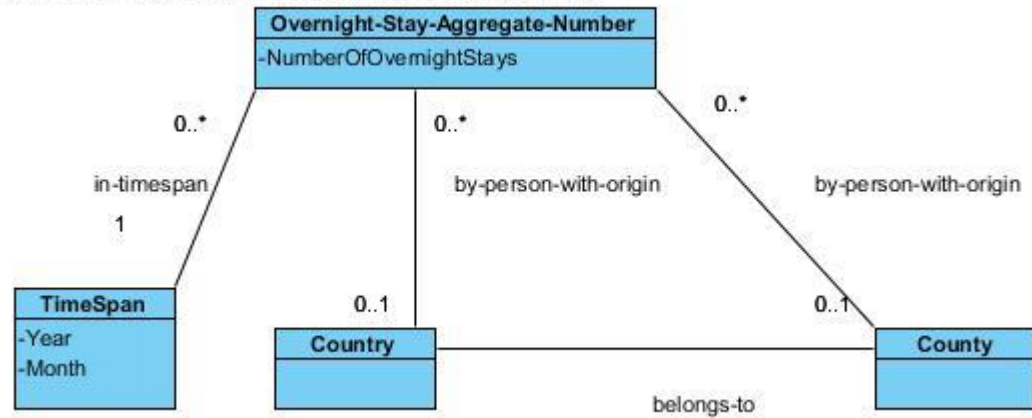


# Exercise 1

Jahr	Monat	Herkunftsland	Naechtigung en
2012	1	Arabische Länder in Asien	74
<b>2012</b>	<b>1</b>	<b>Australien</b>	<b>188</b>
2012	1	Baden- Württemberg	1158
2012	1	Bayern	2699
2012	1	Belgien	180
...	...	...	...

„Triplify“ the highlighted row using the ER model below.

Visual Paradigm for UML Community Edition [not for commercial use]



# Solution 1

Ex:Graz ex:has-overnight-stays \_:B11 .  
\_:B11 ex:NumberOfOvernightStays 188 .  
\_:B11 ex:in-timespan \_:B12.  
\_:B12 ex:Year 2012 .  
\_:B12 ex:Month 1 .  
\_:B11 ex:by-person-with-origin dbpedia:Australia .

## Exercise 2

1. Express in valid RDF/XML (use the [W3C RDF Validator](#) to check your RDF/XML):  
„Viktoria works at the Knowledge Technologies Institute of Graz Univ. of Technology, and her full name is Viktoria Pammer-Schindler.“

2. Which triples are expressed by the following RDF/XML?

```
<?xml version="1.0"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:ex="http://example.org/stuff/1.0/">
  <rdf:Description rdf:about="http://www.w3.org/TR/rdf-syntax-grammar"
    dc:title="RDF/XML Syntax Specification (Revised)">
    <ex:editor>
      <rdf:Description ex:fullName="Dave Beckett"/>
    </ex:editor>
  </rdf:Description>
</rdf:RDF>
```

# Solution 2a

```
<?xml version="1.0"?>
```

```
<rdf:RDF
```

```
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
```

```
  xmlns:dc="http://purl.org/dc/elements/1.1/"
```

```
  xmlns:kti="http://kti.tugraz.at/semweb#">
```

```
  <rdf:Description rdf:about="http://kti.tugraz.at/semweb#ViktoriaPammer">
```

```
    <kti:works-at rdf:resource="http://kti.tugraz.at"/>
```

```
    <kti:fullName>Viktoria Pammer-Schindler</kti:fullName>
```

```
  </rdf:Description>
```

```
</rdf:RDF>
```

## Solution 2b

<http://www.w3.org/TR/rdf-syntax-grammar>

dc:title "RDF/XML Syntax Specification (Revised)" .

<http://www.w3.org/TR/rdf-syntax-grammar> ex:editor \_:db

\_:db ex:fullName „Dave Beckett“

## Exercise 3

1. Find me all the people in Tim Berners-Lee's FOAF file (<http://dig.csail.mit.edu/2008/webdav/timbl/foaf.rdf>) that have names and email addresses. Return each person's URI, name, and email address.  
Hint: Use [Redland Rasqal Demo](#) to test your query.
2. Find out everything about [http://dbpedia.org/resource/Marie\\_Curie](http://dbpedia.org/resource/Marie_Curie) in DBPEDIA. Hint: Use the [DBPEDIA Snorql Explorer](#) to test your queries.
3. Find out all statements that describe [http://dbpedia.org/resource/Marie\\_Curie](http://dbpedia.org/resource/Marie_Curie) (as subject).

## Solution 3.1

```
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT *
FROM
  <http://dig.csail.mit.edu/2008/webdav/timbl/foaf.rdf>
WHERE {
  ?person foaf:name ?name .
  ?person foaf:mbox ?email .
}
```

# Solution 3.2 and 3.3

```
DESCRIBE <http://dbpedia.org/resource/Marie\_Curie>
```

```
SELECT *
```

```
WHERE {<http://dbpedia.org/resource/Marie_Curie> ?p  
      ?o}
```