**Fifth Semester, 2020-2021 (Odd Semester)**



**DEPARTMENT OF COMPUTER ENGINEERING**

## CSL504 Web Design Lab

**Name of Student : Ambar Jha**

**Roll No. : 18**

**Division : TE - CMPN**

**Batch : B1**

**Day / Session : Thursday / Afternoon**

**Venue : Google Meet**

## **Experiment No. : 7**

**Title of Experiment : Develop XML web page using DTD, XSL**

**Date of Conduction :**

## **Date of Submission :**

|  |  |  |
| --- | --- | --- |
| **Particulars Max. Marks Marks Obtained** | | |
| Preparedness and Efforts(PE) | **3** |  |
| Knowledge of tools(KT) | **3** |  |
| Debugging and results(DR) | **3** |  |
| Documentation(DN) | **3** |  |
| Punctuality & Lab Ethics(PL) | **3** |  |
| **Total** | **15** |  |
|  |  |  |

**Grades – Meet Expectations (3 Marks), Moderate Expectations (2 Marks), Below Expectations (1 Mark)**

## Checked and Verified by

**Name of Faculty : Pravin Jangid**

**Signature :**

**Date :**

**EXPERIMENT NO.7**

**Develop XML web page using DTD, XSL**

**Aim:** To create XML web page using DTD and XSLT

**Theory:**

XML stands for eXtensible Markup Language. XML was designed to store and transport data. XML was designed to be both human- and machine-readable.

A DTD is a Document Type Definition. A DTD defines the structure and the legal elements and attributes of an XML document. With a DTD, independent groups of people can agree on a standard DTD for interchanging data. An application can use a DTD to verify that XML data is valid.

XSLT (eXtensible Stylesheet Language Transformations) is the recommended style sheet language for XML. XSLT is far more sophisticated than CSS. With XSLT you can add/remove elements and attributes to or from the output file. You can also rearrange and sort elements, perform tests and make decisions about which elements to hide and display, and a lot more. XSLT uses XPath to find information in an XML document.

**Sample Code with output:**

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

<note>

<to>Tove</to>

<from>Jani</from>

<heading>Reminder</heading>

<body>Don't forget me this weekend!</body>

</note>

Display the XML file:

<note>

<to>Tove</to>

<from>Jani</from>

<heading>Reminder</heading>

<body>Don't forget me this weekend!</body>

</note>

TV Schedule DTD:

<!DOCTYPE TVSCHEDULE [

<!ELEMENT TVSCHEDULE (CHANNEL+)>

<!ELEMENT CHANNEL (BANNER,DAY+)>

<!ELEMENT BANNER (#PCDATA)>

<!ELEMENT DAY (DATE,(HOLIDAY|PROGRAMSLOT+)+)>

<!ELEMENT HOLIDAY (#PCDATA)>

<!ELEMENT DATE (#PCDATA)>

<!ELEMENT PROGRAMSLOT (TIME,TITLE,DESCRIPTION?)>

<!ELEMENT TIME (#PCDATA)>

<!ELEMENT TITLE (#PCDATA)>

<!ELEMENT DESCRIPTION (#PCDATA)>

<!ATTLIST TVSCHEDULE NAME CDATA #REQUIRED>

<!ATTLIST CHANNEL CHAN CDATA #REQUIRED>

<!ATTLIST PROGRAMSLOT VTR CDATA #IMPLIED>

<!ATTLIST TITLE RATING CDATA #IMPLIED>

<!ATTLIST TITLE LANGUAGE CDATA #IMPLIED>

]>

**My Program:**

1. **XML:**

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

<!DOCTYPE note SYSTEM "Note.dtd">

<?xml-stylesheet type="text/xsl" href="index.xsl"?>

<STUDENT\_DATABASE>

<details>

<name>Student-A</name>

<roll-no>1</roll-no>

<email>studentA@gmail.com</email>

<age>20</age>

</details>

<details>

<name>Student-B</name>

<roll-no>2</roll-no>

<email>studentB@gmail.com</email>

<age>21</age>

</details>

<details>

<name>Student-C</name>

<roll-no>3</roll-no>

<email>studentC@gmail.com</email>

<age>22</age>

</details>

<details>

<name>Student-D</name>

<roll-no>4</roll-no>

<email>studentD@gmail.com</email>

<age>23</age>

</details>

</STUDENT\_DATABASE>

1. **DTD:**

<!DOCTYPE note

[

<!ELEMENT note (details,name,roll-no,email,age,body)>

<!ELEMENT details (#PCDATA)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT roll-no (#PCDATA)>

<!ELEMENT email (#PCDATA)>

<!ELEMENT age (#PCDATA)>

]>

1. **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 style="background:#333; color:White; padding:10px; ">

<h1 style="color:tomato; margin:40px; padding:10px;

position:absolute; top:5%; left:35%;">STUDENT\_DATABASE</h1>

<table border="1" style="border:2px solid white;

padding:10px; width:700px;height:400px; position:absolute;

top: 23%; left:25%; padding:10px; text-align:center;">

<tr>

<th>NAME</th>

<th>ROLL-NO</th>

<th>EMAIL</th>

<th>AGE</th>

</tr>

<xsl:for-each select="STUDENT\_DATABASE/details">

<tr>

<td><xsl:value-of select="name"></xsl:value-of></td>

<td><xsl:value-of select="roll-no"></xsl:value-of></td>

<td><xsl:value-of select="email"></xsl:value-of></td>

<td><xsl:value-of select="age"></xsl:value-of></td>

</tr>

</xsl:for-each>

</table>

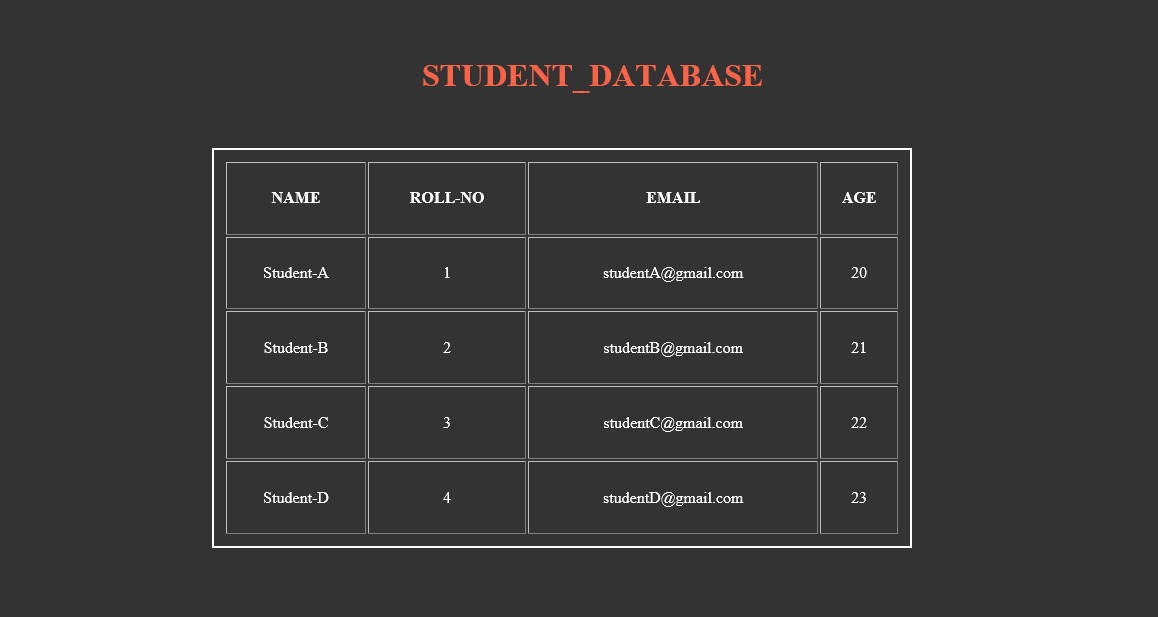
</body>

</html>

</xsl:template>

</xsl:stylesheet>

**My OUTPUT:**

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