WTWS LAB

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AIM: Transform an XML into HTML using XSLT and display the content in a Browser

THEORY: XML (eXtensible Markup Language) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.
XSLT is a language for transforming XML documents into other XML documents, HTML, or plain text. It uses XPath (XML Path Language) to navigate through elements and attributes in the XML document.

ALGORITHM:

1. Create an XML file with the desired content (In our case, books.xml).
2. Create an XSLT file with the necessary transformations to display the XML content in the desired format. (books.xslt)
3. Link the XSLT file to the XML file by adding the following processing instruction at the beginning of the XML file:
   <?xml-stylesheet type="text/xsl" href="books.xslt"?>
4. Open the XML file in a web browser that supports XSLT transformations. The browser will apply the XSLT file to the XML content and display the transformed result.

CODE:

books.xml

```
books - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="books.xslt"?>
<library>
  <book>
    <title>WEB TECHNOLOGIES - A Computer Science Perspective</title>
    <author>Jeffrey C. Jackson</author>
    <publisher>Pearson</publisher>
    <edition>1st</edition>
    <price>379</price>
  </book>
  <book>
    <title>Web Technologies Black Book</title>
    <author>Kogent Learning Solutions Inc</author>
    <publisher>Dreamtech Press</publisher>
    <edition>1st</edition>
    <price>886</price>
  </book>
  <book>
    <title>Web Technologies TCP/IP,Web/Java Programming, and Cloud Computing</title>
    <author>Achyut Godbole, Atul Kahate</author>
    <publisher>McGraw Hill Education</publisher>
    <edition>3rd</edition>
    <price>670</price>
  </book>
</library>
```
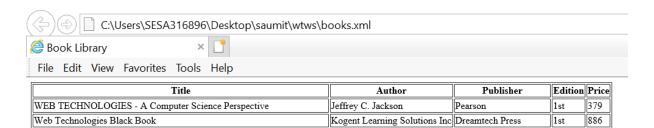
books.xslt

books - Notepad

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```xml
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <html>
      <head>
        <title>Book Library</title>
      </head>
      <body>
        <table border="1">
          <tr>
            <th>Title</th>
            <th>Author</th>
            <th>Publisher</th>
            <th>Edition</th>
            <th>Price</th>
          </tr>
          <xsl:for-each select="library/book">
            <tr>
              <td><xsl:value-of select="title"/></td>
              <td><xsl:value-of select="author"/></td>
              <td><xsl:value-of select="publisher"/></td>
              <td><xsl:value-of select="edition"/></td>
              <td><xsl:value-of select="price"/></td>
            </tr>
          </xsl:for-each>
        </table>
      </body>
    </html>
  </xsl:template>
</xsl:stylesheet>
```

OUTPUT:

C:\Users\SESA316896\Desktop\saumit\wtws\books.xml

Book Library

File Edit View Favorites Tools Help

Title	Author	Publisher	Edition	Price
WEB TECHNOLOGIES - A Computer Science Perspective	Jeffrey C. Jackson	Pearson	1st	379
Web Technologies Black Book	Kogent Learning Solutions Inc	Dreamtech Press	1st	886
Web Technologies TCP/IP,Web/Java Programming, and Cloud Computing	Achyut Godbole, Atul Kahate	McGraw Hill Education	3rd	670