

Semantic Web Engineering

Exercise 1-2 - Resource Description Framework (RDF)

Due: 12:00 am, October 14, 2010

Required Reading: RDF Primer <http://www.w3.org/TR/rdf-primer/>

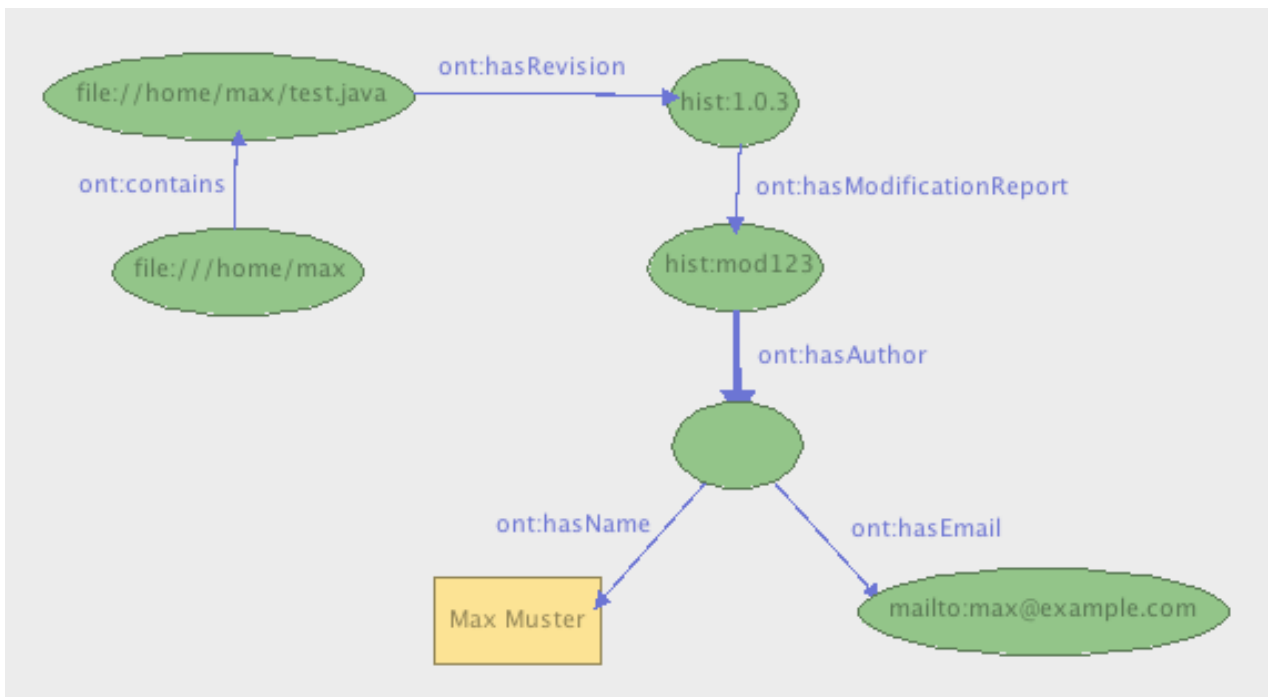
Use the RDF Primer and the lecture slides to answer the following questions. Be prepared to present your solutions in the lecture on October 15, 2010.

1. RDF Serialization

Serialize the RDF graph shown in the picture a) N-Triple Syntax and b) in RDF/XML Syntax.

Use the following namespace definitions:

- dev <http://example.com/developer#>
- hist <http://example.com/history#>
- ont <http://example.com/ont#>



2. RDF Visualization

Visualize the following RDF graph in RDF/XML serialization. Use the full URI for each resource. For predicates you can use namespace abbreviations.

```
<?xml version='1.0'?>
<!DOCTYPE rdf:RDF [<!ENTITY xsd "http://www.w3.org/2001/XMLSchema#">]>
<rdf:RDF
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:extermns="http://example.com/terms#"
  xml:base="http://example.com/uni">
```

```
<exterm:s:Lecture rdf:ID="VO10245">
  <exterm:s:titel rdf:datatype="&xsd:string">
    Semantic Web Engineering
  </exterm:s:titel>
  <exterm:s:room>2.A.10</exterm:s:room>
</exterm:s:Lecture>

<rdf:Description rdf:about="#VO10245">
  <exterm:s:name>
    <rdf:Description>
      <exterm:s:firstName>Gerald</exterm:s:firstName>
      <exterm:s:lastName>Reif</exterm:s:lastName>
    </rdf:Description>
  </exterm:s:name>
</rdf:Description>
</rdf:RDF>
```