- SPARQL selects information by matching graph patterns, and provides facilities for filtering based on both numeric and string comparisons.
- SPARQL queries follow a syntax similar to Turtle.
- Both data and schemas can be queried using SPARQL.
- UNION and OPTIONAL are constructs that allow SPARQL to more easily deal with open world data.
- SPARQL Update provides mechanisms for updating and deleting information from triples stores.

Suggested Reading

ARQ SPARQL Tutorial. http://jena.sourceforge.net/ARQ/Tutorial/.

S. Harris and A. Seaborne, eds. SPARQL 1.1 Query Language. W3C Working Draft (work in progress), 12 May 2011. http://www.w3.org/TR/sparql11-query/.

A. Polleres, P. Gearon, and A. Passant, eds. SPARQL 1.1 Update. W3C Working Draft (work in progress), 12 May 2011. www.w3.org/TR/sparql11-update/.

E. Torres, L. Feigenbaum, and K. Clark, eds. SPARQL Protocol for RDF. W3C Recommendation, 15 January 2008. www.w3.org/TR/rdf-sparql-protocol/.

Exercises and Projects

1. Take one of the queries given in this chapter. Draw a diagram of the underlying data as a graph. Draw a second diagram labeling the variables from the selected query. Can you express the query as a diagram as well?