This document is part of the paper "RDF^M: An Alternative Approach for representing and maintaining meta-knowledge in Web of Data". It presents the queries used in the experiments described in the paper. This document is devided in four parts.: Part 1 which shows the queries used for BKR dataset, Part 2 which shows the queries used for Gov-track dataset, Part 3 which shows the queries used for Synthetic dataset with and without nested meta-knowledge, and Part 4 which shows the queries used for Dataset4.

Part I
Queries for BKR dataset in RDF^M format

Q1 select ?s ?p ?o
    where {
    ?s ?p[,,(,),] ?o ?i ?i2.
    ?i <http://knoesis.wright.edu/provenir/derives_from>[,,(,),]
    <http://mor.nlm.nih.gov/bkr/PUBMED_99992-INST> ?i1 ?i3 .}

Q2 select ?o1 ?o2 ?pmid2
    where {
    <http://mor.nlm.nih.gov/umls/META_C0543467>
    <http://mor.nlm.nih.gov/umls/SEMNET_TREATS>[,,(,),] ?o1 ?i ?i2 . ?i
    <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?o ?i1 ?i5 . ?o1
    <http://mor.nlm.nih.gov/umls/SEMNET_CAUSES>[,,(,),] ?o2 ?i3 ?i6 .
    ?i3 <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?pmid2 ?i4
    ?i7 .}

Q3 select ?o1 ?o2 ?pmid2 ?o3 ?pmid3
    where {
    <http://mor.nlm.nih.gov/umls/META_C0543467>
    <http://mor.nlm.nih.gov/umls/SEMNET_TREATS>[,,(,),] ?o1 ?i ?i9 . ?i
    <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?o ?i1 ?j1 . ?o1
    <http://mor.nlm.nih.gov/umls/SEMNET_CAUSES>[,,(,),] ?o2 ?i3 ?j2 .
    ?i3 <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?pmid2 ?i4

?j3 . ?o2 <http://mor.nlm.nih.gov/umls/SEMNET_AFFECTS>[,,(,),] ?o3
?i5 ?j4 . ?i5 <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?pmid3
?i6 ?j5 .}
LIMIT 10

Q4 select ?o ?i
   where {
   <http://mor.nlm.nih.gov/umls/META_C0006307>
   <http://mor.nlm.nih.gov/umls/SEMNET_TREATS>[,,(,),] ?o ?i ?i5 . ?i
   <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?o1 ?i1 ?i6 .}

Q5 select ?o1 ?n
   where {
   <http://mor.nlm.nih.gov/umls/META_C0012963>
   <http://mor.nlm.nih.gov/umls/SEMNET_STIMULATES>[,,(,),?n]
   <http://mor.nlm.nih.gov/umls/META_C0598981> ?i ?i1 .
   ?i <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?o1 ?i2 ?i3 .}

Q6 select ?n
   where {
   <http://mor.nlm.nih.gov/umls/META_C0012963>
   <http://mor.nlm.nih.gov/umls/SEMNET_STIMULATES>[,,(,),?n]
   <http://mor.nlm.nih.gov/umls/META_C0598981> ?i ?i1 .
   ?i <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?o1 ?i2 ?i3 .}

Q7 ASK{ ?o1 <http://mor.nlm.nih.gov/umls/SEMNET_CAUSES>[,,(,),] ?o2
   ?i3 ?j2 . ?i3 <http://knoesis.wright.edu/provenir/derives_from>[,,(,),] ?pmid2
   ?i4 ?j3 .}

Part II
Queries for Gov-track dataset in RDF^M format

Q8 select ?s1 ?t1 ?o1
   where {
   ?s1 <http://www.rdfabout.com/rdf/schema/usbill/hadAction>[,?t1,(,),] ?o1
   ?i1 ?i2 . }
   LIMIT 10

Q9 select ?s1 ?o1
  where {
  ?s1 <http://www.rdfabout.com/rdf/schema/politico/hasRole>[,,(1975,1976),]
  ?o1 ?i1 ?i2 . }

Q10 select ?o1
  where {
  <http://www.rdfabout.com/rdf/usgov/congress/106/bills/h1139>
  <http://www.rdfabout.com/rdf/schema/usbill/hadAction>[,1999,(,),1] ?o1
  ?i1 ?i2 . }

Q11 select ?t1 ?t3
  where {
  <http://www.rdfabout.com/rdf/usgov/congress/people/K000064>
  <http://www.rdfabout.com/rdf/schema/politico/hasRole>[,,(?t1,?t3),]
  <http://strabon.di.uoa.gr/blank_node/_node17cn1754hx23627> ?i1 ?i2 .
  }

Q12 select ?o1 ?o2
  where {
  <http://www.rdfabout.com/rdf/usgov/congress/106/bills/hr168>
  <http://www.rdfabout.com/rdf/schema/usbill/hadAction>[,1999,(,),] ?o2
  ?i1 ?i2 . ?o2 <http://purl.org/dc/elements/1.1/description>[,,(,),] ?o1 ?i3
  ?i4 . }

Q13 select ?s1 ?n
  where {
  ?s1 <http://www.rdfabout.com/rdf/schema/usbill/hadAction>[,1999,(,),?n]
  <http://strabon.di.uoa.gr/blank_node/_node17d3oknm3x29796> ?i1 ?i2 .
  }

Q14 select ?n
  where { <http://www.rdfabout.com/rdf/usgov/congress/people/K000064>
  <http://www.rdfabout.com/rdf/schema/politico/hasRole>[,,(,),?n]
  <http://strabon.di.uoa.gr/blank_node/_node17cn1754hx23627> ?i1 ?i2 .
  }

Part III
Queries for Synthetic dataset in RDF^M format

1. **Queries for Synthetic dataset without nested MK.**

Q15 select ?i5 ?s1 ?o1 ?o3 ?o2
where {
?s1 <http://xmlns.com/foaf/0.1/knows>[,,(,),] <http://example.org/objects/o1000020>
?i5 ?i6 . ?s1 <http://xmlns.com/foaf/0.1/name>[,,(,),] ?o1 ?i ?i1
. ?s1 <http://xmlns.com/foaf/0.1/nick>[,,(,),] ?o2 ?i2 ?i3 . ?i5
<http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o3 ?i7 ?i4
. }

Q16 select ?s1 ?o1 ?i5 ?n
where {
?s1 <http://xmlns.com/foaf/0.1/knows>[,,(,),?n] ?o1 ?i5 ?i6 . ?i5
<http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o3 ?i7 ?i4
. }

Q17 select ?o3 ?i5 ?n ?t1 ?t3
where {
<http://example.org/subjects/s1> <http://xmlns.com/foaf/0.1/knows>[,,(?t1,?t3),?n]
<http://example.org/objects/o1000013> ?i5 ?i6 .
?i5 <http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o3 ?i7
?i4 . }

Q18 select ?c ?i5 ?n ?t1 ?t3 ?o3
where {
<http://example.org/subjects/s2> <http://xmlns.com/foaf/0.1/knows>[?c,,(?t1,?t3),?n]
<http://example.org/objects/o1000020> ?i5 ?i6 .
?i5 <http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o3 ?i7
?i4 . }

2. **Queries for Synthetic dataset with nested MK.**

Q19 select ?c ?n ?i ?o2
where {
<http://example.org/subjects/s0> <http://xmlns.com/foaf/0.1/knows>[?c,,(,),?n]
<http://example.org/objects/o1000006> ?i ?i1 .
?i <http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o2 ?i2
?i3 . }

4

Q20 select ?s1 ?o1 ?o2
   where {
   ?s1 <http://xmlns.com/foaf/0.1/knows>[,,(,),] ?o1 ?i ?i1 .
   ?i <http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o2 ?i2
   ?i3 . }

Q21 ASK { <http://example.org/subjects/s0> <http://xmlns.com/foaf/0.1/knows>[,,(,),]
   <http://example.org/objects/o1000006> ?i ?i1 .
   ?i <http://purl.org/biotop/biotop.owl#derivesFrom>[,,(,),] ?o2 ?i2
   ?i3 . }

Part IV
Queries for Dataset4 in RDF^M format

Q22 select ?disease ?n
   where {
   ?s <http://rdf.ncbi.nlm.nih.gov/pubchem/vocabulary#causes>[,,(,),?n] ?dis-
   ease ?i ?i1 . ?disease <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>[,,(,),]
   ?o1 ?i6 ?i7 . }
   LIMIT 10

Q23 select ?rela1 ?i
   where {
   <http://rdf.ncbi.nlm.nih.gov/pubchem/compound/CID4946>
   <http://rdf.ncbi.nlm.nih.gov/pubchem/vocabulary#causes>[,,(,),] ?disease
   ?i ?i1 . ?disease <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>[,,(,),]
   ?o1 ?i6 ?i7 . ?rela1 <http://purl.org/spar/cito/providesAssertionFor>[,,(,),]
   ?i ?i2 ?i3 . }
   LIMIT 10

Q24 ASK { ?s <http://rdf.ncbi.nlm.nih.gov/pubchem/vocabulary#causes>[,,(,),]
   ?disease ?i ?i1 . ?disease <http://www.w3.org/1999/02/22-rdf-syntax-
   ns#type>[,,(,),] ?o1 ?i6 ?i7 . }

Q25 select ?n ?i
   where {
   <http://rdf.ncbi.nlm.nih.gov/pubchem/compound/CID4946>
   <http://rdf.ncbi.nlm.nih.gov/pubchem/vocabulary#causes>[,,(,),?n] ?dis-
   ease ?i ?i1 . }