2. Think about what makes a SPARQL query difficult for a triple store to answer. Discuss what factors play into the difficulty in answering a query.

3. Compare SPARQL and SQL. What are the differences and similarities in the languages?

4. Perform several queries on http://www.dbpedia.org using one of the provided web interfaces to perform the queries: http://dbpedia.org/snorql/ or http://dbpedia.org/sparql. Discuss what is difficult about building the queries.

5. Download and install a triple store. Examples include 4store, Virtuoso, Sesame, and OWLIM. Load RDF available at the book's website (www.semanticwebprimer.ord) and see if you can answer all the queries in this chapter. If the triple store supports reasoning, do the answers to the queries change depending on the results?

6. Discuss how SPARQL uses other web standards (e.g., HTTP).

7. What is the benefit of an ontology in building SPARQL queries?

8. For a larger assignment, work in teams of 2 to 4 to develop a web application. Use an ontology from the previous chapter as its basis. For example, one could develop an apartment or book finding application. Instead of a standard database as data storage, use a triple store. We suggest using the rdfquery javascript library (http://code.google.com/p/rdfquery/) to interact with the triple store from web pages. Also, a PHP (Hypertext Preprocessor) engine such as RAP (http://www4.wiwiss.fu-berlin.de/bizer/rdfapi/) is another option. Once the application is built, write a report identifying the strengths and weaknesses of using both an ontology and a triple store for web applications.