Queries used in the chapter "Analysis and Synthesization of the Provenance Dimension MK Assertion"

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1 Queries used in the experiments - BKR dataset

We have done four queries represented in the following. Queries are written in NG format.
Query 1 : PREFIX provenir:¡http://knoesis.wright.edu/provenir/¿
PREFIX bkr:¡http://mor.nlm.nih.gov/bkr/¿
select ?s ?p ?o where { graph ?graph1 { ?s ?p ?o .} graph ?graph2 { ?graph1 provenir:derives_from bkr:PUBMED_10979521-INST .}}
Query 2 : PREFIX provenir:¡http://knoesis.wright.edu/provenir/¿
PREFIX bkr:¡http://mor.nlm.nih.gov/bkr/¿
PREFIX umls:¡http://mor.nlm.nih.gov/umls/¿
select ?o1 ?o2 ?pmid2 where { graph ?graph1 {umls:META_C0543467 umls:SEMNET_TREATS ?o1 .} graph ?graph2 { ?graph1 provenir:derives_from bkr:PUBMED_10979521-INST .} graph ?graph3 { ?o1 umls:SEMNET_CAUSES ?o2 .} graph ?graph4 { ?graph3 provenir:derives_from ?pmid2 .}}
Query 3 : PREFIX provenir:¡http://knoesis.wright.edu/provenir/¿
PREFIX bkr:¡http://mor.nlm.nih.gov/bkr/¿
PREFIX umls:¡http://mor.nlm.nih.gov/umls/¿
select ?o1 ?o2 ?pmid2 ?o3 ?pmid3 where { graph ?graph1 {umls:META_C0543467 umls:SEMNET_TREATS ?o1 .} graph ?graph2 { ?graph1 provenir:derives_from bkr:PUBMED_10979521-INST .} graph ?graph3 { ?o1 umls:SEMNET_CAUSES ?o2 .} graph ?graph4 { ?graph3 provenir:derives_from ?pmid2 .} graph ?graph5 { ?o2 umls:SEMNET_AFFECTS ?o3 .} graph ?graph6 { ?graph5 provenir:derives_from ?pmid3 .}}
Query 4 : PREFIX provenir:¡http://knoesis.wright.edu/provenir/¿
PREFIX umls:¡http://mor.nlm.nih.gov/umls/¿
select ?pmid where { graph ?graph1 {umls:META_C0012963 umls:SEMNET_STIMULATES umls:META_C0598981. } graph ?graph2 {?graph1 provenir:derives_from ?pmid.}}

2 Queries used in the experiments - Wiki dataset

We have done ten queries represented in the following.
Query 1 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿

SELECT ?p ?w ?l ?wl WHERE {GRAPH ?g1 { wd:Q30 wd:P6 ?p . } GRAPH ?g2 { ?p wd:P26 ?w . } OPTIONAL {?p rdfs:label ?l . filter (lang(?l) = "en") . ?w rdfs:label ?wl . filter (lang(?wl) = "en") .}}

Query 2 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿
SELECT ?h ?cause ?hl ?causel WHERE { GRAPH ?g1 { ?h wd:P39 wd:Q11696 . } GRAPH ?g2 { ?h wd:P509 ?cause . } OPTIONAL {?h rdfs:label ?hl . filter (lang(?hl) = "en") ?cause rdfs:label ?causel . filter (lang(?causel) = "en") }}

Query 3 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX wdo: ¡http://www.wikidata.org/ontology#¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿
PREFIX xsd: ¡http://www.w3.org/2001/XMLSchema#¿
SELECT ?h ?date WHERE { GRAPH ?g1 { ?h wd:P31 wd:Q5 . } . GRAPH ?g2 { ?h wd:P569 ?dateS . } ?dateS wdo:time ?date . FILTER NOT EXISTS {?h wd:P570s [wd:P570v ?d] .} FILTER (datatype(?date) = xsd:date && ?date ¡ "1880-01-01Z"8sd:date) } LIMIT 100

Query 4 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
SELECT ?property ?value WHERE { GRAPH ?g { wd:Q42 ?property ?value .} }

Query 5 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX wdo: ¡http://www.wikidata.org/ontology#¿
PREFIX rdf: ¡http://www.w3.org/1999/02/22-rdf-syntax-ns#¿
SELECT ?population ?time WHERE { GRAPH ?g { wd:Q64 wd:P1082 ?popS .} ?popS wdo:numericValue ?population . ?g wd:P585q [wdo:time ?time] .} ORDER BY (?time)

Query 6 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿
SELECT ?country ?countryName WHERE { GRAPH ?g { ?country wd:P31 wd:Q3624078 } . FILTER NOT EXISTS { ?g wd:P582q ?endDate } ?country rdfs:label ?countryName FILTER(lang(?countryName)="en")}

Query 7 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX wdo: ¡http://www.wikidata.org/ontology#¿
SELECT ?president ?start ?end WHERE { GRAPH ?g { wd:Q30 wd:P6 ?president . } ?g wd:P580q [wdo:time ?start] ; wd:P582q [wdo:time ?end] .} ORDER BY (?start)

Query 8 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
SELECT DISTINCT ?q_property WHERE { GRAPH ?g { ?subject wd:P6 ?object .} ?g ?q_property ?q_value .}

Query 9 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿
PREFIX owl: ¡http://www.w3.org/2002/07/owl#¿
SELECT ?countryName (COUNT (DISTINCT ?neighbor) AS ?neighbors) WHERE { GRAPH ?g1 { ?country wd:P31 wd:Q3624078 . } FILTER NOT EXISTS { ?g1 wd:P582q ?endDate } ?country rdfs:label ?countryName FILTER(lang(?countryName)="en") OPTIONAL { GRAPH ?g2 { ?country wd:P47 ?neighbor . } GRAPH ?g3 { ?neighbor wd:P31 wd:Q3624078 . } FILTER NOT EXISTS { ?g3 wd:P582q ?endDate2 .}}}GROUP BY(?countryName) ORDER BY DESC(?neighbors)

Query 10 : PREFIX wd: ¡http://www.wikidata.org/entity/¿
PREFIX rdfs: ¡http://www.w3.org/2000/01/rdf-schema#¿
SELECT ?person ?personname ?username WHERE { GRAPH ?g { ?person

wd:P553 wd:Q52 .} ?g wd:P554q ?username . ?person rdfs:label ?personname .
FILTER(LANG(?personname) = ”en”) .} LIMIT 100