Internet and Web Programming
CSE3002
Fall Semester 2020-21

Lab Assignment 9

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Question:

Write a program to demonstrate the concept of data storage and parsing in XML

Develop a thesaurus tool by creating a schema for thesaurus. When a word is entered the synonyms or antonyms must be displayed based on the user request.

Code:

`thesaurus.xsl`

```
<?xml version="1.0"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">
<xsl:output method="html"/>
<xsl:template match="/">
<html>
<head>
<title> thesaurus.xsl</title>
</head>
<body>
<form method="post" action="">
<table>
<tr>
<td>Enter word:</td>
<td><input type="text" id="search"/></td>
<td><input type="submit" id="submit" value="Submit"/></td>
</tr>
<xsl:for-each select="thesaurus/word">
<xsl:if test="@content='Smart'">
<tr>
<td>
<xsl:value-of select="synonyms"/>
</td>
</tr>
</xsl:if>
</xsl:for-each>
</table>
</form>
```

```
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

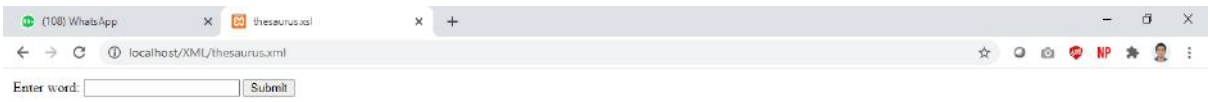
thesaurus.xml

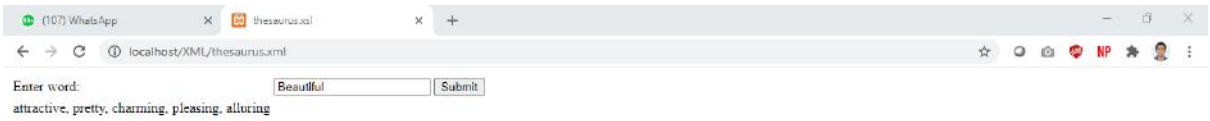
```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="thesaurus.xsl"?>
<thesaurus>

<word content="Beautiful">

<synonyms>attractive, pretty, charming, pleasing, alluring</synonyms> </word>

<word content="Dumb">

<synonyms>stupid, dumbo</synonyms>

</word>

</thesaurus>
```

thesaurus.dtd

```
</xsl:template>

</xsl:stylesheet>

<?xml version='1.0' encoding='UTF-8'?>

<!ELEMENT thesaurus (word)*>

<!ELEMENT word (synonyms)*>

<!ATTLIST word

content CDATA #IMPLIED

>

<!ELEMENT synonyms (#PCDATA)>
```

Output:


(108) WhatsApp
thesaurus.xsl
localhost/XML/thesaurus.xml
Enter word:
Submit


(107) WhatsApp
thesaurus.xsl
localhost/XML/thesaurus.xml
Enter word:
Beautiful
Submit
attractive, pretty, charming, pleasing, alluring

Question:

XSLT – Create a student mark maintenance system using XML. Create a webpage to display all the students consolidated mark statement with pass (green color) or fail (red color) using XSLT.

Code:

`sr.xml`

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="sr.xsl"?>
<sr>
<student>
<n>Ishaan Ohri</n>
<m>100</m>
<res>PASS-Distinction</res>
</student>
<student>
<n>Shreya Basu</n>
<m>70</m>
<res>PASS-Very Good</res>
</student>
<student>
<n>Siddhant Sharda</n>
<m>01</m>
<res>FAIL-Better luck next time</res>
</student>
<student>
<n>Gurprasad Singh</n>
<m>88</m>
<res>PASS-Very good ,keep it up</res>
</student>
<student>
<n>Shivam Anand</n>
<m>33</m>
<res>FAIL-Better luck next time</res>
</student>
<student>
<n>Sameer Rupani</n>
<m>80</m>
<res>PASS-Very good ,keep it up</res>
</student>
<student>
<n>Rupin Singh</n>
<m>78</m>
<res>PASS-Very Good</res>
</student>
<student>
<n>Riya</n>
<m>50</m>
```

```
<res>PASS- Can do better</res>
</student>
</sr>
```

sr.xsl

```
<?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>
<h1 align="center"> STUDENTS' RESULT RECORD</h1>
<table border="4" align="center" width="500px" height="400px">
<tr>
<th>Name</th>
<th>Marks</th>
<th>Result</th>
</tr>
<xsl:for-each select="sr/student">
<xsl:if test = "m > 40">
<tr bgcolor = "green" align="center">
<td><xsl:value-of select="n"/></td>
<td><xsl:value-of select="m"/></td>
<td><xsl:value-of select="res"/></td>
</tr>
</xsl:if>
<xsl:if test = "m &lt; 40">
<tr bgcolor = "red" align="center">
<td><xsl:value-of select="n"/></td>
<td><xsl:value-of select="m"/></td>
<td><xsl:value-of select="res"/></td>
</tr>
</xsl:if>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

Output:

STUDENTS' RESULT RECORD

Name	Marks	Result
Ishaan Ohri	100	PASS-Distinction
Shreya Basu	70	PASS-Very Good
Siddhant Sharda	01	FAIL-Better luck next time
Gurprasad Singh	88	PASS-Very good ,keep it up
Shivam Anand	33	FAIL-Better luck next time
Sameer Rupani	80	PASS-Very good ,keep it up
Rupin Singh	78	PASS-Very Good
Riya	50	PASS- Can do better