

the data and find the apartments located in Amsterdam and return their human-friendly label if they have one. SPARQL provides two constructs for expressing such a query. Let's look at an example query:

PREFIX swp: <http://www.semanticwebprimer.org/ontology/apartments.ttl#>.

PREFIX geo: <http://www.geonames.org/ontology#>.

PREFIX dbpedia: <http://dbpedia.org/resource/>.

PREFIX dbpedia-owl: <http://dbpedia.org/ontology/>.

SELECT ?apartment ?label

WHERE {

{?apartment dbpedia-owl:location dbpedia:Amsterdam.}

UNION

{?apartment dbpedia-owl:locationCity dbpedia:Amsterdam.}

OPTIONAL

{?apartment rdfs:label ?label.}

}

The results of this query are:

?apartment	?label
swp:BaronWayApartment	Baron Way Apartment for Rent
swp:FloridaAveStudio	

The UNION keyword tells the triple store to return results that match one or both graph patterns. The OPTIONAL keyword tells the triple store to return results for the particular graph pattern if available. That is, the graph pattern does not have to be satisfied for the query to return. Thus, in this case, without the optional, the studio apartment would not be returned in the query results.

Similarly, property paths can also be used to create a more concise SPARQL query. Using the | operator, we can express one or more possibilities. Thus, the above