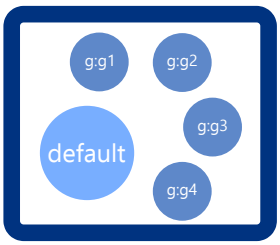
SPARQL graphs

Graphs in query evaluation

Every SPARQL query is always matched against an RDF Dataset.

RDF Dataset

An RDF dataset is composed of a set of graphs. In this set, there are zero or more NAMED GRAPH and exactly one DEFAULT GRAPH.



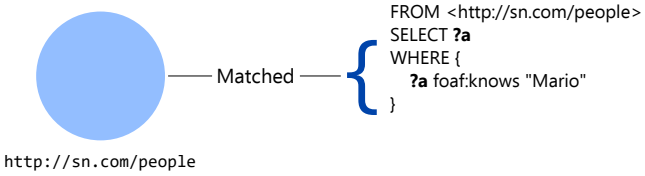
RDFDataset

The default graph

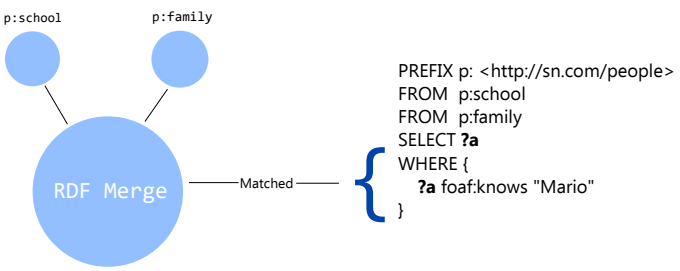
The Default Graph is the graph used to match **triple patterns** defined inside the WHERE clause.

Specify the default graph

In SPARQL 1.1 Query language the FROM keyword declares the default graph of a particular query



In a query with multiple FROM clauses, the default graph is the RDF merge of the declared graphs.



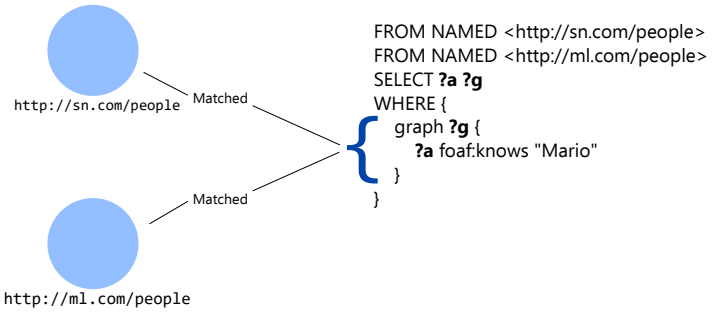
The "default" default graph

Generally, a query cannot be satisfied without knowing which default graph to use. So if the FROM clause is missing the endpoint should return an error message because it cannot find the graph in the RDF dataset. But some implementations use a "default" default graph in this cases. For example, Blazegraph uses the RDF merge of all the graph defined inside a namespace. This is also suggested by the SPARQL 1.1 language reference:

> *One possible arrangement of graphs in an RDF Dataset is to have the **default graph** be the RDF merge of some or all*

Named graphs

Every other graph contained in the RDF dataset is a NAMED GRAPH. NAMED GRAPHs are used to match QUAD patterns and can be restricted with the FROM NAME clause.



Putting toghether