## Appendix: Query Patterns Table and New Generated Queries for Query 1 in Figure 4

Figure 1 shows the pattern table of Query 1 in Figure 4. And Figure 2 shows the final new queries generated for retrieving accessed triple records.

elementID	ID	parentID	Feature	Level	Pattern
0	0	255	UNION	0	{?var0 < http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en } UNION {?var1 < http://dbpedia.org/property/redirect>?var0. ?var1 < http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en }
0	1	0	GROUP	1	{ ?var0 <http: 01="" 2000="" rdf-schema#label="" www.w3.org=""> "Evry"@en }</http:>
0	2	1	BGP	2	?var0 <http: 01="" 2000="" rdf-schema#label="" www.w3.org=""> "Evry"@en</http:>
0	3	0	GROUP	1	{ ?var1 < http://dbpedia.org/property/redirect> ?var0 . ?var1 < http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en }
0	4	3	BGP	2	?var1 <http: dbpedia.org="" property="" redirect=""> ?var0 . ?var1 <http: 01="" 2000="" rdf-schema#label="" www.w3.org=""> "Evry"@en</http:></http:>
1	5	255	OPTIONAL	0	{ ?var0 <http: abstract="" dbpedia.org="" ontology=""> ?var2 }</http:>
1	6	5	GROUP	1	{ ?var0 < http://dbpedia.org/ontology/abstract> ?var2 }
1	7	6	BGP	2	?var0 <http: abstract="" dbpedia.org="" ontology=""> ?var2</http:>
2	8	255	FILTER	0	FILTER langMatches(lang(?var2), "en")

 $\bf Fig.\,1.$  Pattern Table for Query 1 in Fig.4

```
2
select distinct (?var0 AS ?s) (<a href="http://www.w3.org/2000/01/rdf-schema#label">http://www.w3.org/2000/01/rdf-schema#label</a> AS ?p) ("Evry"@en AS ?o)
where
  ?var0 <http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en
 OPTIONAL { ?var0 < http://dbpedia.org/ontology/abstract> ?var2 }
 FILTER langMatches(lang(?var2), "en")
LIMIT 10
T2.
select distinct (?var1 AS ?s) (<a href="http://dbpedia.org/property/redirect">http://dbpedia.org/property/redirect</a> AS ?p) (?var0 AS ?o)
Where
    ?var1 <http://dbpedia.org/property/redirect> ?var0 .
    ?var1 <http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en
   OPTIONAL { ?var0 < http://dbpedia.org/ontology/abstract> ?var2 }
   FILTER langMatches(lang(?var2), "en")
LIMIT 10
select distinct (?var1 AS ?s) (<a href="http://www.w3.org/2000/01/rdf-schema#label">http://www.w3.org/2000/01/rdf-schema#label</a> AS ?p) ("Evry"@en AS ?o)
where
{
   ?var1 <http://dbpedia.org/property/redirect> ?var0 .
   ?var1 <http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en
OPTIONAL { ?var0 < http://dbpedia.org/ontology/abstract> ?var2 }
 FILTER langMatches(lang(?var2), "en")
LIMIT 10
T4.
select distinct (?var0 AS ?s) (<http://dbpedia.org/ontology/abstract> AS ?p) (?var2 AS ?o) where
 { ?var0 < http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en }
 UNION
 { ?var1 < http://dbpedia.org/property/redirect> ?var0 .
   ?var1 <http://www.w3.org/2000/01/rdf-schema#label> "Evry"@en
 OPTIONAL { ?var0 < http://dbpedia.org/ontology/abstract> ?var2 }
FILTER langMatches(lang(?var2), "en")
LIMIT 10
```

Fig. 2. New Queries from Query 1 in Fig.4