Internet and Web Programming

(CSE – 3002)

LAB ASSESSMENT – 5

Name: **Vibhu Kumar Singh**

Reg. No: **19BCE0215**

Teacher: **Ms. Nalini N.**

Activity 3

1. **Design an XML document to store information about a student in an engineering college affiliated to VIT University. The information must include Reg. No, Student Name, Name of the College, Branch, Course, Year of Joining, Email id, CGPA, No. of course registered and No. of credits earned. Make up sample data for 10 students. Design the corresponding DTD and Schema for XML and (i)Write XSL for display the information in sorted order based on college name (ii) Write XSL for display the student details whose CGPA between 7.5 and 8.5.**

student.xml

```
<?xml version="1.0" encoding="utf-8"?>
<?xml-stylesheet type="text/xsl" href="student.xsl"?>
<STUDENTS>
    <STUDENT>
        <REGID>19BCE0215</REGID>
        <NAME>Vibhu Kumar Singh</NAME>
        <COLLEGE>SCOPE</COLLEGE>
        <BRANCH>Computer Science and Engineering</BRANCH>
        <YEAR>2019</YEAR>
        <EMAILID>vibhukumar.singh2019@vitstudent.ac.in</EMAILID>
        <CGPA>8.84</CGPA>
        <COURSES>7</COURSES>
        <CREDITS>24</CREDITS>
    </STUDENT>
    <STUDENT>
        <REGID>19BCE0634</REGID>
        <NAME>Avnish Tiwari</NAME>
        <COLLEGE>SCOPE</COLLEGE>
        <BRANCH>Computer Science and Engineering</BRANCH>
        <YEAR>2019</YEAR>
        <EMAILID>avnish.tiwari2019@vitstudent.ac.in</EMAILID>
        <CGPA>8.67</CGPA>
        <COURSES>6</COURSES>
        <CREDITS>20</CREDITS>
    </STUDENT>
    <STUDENT>
        <REGID>19BCE0033</REGID>
        <NAME>Atishay Jain</NAME>
        <COLLEGE>SCOPE</COLLEGE>
        <BRANCH>Computer Science and Engineering</BRANCH>
        <YEAR>2019</YEAR>
        <EMAILID>atishay.jain2019@vitstudent.ac.in</EMAILID>
        <CGPA>8.75</CGPA>
        <COURSES>7</COURSES>
        <CREDITS>23</CREDITS>
    </STUDENT>
    <STUDENT>
        <REGID>19BCE0011</REGID>
        <NAME>Mohit Kumar</NAME>
        <COLLEGE>SCOPE</COLLEGE>
        <BRANCH>Computer Science and Engineering</BRANCH>
        <YEAR>2019</YEAR>
        <EMAILID>mohit.kumar2019@vitstudent.ac.in</EMAILID>
```

```xml
            <CGPA>7.85</CGPA>
            <COURSES>5</COURSES>
            <CREDITS>20</CREDITS>
        </STUDENT>
        <STUDENT>
            <REGID>19BCE0067</REGID>
            <NAME>Mayank Raj Anand</NAME>
            <COLLEGE>SCOPE</COLLEGE>
            <BRANCH>Computer Science and Engineering</BRANCH>
            <YEAR>2019</YEAR>
            <EMAILID>mayank.raj2019@vitstudent.ac.in</EMAILID>
            <CGPA>8.45</CGPA>
            <COURSES>7</COURSES>
            <CREDITS>24</CREDITS>
        </STUDENT>
</STUDENTS>
```

student.xsl:

```xml
<?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>
            <head>
                <style>
                    table,th,td
                    {
                        border:1px solid black;
                        border-collapse:collapse;
                    text-align: center;
                    padding: 2px;
                    }
                    th
                    {
                    color: white;
                        background-color:blue;
                    }
                </style>
            </head>
            <body>
                <h1>VIT Student Details - IWP DA5</h1>
                <h3>sorted order based on college name</h3>
                <table>
                    <tr>
                        <th> REGID </th>
                        <th> NAME </th>
                        <th> COLLEGE </th>
                        <th> BRANCH </th>
                        <th> YEAR </th>
                        <th> EMAIL ID </th>
                        <th> CGPA </th>
                        <th> COURSES </th>
                        <th> CREDITS </th>

                    </tr>
                    <xsl:for-each select="STUDENTS/STUDENT">
                    <xsl:sort select="CGPA"/>
```

```
                <tr>
                    <td>
                        <xsl:value-of select="REGID"/>
                    </td>
                    <td>
                        <xsl:value-of select="NAME"/>
                    </td>
                    <td>
                        <xsl:value-of select="COLLEGE"/>
                    </td>
                    <td>
                        <xsl:value-of select="BRANCH"/>
                    </td>
                    <td>
                        <xsl:value-of select="YEAR"/>
                    </td>
                    <td>
                        <xsl:value-of select="EMAILID"/>
                    </td>
                    <td>
                        <xsl:value-of select="CGPA"/>
                    </td>
                    <td>
                        <xsl:value-of select="COURSES"/>
                    </td>
                    <td>
                        <xsl:value-of select="CREDITS"/>
                    </td>
                </tr>
            </xsl:for-each>
        </table>
        <h3>The student details whose CGPA between 7.5 and 8.5: </h3>
        <table>
            <tr>
                <th> REGID</th>
                <th> NAME </th>
                <th> COLLEGE </th>
                <th> BRANCH </th>
                <th> YEAR </th>
                <th> EMAIL ID </th>
                <th> CGPA </th>
                <th> COURSES </th>
                <th> CREDITS </th>
            </tr>
            <xsl:for-each select="STUDENTS/STUDENT"  >
            <xsl:if test="CGPA &lt; 8.5 and CGPA &gt; 7.5">
                <tr>
                    <td>
                        <xsl:value-of select="REGID"/>
                    </td>
                    <td>
                        <xsl:value-of select="NAME"/>
                    </td>
                    <td>
                        <xsl:value-of select="COLLEGE"/>
                    </td>
                    <td>
                        <xsl:value-of select="BRANCH"/>
                    </td>
                    <td>
```
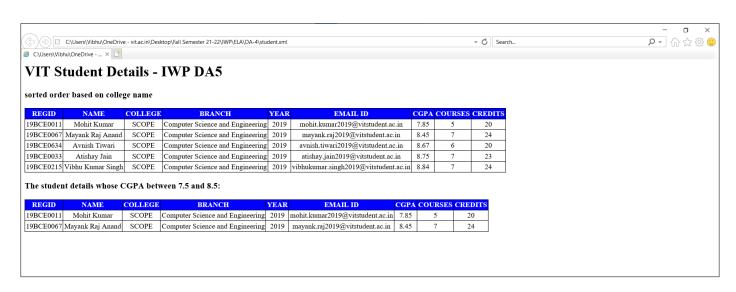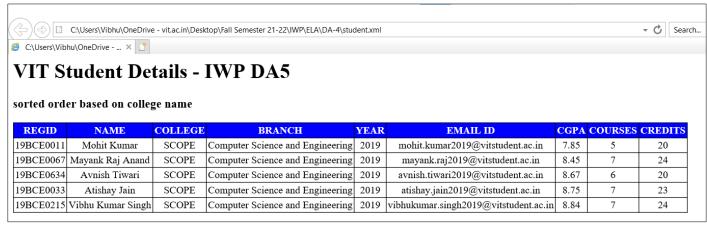
```
                        <xsl:value-of select="YEAR"/>
                    </td>
                    <td>
                        <xsl:value-of select="EMAILID"/>
                    </td>
                    <td>
                        <xsl:value-of select="CGPA"/>
                    </td>
                    <td>
                        <xsl:value-of select="COURSES"/>
                    </td>
                    <td>
                        <xsl:value-of select="CREDITS"/>
                    </td>
                </tr>
                </xsl:if>
                </xsl:for-each>
            </table>
        </body>
    </html>
    </xsl:template>
</xsl:stylesheet>
```

Output:

VIT Student Details - IWP DA5

sorted order based on college name

REGID	NAME	COLLEGE	BRANCH	YEAR	EMAIL ID	CGPA	COURSES	CREDITS
19BCE0011	Mohit Kumar	SCOPE	Computer Science and Engineering	2019	mohit.kumar2019@vitstudent.ac.in	7.85	5	20
19BCE0067	Mayank Raj Anand	SCOPE	Computer Science and Engineering	2019	mayank.raj2019@vitstudent.ac.in	8.45	7	24
19BCE0634	Avnish Tiwari	SCOPE	Computer Science and Engineering	2019	avnish.tiwari2019@vitstudent.ac.in	8.67	6	20
19BCE0033	Atishay Jain	SCOPE	Computer Science and Engineering	2019	atishay.jain2019@vitstudent.ac.in	8.75	7	23
19BCE0215	Vibhu Kumar Singh	SCOPE	Computer Science and Engineering	2019	vibhukumar.singh2019@vitstudent.ac.in	8.84	7	24

The student details whose CGPA between 7.5 and 8.5:

REGID	NAME	COLLEGE	BRANCH	YEAR	EMAIL ID	CGPA	COURSES	CREDITS
19BCE0011	Mohit Kumar	SCOPE	Computer Science and Engineering	2019	mohit.kumar2019@vitstudent.ac.in	7.85	5	20
19BCE0067	Mayank Raj Anand	SCOPE	Computer Science and Engineering	2019	mayank.raj2019@vitstudent.ac.in	8.45	7	24

VIT Student Details - IWP DA5

sorted order based on college name

REGID	NAME	COLLEGE	BRANCH	YEAR	EMAIL ID	CGPA	COURSES	CREDITS
19BCE0011	Mohit Kumar	SCOPE	Computer Science and Engineering	2019	mohit.kumar2019@vitstudent.ac.in	7.85	5	20
19BCE0067	Mayank Raj Anand	SCOPE	Computer Science and Engineering	2019	mayank.raj2019@vitstudent.ac.in	8.45	7	24
19BCE0634	Avnish Tiwari	SCOPE	Computer Science and Engineering	2019	avnish.tiwari2019@vitstudent.ac.in	8.67	6	20
19BCE0033	Atishay Jain	SCOPE	Computer Science and Engineering	2019	atishay.jain2019@vitstudent.ac.in	8.75	7	23
19BCE0215	Vibhu Kumar Singh	SCOPE	Computer Science and Engineering	2019	vibhukumar.singh2019@vitstudent.ac.in	8.84	7	24

The student details whose CGPA between 7.5 and 8.5:

REGID	NAME	COLLEGE	BRANCH	YEAR	EMAIL ID	CGPA	COURSES	CREDITS
19BCE0011	Mohit Kumar	SCOPE	Computer Science and Engineering	2019	mohit.kumar2019@vitstudent.ac.in	7.85	5	20
19BCE0067	Mayank Raj Anand	SCOPE	Computer Science and Engineering	2019	mayank.raj2019@vitstudent.ac.in	8.45	7	24