

CSC343 Worksheet 11 Solution

June 30, 2020

```
1. a) 1 <? xml version = "1.0" encoding = "utf-8"?>
2 <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/ISL/Transform
3 ">
4 <xsl:template match = "/">
5 <html>
6 <BODY>
7 <H1>Manufacturerers</h1>
8 <OL>
9 <xsl:for-each select="Products/Maker">
10 <Li><xsl:value-of select="@name"/></li>
11 </xsl:for-each>
12 </ol>
13 </body>
14 </html>
15 </xsl:template>
16 </xsl:stylesheet>
```

Notes:

- XLST
 - Also means **Extensible Stylesheet Language for Transformation**
 - Allows to transform XML documents into HTML
 - Is another language
- XLST Basics

Syntax:

```
<? xml version = "1.0" encoding = "utf-8"?>
<xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/ISL/Transform">
...
</xsl:stylesheet>
```

- Templates

Example:

```

1  <? xml version = "1.0" encoding = "utf-8"?>
2  <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/XSL/Transform">
3      <xsl:template match = "/">
4          <HTML>
5              <BODY>
6                  <B>This is text</b>
7              </body>
8          </html>
9      </xsl:template>
10 </xsl:stylesheet>
11

```

- Obtaining values from XML Data

- value-of

- * Is used to extract the value of a selected node.

- * **Syntax:** <xsl value-of select = "*expression*" />

Example:

```

1  <? xml version = "1.0" encoding = "utf-8"?>
2  <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/XSL/Transform">
3      <xsl:template match="/Movies/Movie">
4          <xsl:value-of select = "@title"/>
5      </xsl:template>
6  </xsl:stylesheet>
7

```

- Apply-templates

- * applies a <xsl:template> to the current element or to the current element's child nodes.

- select='.' means choose the current value

```

<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:template match="/*">
<html>
<body>
<h2>My CD Collection</h2>
<xsl:apply-templates/>
</body>
</html>
</xsl:template>

<xsl:template match="cd">
<p>
<xsl:apply-templates select="title"/>
<xsl:apply-templates select="artist"/>
</p>
</xsl:template>

<xsl:template match="title">
Title: <span style="color:#ff0000">
<xsl:value-of select="."/></span>
<br />
</xsl:template>

<xsl:template match="artist">
Artist: <span style="color:#00ff00">
<xsl:value-of select="."/></span>
<br />
</xsl:template>

</xsl:stylesheet>

```

My CD Collection

Title: Empire Burlesque
Artist: Bob Dylan

Title: Hide your heart
Artist: Bonnie Tyler

Title: Greatest Hits
Artist: Dolly Parton

Title: Still got the blues
Artist: Gary Moore

Title: Eros
Artist: Eros Ramazzotti

Title: One night only
Artist: Bee Gees

Title: Sylvias Mother
Artist: Dr.Hook

Title: Maggie May
Artist: Rod Stewart

Title: Romanza
Artist: Andrea Bocelli

Title: When a man loves a woman
Artist: Percy Sledge

Title: Black angel
Artist: Savage Rose

Title: 1999 Grammy Nominees
Artist: Many

Title: For the good times
Artist: Kenny Rogers

- For-loop in XSLT


- * **Syntax:** <xsl:for-each select = "*expression*" > ... </xsl:for-each>

* Is easier to maintain and read than apply templates ^[1]

```

1)  <? xml version = "1.0" encoding = "utf-8" ?>
2)  <xsl:stylesheet xmlns:xsl =
3)      "http://www.w3.org/1999/XSL/Transform">
4)      <xsl:template match = "/">
5)          <OL>
6)              <xsl:for-each select = "Stars/Star" />
7)                  <LI>
8)                      <xsl:value-of select = "Name">
9)                          </li>
10)                 </xsl:for-each>
11)                 </ol><p><ol>
12)                 <xsl:for-each select = "Stars/Star/Address" />
13)                     <LI>
14)                         <xsl:value-of select = "City">
15)                             </li>
16)                     </xsl:for-each>
17)                 </ol>
18)             </xsl:template>
19) </xsl:stylesheet>

```



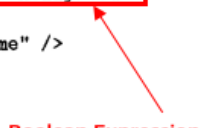
References:

- 1) StackOverflow, differences between for-each and templates in xsl?, link
- If condition in XSLT
 - **Syntax:** <xsl:if test = "*boolean expression*">

```

1)  <? xml version = "1.0" encoding = "utf-8" ?>
2)  <xsl:stylesheet xmlns:xsl =
3)      "http://www.w3.org/1999/XSL/Transform">
4)      <xsl:template match = "/">
5)          <TABLE border = "5"><TR><TH>Stars</th></tr>
6)              <xsl:for-each select = "Stars/Star" />
7)                  <xsl:if test = "Address/City = 'Hollywood'">
8)                      <TR><TD>
9)                          <xsl:value-of select = "Name" />
10)                             </td></tr>
11)                  </xsl:if>
12)              </xsl:for-each>
13)          </table>
14)      </xsl:template>
15) </xsl:stylesheet>

```



```

b)  <? xml version = "1.0" encoding = "utf-8"?>
2  <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/XSL/Transform
">
3      <xsl:template match = "/">
4          <html>
5              <BODY>
6                  <TABLE>
7                      <TH>
8                          <TD>Model</td>
9                          <TD>Price</td>
10                     </th>
11                     <xsl:for-each select="Products/Maker">
12                         <TR>
13                             <TD>
14                                 <xsl:value-of select="@model"/>
15                             </td>

```

```

16         <TD>
17             <xsl:value-of select="@price"/>
18         </td>
19     </tr>
20 </xsl:for-each>
21 </table>
22 </body>
23 </html>
24 </xsl:template>
25 </xsl:stylesheet>
26

```

c)

```

1  <? xml version = "1.0" encoding = "utf-8"?>
2  <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/ISL/Transform
3  ">
4      <xsl:template match = "/">
5          <html>
6              <BODY>
7                  <xsl:for-each select="Products/Maker/Laptop">
8                      <TABLE>
9                          <TH>
10                             <TD>Model</td>
11                             <TD>Price</td>
12                             <TD>Speed</td>
13                             <TD>RAM</td>
14                         </th>
15                         <xsl:for-each select="Products/Maker/Laptop">
16                             <TR>
17                                 <TD><xsl:
18                                     </tr>
19                             </xsl:for-each>
20                         </table>
21
22                     <xsl:for-each select="Products/Maker">
23                         <xsl:if test="PC">
24                             <TABLE>
25                                 <TH>
26                                     <TD>Model</td>
27                                     <TD>Price</td>
28                                     <TD>Speed</td>
29                                     <TD>RAM</td>
30                                 </th>
31                             </table>
32                         </xsl:if>
33
34                     </xsl:for-each>
35                 </body>
36             </html>
37         </xsl:template>
38     </xsl:stylesheet>
39

```