

Foundations of Semantic Web Technologies

Tutorial 9

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Exercise 9.1. Compute the solutions to the expressions from Exercise 8.2 with respect to the knowledge base from Exercise 8.1 step by step.

Exercise 9.2. This exercise focuses on the use of modifiers in SPARQL. Consider the following RDF document:

```
@prefix ex: <http://example.org/> .
ex:a    ex:value  "1"^^xsd:integer ;
        ex:value  "3"^^xsd:integer .
ex:b    ex:value  "2"^^xsd:integer .
```

Which result would each of the following SPARQL queries return for this RDF input?

- (a)

```
SELECT ?s ?v
WHERE { ?s <http://example.org/value> ?v }
ORDER BY ?v
```
- (b)

```
SELECT ?s
WHERE { ?s <http://example.org/value> ?v }
ORDER BY ?v
```
- (c)

```
SELECT ?s
WHERE { ?s <http://example.org/value> ?v }
ORDER BY DESC(?v) LIMIT 2
```
- (d)

```
SELECT DISTINCT ?s
WHERE { ?s <http://example.org/value> ?v }
ORDER BY ?v
```

Which result would you expect the last query to return when `LIMIT 1` is added?