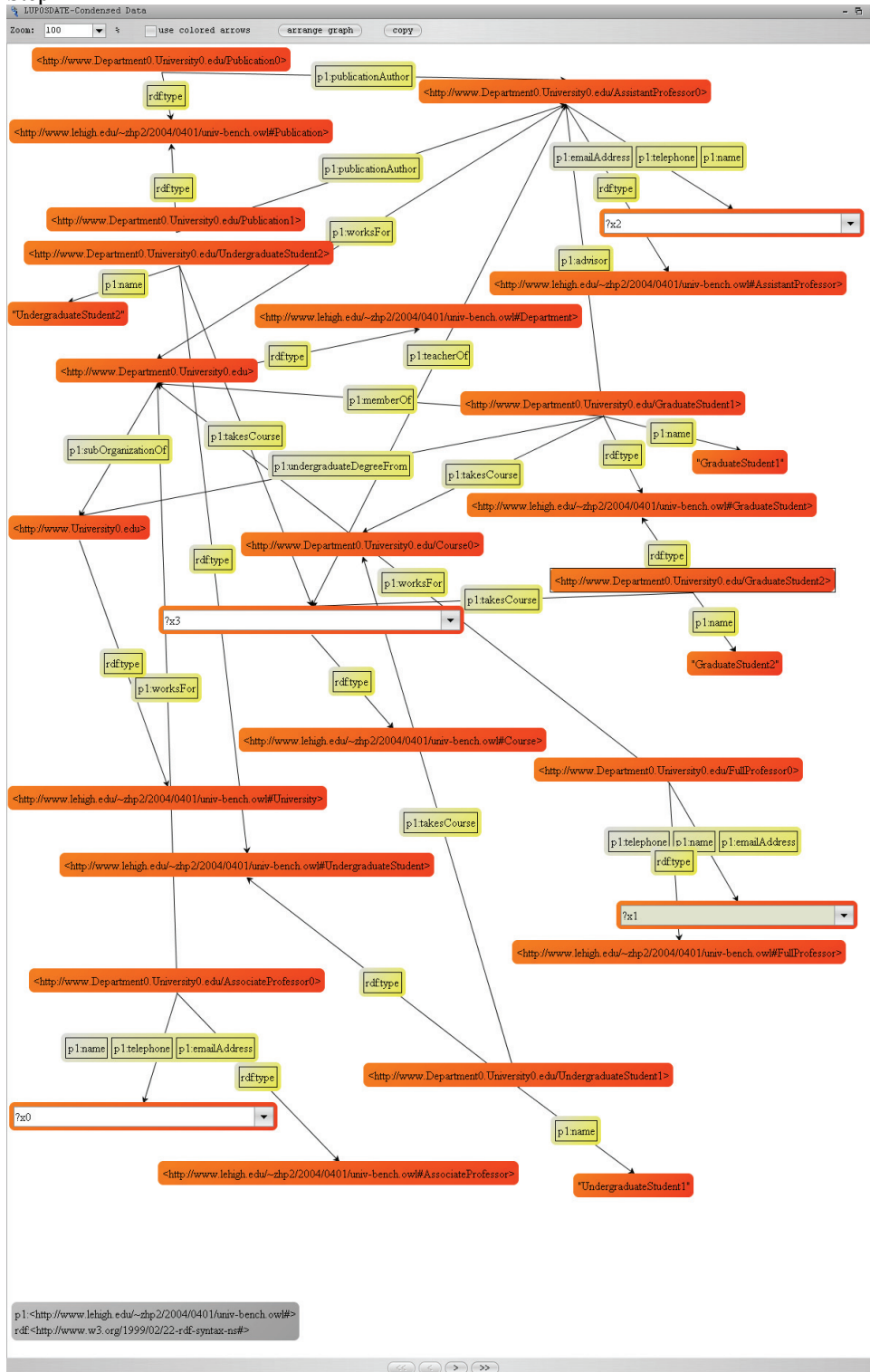


Exercises for the book
Semantic Web Databases
by Sven Groppe

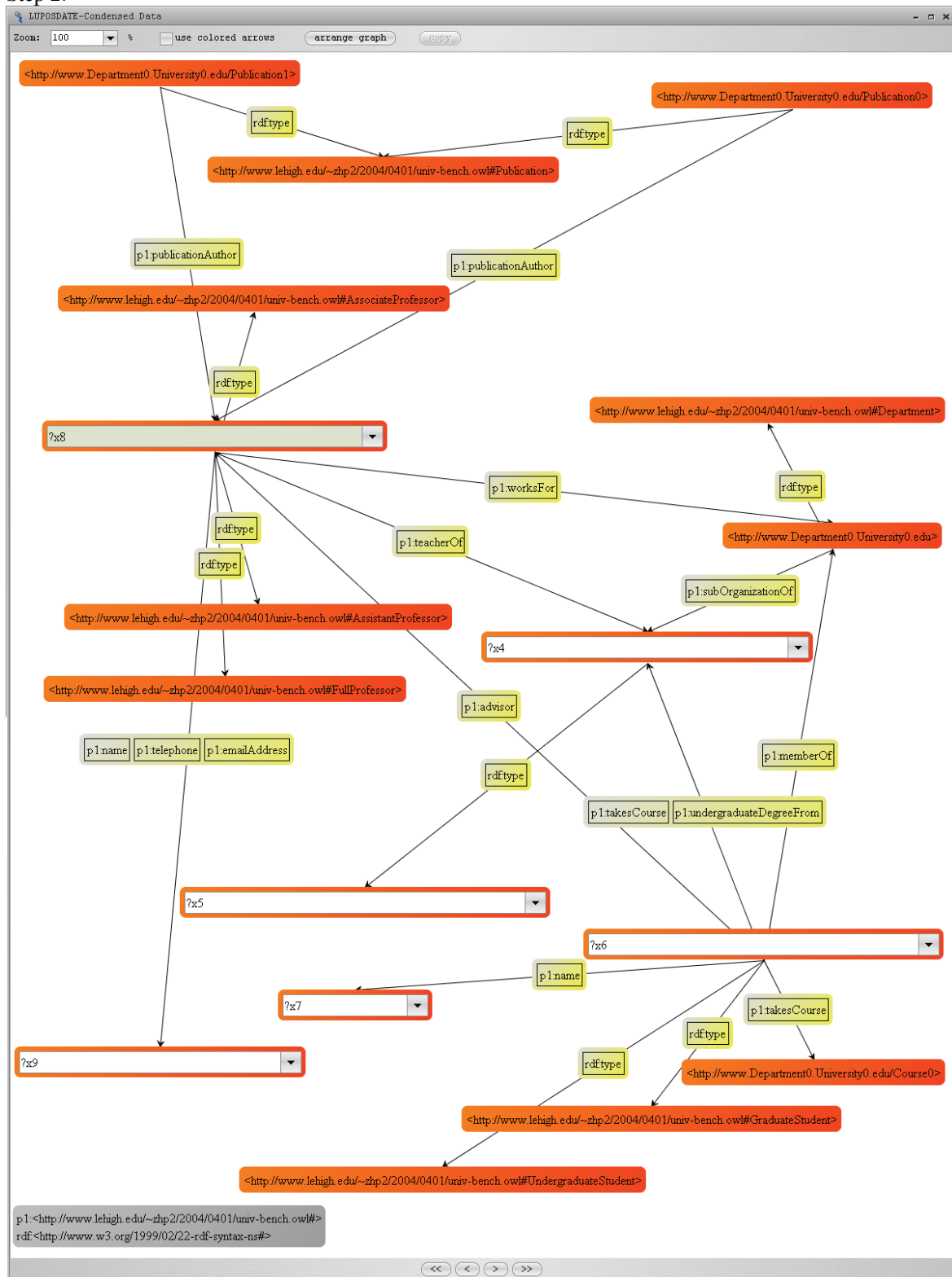
Solutions

Chapter 10 – Visual Query Languages

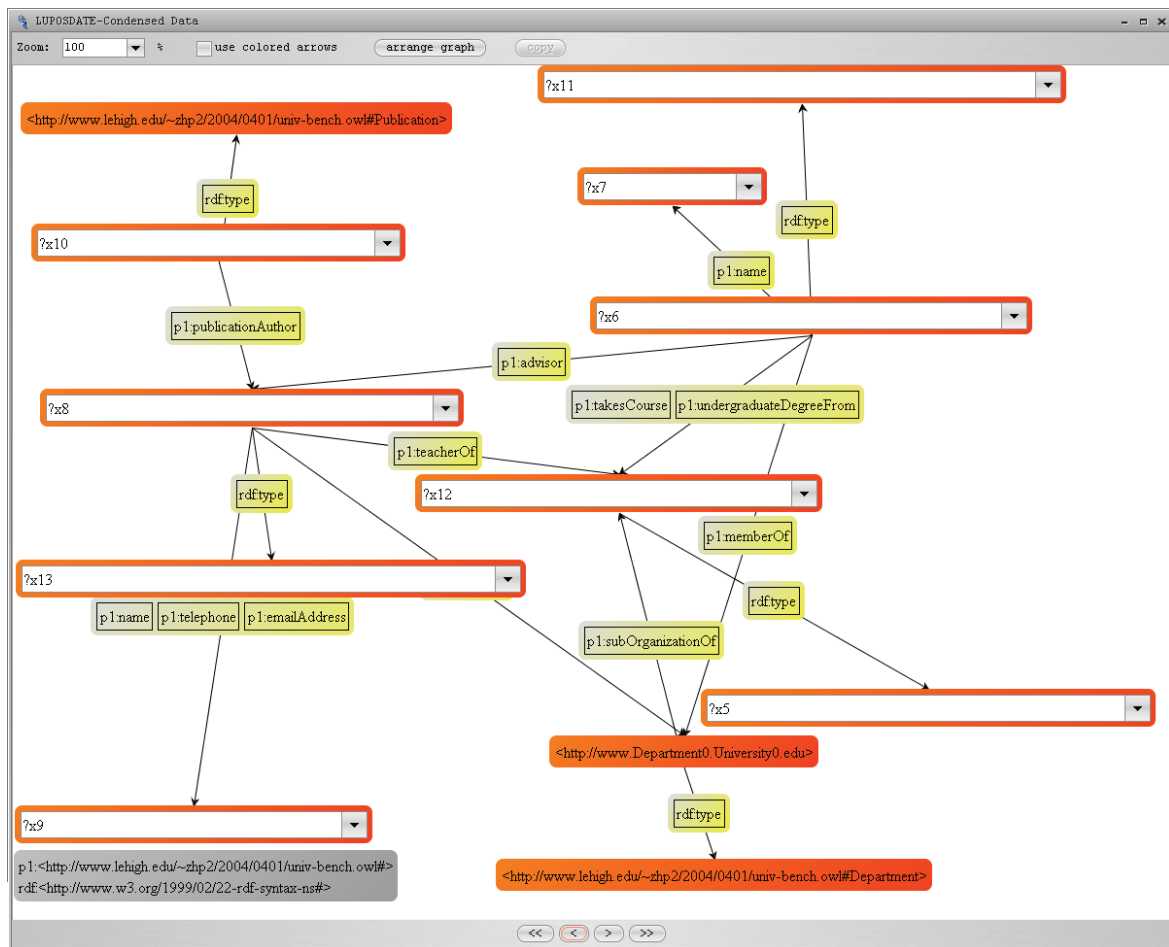
1. Step 1:



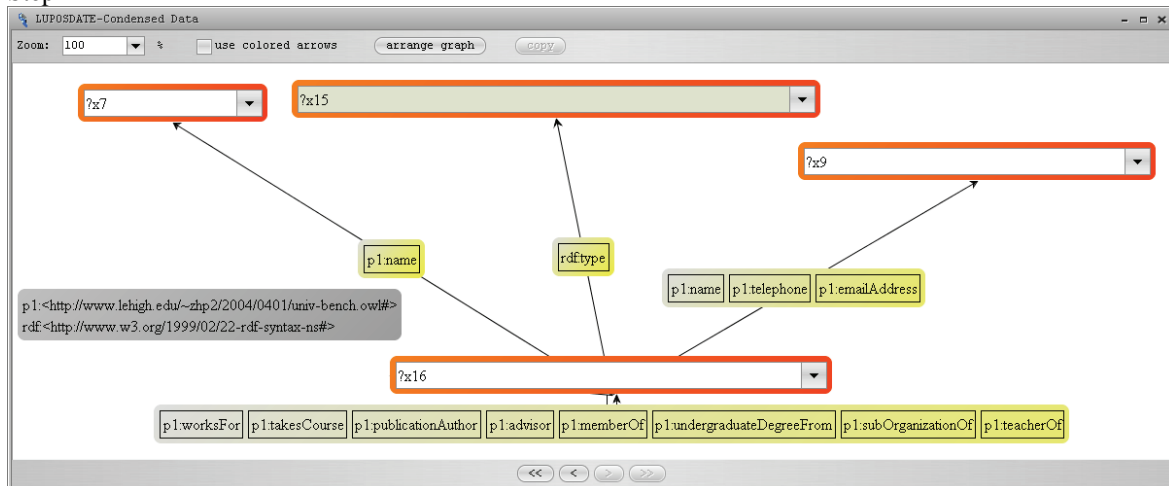
Step 2:



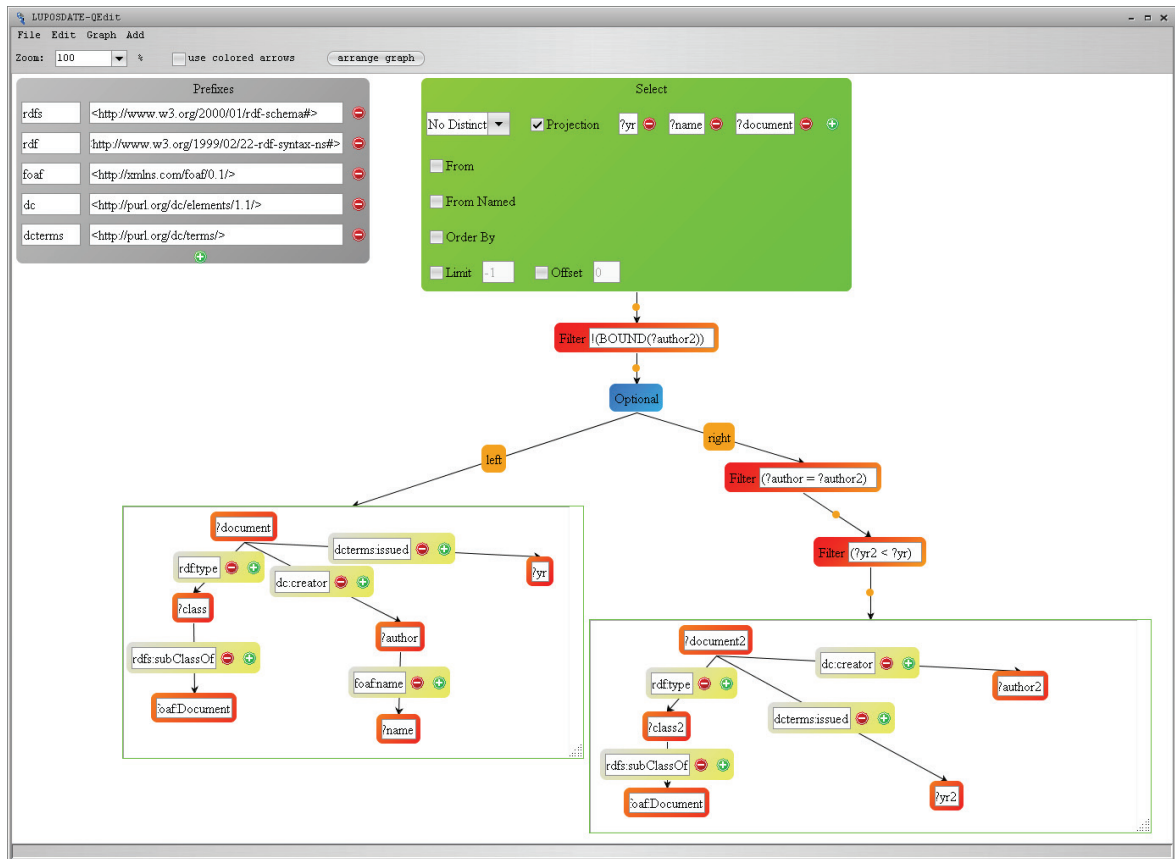
Step 3:



Step 4:



2. We present the visual representation of the given textual SPARQL query in the following figure:



3. The textual SPARQL query transformed from the given visual representation:

```

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>

ASK {
  ?erdoes rdf:type foaf:Person .
  ?erdoes foaf:name "Paul Erdoes"^^xsd:string .
  { ?document dc:creator ?erdoes .
    ?document dc:creator ?author .
    ?document2 dc:creator ?author .
    ?document2 dc:creator ?author2 .
    ?author2 foaf:name ?name
  } UNION {
    ?document dc:creator ?erdoes .
    ?document dc:creator ?author .
    ?author foaf:name ?name
  }
  FILTER ( ?author != ?erdoes && ?document2 != ?document && ?author2 != ?erdoes && ?author2 != ?author )
} UNION {
  ?document dc:creator ?erdoes .
  ?document dc:creator ?author .
  ?author foaf:name ?name
  FILTER ( ?author != ?erdoes )
}

```

4. The suggestion-computing queries are as follows:

```

PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX swrc: <http://swrc.ontoware.org/ontology#>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
PREFIX bench: <http://localhost/vocabulary/bench/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX dcterms: <http://purl.org/dc/terms/>

```

```

SELECT ?inproc ?p ?so
WHERE {
  ?inproc rdf:type bench:Inproceedings .
  ?inproc dc:creator ?author .

```

```
?inproc dc:title ?title .  
?inproc swrc:pages ?page .  
?inproc dcterms:issued ?yr .  
?inproc bench:abstract ?abstract .  
PLACEHOLDER }
```

For the succeeding triple patterns, *PLACEHOLDER* is *?inproc ?p ?so*, for the preceding triple patterns *?so ?p ?inproc*.