

STUDENT ACTIVITY 2.1

MTA Course: Web Development Fundamentals

Lesson name: Web Development Fundamentals 2.1

Topic: Read and write XML data

File name: WebDevFund_SA_2.1

Lesson Objective:

2.1: Read and write XML data. *This objective may include but is not limited to:* XML, XML validation. *This objective does not include:* Web Services, XPath syntax, XmlDocument, XPathNavigator, XPathNodeIterator, XPathDocument, XmlReader, XmlWriter, XmlDataDocument, XmlNamespaceManager.

Resources, software, and additional files needed for this lesson:

- A Windows®-based PC with installed Web development software. Examples include Microsoft Visual Studio 2008®, or
- Microsoft Visual Basic 2008®, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-Basic>)
- Microsoft Visual C# 2008®, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-CS>)
- Microsoft Visual Web Developer 2008, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-Web-Developer>)
- Creating an XML document:
<http://quickstarts.asp.net/QuickStartv20/howto/doc/Xml/OverviewofXML.aspx>
<http://msdn.microsoft.com/en-us/data/bb190600.aspx>
<http://msdn.microsoft.com/en-us/library/aa468547.aspx>

Directions to the student:**1. Find the error:**

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<note>

    <to>Jane</to>

    <from>Tammy</Ffrom>

    <heading>Reminder</heading>

    <body>Don't forget to do your homework for English
tomorrow!</body>

</note>
```

2. Create a simple XML document using notepad to keep track of your CD collection. You want to keep track of the following information for each CD: Title, Artist, Year, Number of Tracks, Cost. Include data for at least five CDs in your document. Save the file as CD_Catalog.xml**3. Validate an XML document:**

- Visit the following website:
http://www.w3schools.com/XML/xml_validator.asp
- Following the instructions for validating an XML page using the XML document you created in problem 2 of this activity.
- A message will indicate the result of the validation process. Correct as necessary.
- Remove some of the closing tags or misspell a tag and record the results of the validation process for each introduced error.

4. Use this html page to test your new CD Collection xml file. Make sure both file are in the same directory.

```
<html>
<body>

<script type="text/javascript">
    var xmlDoc=null;
    if (window.ActiveXObject)
    {
        // code for IE
        xmlDoc=new ActiveXObject("Microsoft.XMLDOM");
    }
    else if (document.implementation.createDocument)
    {
        // code for Mozilla, Firefox, Opera, etc.
        xmlDoc=document.implementation.createDocument("", "", null);
    }
}
```

```

else
{
    alert('Your browser cannot handle this script');
}
if (xmlDoc!=null)
{
    xmlDoc.async=false;
    xmlDoc.load("cd_catalog.xml");
    var x=xmlDoc.getElementsByTagName("cd");
    document.write("<table border='1'>");
    document.write("<thead>");

    document.write("<tr><th>Artist</th><th>Title</th></tr>");
    document.write("</thead>");

    document.write("<tfoot>");
    document.write("<tr><th colspan='2'>This is my CD collection</th></tr>");
    document.write("</tfoot>");

    for (var i=0;i<x.length;i++)
    {
        document.write("<tr>");
        document.write("<td>");
        document.write(x[i].getElementsByTagName("artist")[0].childNodes[0].nodeValue);
        document.write("</td>");

        document.write("<td>");
        document.write(x[i].getElementsByTagName("title")[0].childNodes[0].nodeValue);
        document.write("</td>");
        document.write("</tr>");
    }

    document.write("</table>");
}
</script>

</body>
</html>

```

5. Use the links below to review the process of creating an XML document and using it in conjunction with the Web services listed in the Lesson Objective:
<http://quickstarts.asp.net/QuickStartv20/howto/doc/Xml/OverviewofXML.aspx>
<http://msdn.microsoft.com/en-us/data/bb190600.aspx>
<http://msdn.microsoft.com/en-us/library/aa468547.aspx>