
Lab 05

Please note:

For the manipulation of a *source.xml* document by the *model.xsl* model you can use the command:

xsltproc model.xsl source.xml > sortie.html (.xml or .txt)

Exercise 01: We consider the following XML document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<biblio>
<livre>
<!-- Élément enfant titre -->
<titre>Les Misérables</titre>
<auteur>Victor Hugo</auteur>
<nb_tomes>3</nb_tomes>
</livre>
<livre>
<titre>L'Assomoir</titre>
<auteur>Émile Zola</auteur>
</livre>
<livre lang="en">
<titre>David Copperfield</titre>
<auteur>Charles Dickens</auteur>
<nb_tomes>3</nb_tomes>
</livre>
</biblio>
```

1. Define a *biblio.xsl* stylesheet to produce the display as follows: title, book names in bold, book elements separated by line breaks, book elements separated by paragraph marks):

Ma Bibliothèque
Titre : Les Misérables Auteur : Victor Hugo Nombre de tomes : 3
Titre : L'Assomoir Auteur : Émile Zola Nombre de tomes :
Titre : David Copperfield Auteur : Charles Dickens Nombre de tomes : 3

2. Define *biblio2.xsl* stylesheet in order to arrange the books in alphabetical order, without displaying the number of volumes when it is not filled in, and indicate when a book is in English. Produce the display as an HTML table as below:

<p>Ma Bibliothèque</p> <p>Titre: David Copperfield Auteur: Charles Dickens Nombre de tomes: 3 <i>Ce livre est en anglais.</i></p> <p>Titre: L'Assomoir Auteur: Émile Zola</p> <p>Titre: Les Misérables Auteur: Victor Hugo Nombre de tomes: 3</p>

3. Define a third stylesheet *biblio3.xsl* to produce the display as an HTML table as below.

Ma bibliotheque

Titre	Auteur	Nombre de tomes	Langue
David Copperfield	Charles Dickens	Nombre de tomes :3	<i>Ce livre est en anglais.</i>
L'Assomoir	Émile Zola	-	-
Les Misérables	Victor Hugo	Nombre de tomes :3	-

Exercise 02:

A set of animals is described in a simplified way using the following format:

```

<animals author="Matthias Colin" date="2011-06-27">
  <mammal name="giraffe" id="a1" locomotion="walks" />
  <mammal name="bear" id="a2" locomotion="walks" >
    <eats ref="a3" />
  </mammal>
  <fish name="salmon" id="a3" locomotion="swims" />
  <mammal name="dolphin" id="a4" locomotion="swim" />
  <bird name="golden eagle" id="a5" locomotion="fly" >
    <eats ref="a7" />
    <eats ref="a8" />
  </bird>
  <reptile name="crocodile" id="a6" locomotion="swim" />
  <reptile name="grass snake" id="a7" locomotion="reptation"/>
  <mammal name="marmot" id="a8" locomotion="walk" />
  <mammal name="lion" locomotion="walk" >
    <eat ref="a1" />
  </mammal>
</animals>

```

This example lists all the categories of animals and means of locomotion provided.

1. Write an XSL template to display the list of animals in an HTML table according to the following model:

Animal	Family	Locomotion	Food
golden eagle	bird	flies	snake , marmot
salmon	fish	swims	
giraffe	mammal	walks	
bear	mammal	walks	salmon
dolphin	mammal	swims	
marmot	mammal	walks	
lion	mammal	walks	giraffe
crocodile	reptile	swims	
snake	reptile	crawls	

2. Write an XSL template to display the list of animals in a XML file according to the following model:

```
<animals>
  <mammal> <name>giraffe</name> </mammal>
  <mammal>v<name>bear</name><eats>salmon</eats></mammal>
<mammal> <name>dolphin</name> </mammal>
<mammal><name>lion</name><eats>giraffe</eats></mammal>
<fish> <name>salmon</name> </fish>
<bird><name>golden eagle</name><eats>grass snake</eats><eats>marmot</eats></bird>
<reptile> <name>crocodile</name> </reptile>
</animals>
```