Exercise 3 – Discussion on September 29th

Assignment 1: Modeling in RDFS

You are asked to develop an RDF Schema for a library information system. In this system, libraries want to store information about their books, as well as who has lended them. The following information should be expressed:

A library owns books. Libraries have a name, an address, and a phone number. Books have a title, one or more authors, and an ISBN number. Persons have a name, an address, a phone number, and an e-mail address. Books can be borrowed by a person.

Try to reuse existing schemas you find on the web, e.g., FOAF und Dublin Core:
http://xmlns.com/foaf/spec/20100809.rdf
http://dublincore.org/2010/10/11/dctermis.rdf

Assignment 2: Reasoning I

Explain why the penguin on slide 44 is wrong.

Assignment 3: Reasoning II

You are given the following schema:

```
:Person a rdfs:Class .
:Student a rdfs:Class .
:Student rdfs:subClassOf :Person .
:University a rdfs:Class .
:enrolledAt a rdf:Property .
:memberOf a rdf:Property .
:memberOf rdfs:domain :Person .
:memberOf rdfs:range :University .
:enrolledAt rdfs:subPropertyOf :memberOf .
:enrolledAt rdfs:domain :Student .
```

Furthermore, you are given the statement:

```
:Jana :enrolledAt :Uni_Mannheim .
```

Please show how a reasoner would conclude the following statement:

```
:Jana a :Person .
```