

Lab 10 – XPath and XSLT

Create a new folder 'lab10' folder on the cmslamp server
Save today's work in this lab10 folder.

Tasks (10 marks)

The following files constitute a simple system to store and query some data about course lecturerships.

*The code given above has several sections in bold **red**. Your task is to do what is requested and then test run your code on cmslamp server.*

lecturers.htm

<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Course Lecturers</title>
<script type="text/javascript" src="lecturers.js"></script>
</head>
<body>
<form>
<input type = "button" id="butt1" value = "Press for Results" />
</form>
<script type="text/javascript">
(1) WRITE CODE HERE THAT SPECIFIES FUNCTION getResult AS
THE
EVENT HANDLER FOR THE onclick EVENT FOR THE BUTTON
DEFINED
IN THE FORM
</script>

</body>
</html>

lecturers.xml

<?xml version="1.0" encoding="iso-8859-1"?>
<Courses>
<Course>
<title>Web Development</title>
<lecturer>Jian Yu</lecturer>
<moderator>Gary Snail</moderator>
<points>25</points>
<group>SCCRL</group>
<Faculty>DCT</Faculty>
</Course>
<Course>
<title>Software Development in Java</title>
<lecturer>SpongeBob SquarePants</lecturer>
<moderator>Patrick Star</moderator>
<points>25</points>
<group>SCCRL</group>
<Faculty>DCT</Faculty>
</Course>

<Course>
<title>Financial Accounting</title>
<lecturer>Squidward Tentacles</lecturer>
<moderator>Mr Crab</moderator>
<points>10</points>
<group>KEDRI</group>
<Faculty>DCT</Faculty>
<Course>
<title>IS Project</title>
<lecturer>Plankton</lecturer>
<moderator>Sandy Cheeks</moderator>
<points>30</points>
<group>IS</group>
<Faculty>DCT</Faculty>
</Course>
</Course>
</Courses>

lecturers.js

(2) WRITE CODE HERE TO CREATE AN XMLHttpRequest object

```
function getResults(){
    xhr.open("GET", "lecturers.php?id=" + Number(new Date), true);
    xhr.onreadystatechange = getData;
    xhr.send(null);
}
```

(3) CHANGE THE CODE HERE TO USE THE POST PROTOCOL

```
}
```

```
function getData ()
{
    if ((xhr.readyState == 4) &&(xhr.status == 200))
    {
```

(4) WRITE CODE HERE TO WRITE THE HTML THAT COMES FROM THE SERVER

INTO THE SPAN WITH id "results" in the HTML document

```
    }
```

```
}
```

lecturers.xml

<?xml version="1.0"?><!-- DWXMLSource="results.xml" -->
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="html"/>
<xsl:template match="/">
<HTML>
<HEAD>
<TITLE> Courses</TITLE>
</HEAD>
<BODY>
Courses with More than 15 Credit Points :
(5) IN HERE WRITE XSL THAT WILL GET THE FACULTY, GROUP AND TITLE OF
ALL COURSES WITH MORE THAN 15 CREDIT POINTS
<i>Hint: use <xsl:for-each> element and use predicate [points > 15]</i>

Number of Courses Offered by CSSE :
(6) IN HERE WRITE XSL THAT WILL WRITE THE NUMBER OF COURSES FOR THE SCCRL GROUP
<i>Hint: use <xsl:value-of> element, and use count() function and predicate [group='SCCRL']</i>
</BODY>
</HTML>
</xsl:template>
</xsl:stylesheet>

lecturers.php

<?php
\$xmlDoc = new DomDocument;
\$xmlDoc->load("lecturers.xml");
\$xslDoc = new DomDocument;
\$xslDoc->load("lecturers.xml");
\$proc = new XSLTProcessor;
\$proc->importStyleSheet(\$xslDoc);
echo \$proc->transformToXML(\$xmlDoc);
?>