

WEEK-10 XML

1. Write an XML file which will display the Book information. It includes the following:

- 1) Title of the book
- 2) Author Name
- 3) ISBN number
- 4) Publisher name
- 5) Edition
- 6) Price

Write a Document Type Definition (DTD) to validate the above XML file. Display the XML file as follows. The contents should be displayed in a table. The header of the table should be in colour GREY. And the Author names column should be displayed in one colour and should be capitalized and in bold. Use your own colours for remaining columns. Use XML and CSS for the above purpose.

```
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="book.xsl"?>
<!DOCTYPE books SYSTEM "book.dtd">

<books>

  <heading>Book Information</heading>

  <book>
    <title>Data Structures and Algorithms</title>
    <author>NARASIMHA KARUMACHI</author>
    <isbn>BOOKISBN001</isbn>
    <publishername>XYZ Publications</publishername>
    <edition>First</edition>
    <price>1000</price>
  </book>

  <book>
    <title>Introduction to Algorithms</title>
    <author>THOMAS H CORMEN</author>
    <isbn>BOOKISBN002</isbn>
    <publishername>MIT Press</publishername>
    <edition>Third</edition>
    <price>1200</price>
  </book>

  <book>
    <title>Database System Concepts</title>
    <author>Korth</author>
    <isbn>BOOKISBN003</isbn>
```

```

    <publishername>MIT Press</publishername>
    <edition>Second</edition>
    <price>1300</price>
  </book>
</books>

```

| Title | Author | ISBN | Publisher Name | Edition | Price |
|--------------------------------|---------------------|-------------|------------------|---------|-------|
| Data Structures and Algorithms | NARASIMHA KARUMACHI | BOOKISBN001 | XYZ Publications | First | 1000 |
| Introduction to Algorithms | THOMAS H CORMEN | BOOKISBN002 | MIT Press | Third | 1200 |
| Database System Concepts | Korth | BOOKISBN003 | MIT Press | Second | 1300 |

DTD FILE

```

<!ELEMENT books (heading, (book)*)>
<!ELEMENT heading (#PCDATA)>
<!ELEMENT book (title, author, isbn, publishername, edition, price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT isbn (#PCDATA)>
<!ELEMENT publishername (#PCDATA)>
<!ELEMENT edition (#PCDATA)>
<!ELEMENT price (#PCDATA)>

```

2. Design an XML document to store information about a student in an MNNIT. The information must include Roll no, Name, and Name of the College, Branch, Year of Joining, and email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.

```

<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="student.xsl"?>

<students>

  <heading>Student Information</heading>

  <student>
    <rollno>2020CS089</rollno>

```

```

        <name>kancha kancha</name>
        <collegename>MNNIT</collegename>
        <branch>MSc</branch>
        <year>2020</year>
        <email>harshit.2020cs084@mnnit.ac.in</email>
    </student>

    <student>
        <rollno>2021CA117</rollno>
        <name>Vikash Gupta</name>
        <collegename>MNNIT</collegename>
        <branch>MCA</branch>
        <year>2021</year>
        <email>vikash.2021ca117@mnnit.ac.in</email>
    </student>

    <student>
        <rollno>20211251</rollno>
        <name>HariOm Sharma</name>
        <collegename>MNNIT</collegename>
        <branch>BTech</branch>
        <year>2021</year>
        <email>hariom.20211251@mnnit.ac.in</email>
    </student>
</students>

```

```

<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:template match="/">
        <html>
            <body>
                <h2 style="background-color:lightblue; text-align:center;">
Student Information</h2>

                <table border="1" style="margin-left: auto; margin-right: auto;">
                    <tr bgcolor="violet">
                        <th align="center" style="padding:10px;">Roll No</th>
                        <th align="center" style="padding:10px;">Name</th>
                        <th align="center" style="padding:10px;">College
Name</th>
                        <th align="center" style="padding:10px;">Branch</th>
                        <th align="center" style="padding:10px;">Year</th>
                        <th align="center" style="padding:10px;">Email ID</th>
                    </tr>

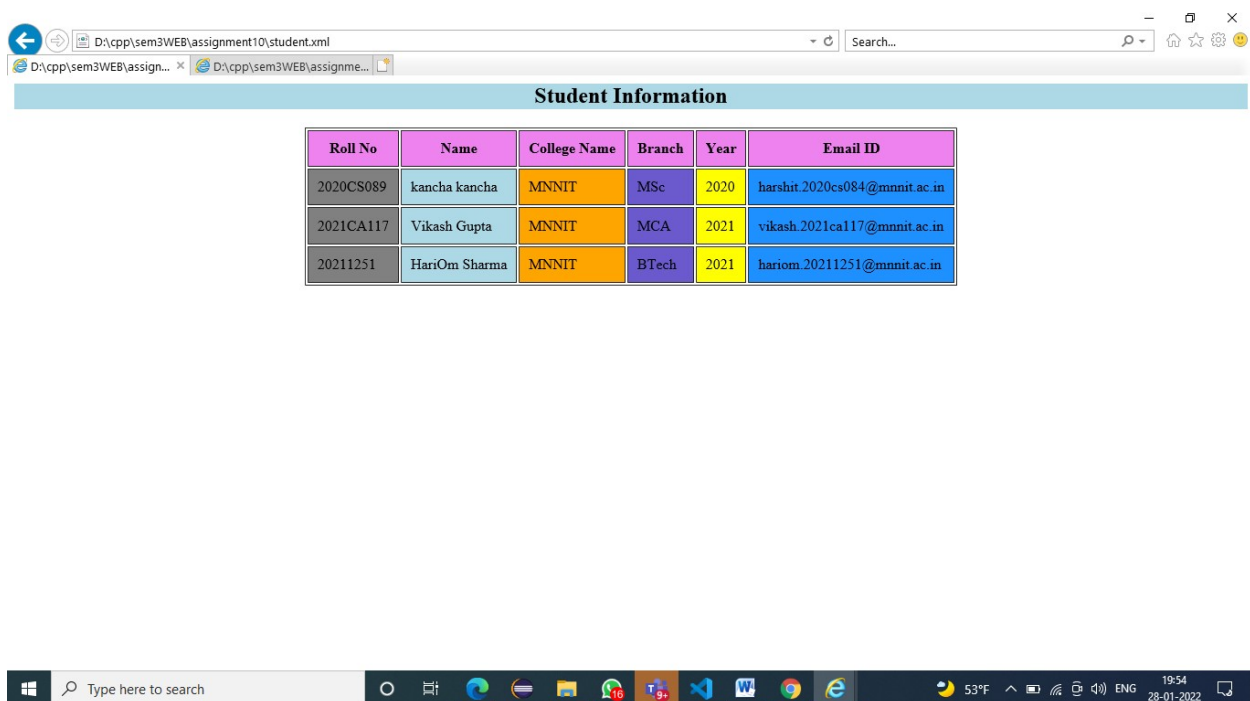
                    <xsl:for-each select="students/student">
                        <tr>
                            <td bgcolor="grey" style="padding:10px;">
                                <xsl:value-of select="rollno" />
                            </td>

```

```

        <td bgcolor="lightblue" style="padding:10px;S">
            <xsl:value-of select="name" />
        </td>
        <td bgcolor="orange" style="padding:10px;">
            <xsl:value-of select="collegename" />
        </td>
        <td bgcolor="slateblue" style="padding:10px;">
            <xsl:value-of select="branch" />
        </td>
        <td bgcolor="yellow" style="padding:10px;">
            <xsl:value-of select="year" />
        </td>
        <td bgcolor="dodgerblue" style="padding:10px;">
            <xsl:value-of select="email" />
        </td>
    </tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>

```



The screenshot shows a web browser window with the address bar displaying 'D:\cpp\sem3WEB\assignment10\student.xml'. The browser displays a table titled 'Student Information'. The table has six columns: Roll No, Name, College Name, Branch, Year, and Email ID. The data is as follows:

| Roll No | Name | College Name | Branch | Year | Email ID |
|-----------|---------------|--------------|--------|------|-------------------------------|
| 2020CS089 | kancha kancha | MNNIT | MSc | 2020 | harshit.2020cs084@mnnit.ac.in |
| 2021CA117 | Vikash Gupta | MNNIT | MCA | 2021 | vikash.2021ca117@mnnit.ac.in |
| 20211251 | HariOm Sharma | MNNIT | BTech | 2021 | hariom.20211251@mnnit.ac.in |

3. Writing program in XML for creation of DTD, which specifies set of rules. Create a style sheet in CSS/ XSL & display the document in internet explorer.

Book.xml

```

<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:template match="/">

```

```

    <html>
      <body>
        <h2 style="background-color:lightblue; text-align:center;"> Book
Information</h2>

        <table border="1" style="margin-left: auto;
margin-right: auto;">
          <tr bgcolor="grey" >
            <th align="center" style="padding:10px;">Title</th>
            <th align="center" style="padding:10px;">Author</th>
            <th align="center" style="padding:10px;">ISBN</th>
            <th align="center" style="padding:10px;">Publisher
Name</th>
            <th align="center" style="padding:10px;">Edition</th>
            <th align="center" style="padding:10px;">Price</th>
          </tr>

          <xsl:for-each select="books/book">
            <tr>
              <td bgcolor="violet" style="padding:10px;">
                <xsl:value-of select="title" />
              </td>
              <td bgcolor="lightblue" style="padding:10px; font-
weight: bold;">
                <xsl:value-of select="author" />
              </td>
              <td bgcolor="orange" style="padding:10px;">
                <xsl:value-of select="isbn" />
              </td>
              <td bgcolor="slateblue" style="padding:10px;">
                <xsl:value-of select="publishername" />
              </td>
              <td bgcolor="yellow" style="padding:10px;">
                <xsl:value-of select="edition" />
              </td>
              <td bgcolor="dodgerblue" style="padding:10px;">
                <xsl:value-of select="price" />
              </td>
            </tr>
          </xsl:for-each>
        </table>
      </body>
    </html>
  </xsl:template>
</xsl:stylesheet>

```