b3sonto query/subclass.sparql: EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph facets query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Error on graph urn:rules.skos query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

 $\bullet$  Error on graph http://www.w3.org/ns/ldp# query/subclass.sparql : EndPointInternalError: The endpoint returned the HTTP status code 500

Response: b'Virtuoso 42000 Error The estimated execution time 4398 (sec) exceeds the limit of 400 (sec)

• Number of errors: 13

# 3 Process before indexation

# 3.1 JSON results conversion after distinct operation

All string results were converted into valid json results

# 4 Partition in separated queries

The volume of 506684 results does not need query partition

#### 5 Elastic Search Indexation

Index 'class' already exits and will be completed Storing 309 results in index 'class' took 0.051 secs

Index 'property' already exits and will be completed Storing 818 results in index 'property' took 0.085 secs

Index 'label\_class' already exits and will be completed Storing 296 results in index 'label\_class' took 0.043 secs

Index 'label\_property' already exits and will be completed Storing 356 results in index 'label\_property' took 0.069 secs

Index 'subproperty' already exits and will be completed Storing 187 results in index 'subproperty' took 0.049 secs

Index 'property\_domain' already exits and will be completed Storing 415 results in index 'property\_domain' took 0.296 secs

Index 'property\_range' already exits and will be completed Storing 400 results in index 'property\_range' took 0.27 secs

Index 'indi\_range\_property' already exits and will be completed Storing 772 results in index 'indi\_range\_property' took 0.37 secs

Index 'indi\_domain\_property' already exits and will be completed Storing 2592 results in index 'indi\_domain\_property' took 1.601 secs

Query subpartition 1 for entity\_type Total of results to store : 500539

Partition size: 200000

Number of subpartitions: 3

Timesleep: 2 secs

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Index 'entity\_type' already exits and will be completed Storing 200000 results in index 'entity\_type' took 39.119 secs

Index 'entity\_type' already exits and will be completed Storing 200000 results in index 'entity\_type' took 45.105 secs Index 'entity\_type' already exits and will be completed Storing 100539 results in index 'entity\_type' took 18.979 secs

# 6 Getting results and indexing times

Getting results for http://rdf.disgenet.org/sparql/ took 8 min (494.181 secs) Indexation for http://rdf.disgenet.org/sparql/ took 2 min (137.967 secs)