

Rewriting - XSLT -

February 2022

We want to transform the following `xml` file using `xsl` stylesheets. The stylesheets should be applicable to any `xml` file having the shape below and containing an arbitrary number of albums and collections.

```
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="musique.xsl"?>

<catalog>
  <owner>Vincent Vega</owner>

  <collection>
    <name>Rock</name>
    <album>
      <title>Violet Hill</title>
      <author>Cold Play</author>
      <shop link="http://www.amazon.com">AMAZON</shop>
      <type taille="single">CD</type>
      <price curr="DOL">18 </price>
    </album>
    <album>
      <title>Child in time</title>
      <author>Deep Purple </author>
      <shop link="http://www.fnac.com">FNAC</shop>
      <type taille="longplay">CD</type>
      <price curr="EUR">20 </price>
    </album>
    <album>
      <title>Led Zeppelin </title>
      <author>Led Zeppelin </author>
      <shop link="http://www.amazon.com">AMAZON</shop>
      <type taille="longplay">DVD</type>
      <price curr="EUR">16 </price>
    </album>
  </collection>
```

```

<collection>
<name>Pop</name>
<album>
  <title>Greatest hits</title>
  <author>ABBA</author>
  <shop link="http://www.fnac.com">FNAC</shop>
  <type taille="longplay">CD</type>
  <price curr="EUR">14 </price>
</album>
<album>
  <title>Somebody to love</title>
  <author>Queen</author>
  <shop link="http://www.fnac.com">FNAC</shop>
  <type taille="longplay">CD</type>
  <price curr="EUR">22 </price>
</album>
</collection>
</catalog>

```

Question 1 – Write a stylesheet musique1.xsl to transform this file into an html file displaying all the albums :

Violet Hill - Cold Play
Child in time - Deep Purple
Led Zeppelin - Led Zeppelin
Greatest hits - ABBA
Somebody to love - Queen

which corresponds to an html file of the form :

```

<html>
  <body>
    <B>Violet Hill</B> - Cold Play <br>
    <B>Child in time</B> - Deep Purple <br>
    <B>Led Zeppelin </B> - Led Zeppelin <br>
    <B>Greatest hits</B> - ABBA <br>
    <B>Somebody to love</B> - Queen <br>
  </body>
</html>

```

Question 2 – Write a stylesheet musique2.xsl to transform the xml file into an html file displaying all the albums by collection in a numbered list format and with more information. In particular, the name of the shop should be a reference towards the corresponding website. The output for our example should be :

Vincent Vega's albums

Rock

1/3) Violet Hill - Cold Play: (CD - Rock) at [AMAZON](#) : 18 DOL
2/3) Child in time - Deep Purple : (CD - Rock) at [FNAC](#) : 20 EUR
3/3) Led Zeppelin - Led Zeppelin : (DVD - Rock) at [AMAZON](#) : 16 EUR

Pop

1/2) Greatest hits - ABBA: (CD - Pop) at [FNAC](#) : 14 EUR
2/2) Somebody to love - Queen: (CD - Pop) at [FNAC](#) : 22 EUR

which corresponds to an html file of the form :

```
<html>
  <body>
    <hr>Vincent Vega's albums  <br><hr>
    <B>Rock</B><br>
    1/3) Violet Hill - Cold Play: (CD - Rock)
        at <a href="http://www.amazon.com">AMAZON</a>: 18 DOL<br>
    2/3) Child in time - ...
    ...
  </body>
</html>
```

Question 3 – Write now a stylesheet musique3.xsl which prints the albums using two formats : one raw with extended information and one by collection. For both listings the singles should be listed in bold. Moreover, at the beginning we should have the number of singles and longplays indicated. The output for our example should be :

Vincent Vega's albums (1 single(s), 4 longplay(s))

1/5) **Violet Hill - Cold Play: (CD - Rock)** at [AMAZON](#) : 18 DOL
2/5) Child in time - Deep Purple : (CD - Rock) at [FNAC](#) : 20 EUR
3/5) Led Zeppelin - Led Zeppelin : (DVD - Rock) at [AMAZON](#) : 16 EUR
4/5) Greatest hits - ABBA: (CD - Pop) at [FNAC](#) : 14 EUR
5/6) Somebody to love - Queen: (CD - Pop) at [FNAC](#) : 22 EUR

Rock

Violet Hill / Cold Play

Child in time / Deep Purple
Led Zeppelin / Led Zeppelin

Pop

Greatest hits / ABBA
Somebody to love / Queen

Question 4 – Add the necessary instructions in a stylesheet musique4.xsl to provide some statistical information in the resulting html. The final result should have the form :

Vincent Vega's albums (1 single(s), 4 longplay(s))

1/5) **Violet Hill - Cold Play: (CD - Rock)** at [AMAZON](#) : 18 DOL
2/5) Child in time - Deep Purple : (CD - Rock) at [FNAC](#) : 20 EUR
3/5) Led Zeppelin - Led Zeppelin : (DVD - Rock) at [AMAZON](#) : 16 EUR
4/5) Greatest hits - ABBA: (CD - Pop) at [FNAC](#) : 14 EUR
5/6) Somebody to love - Queen: (CD - Pop) at [FNAC](#) : 22 EUR

Rock

Violet Hill / Cold Play

Child in time / Deep Purple

Led Zeppelin / Led Zeppelin

Pop

Greatest hits / ABBA

Somebody to love / Queen

Average price: 18

Cheapest:

Greatest hits

Same shop with the cheapest:

Child in time

Greatest hits

Somebody to love
