XML NAMESPACE

Name Conflicts

```
<table>
 <tr>
  <td>Thai</td>
  <td>Mexican</td>
 </tr>
</table>
```

```
<table>
 <name>Computer table</name>
 <width>80</width>
 <length>120</length>
</table>
```

Solving the Name Conflict Using a Prefix

E.g.

```
<c:table>
  <c:tr>
    <c:td>Mexican</c:td>
    <c:td>Thai</c:td>
  </c:tr>
</c:table>


<f:table>
  <f:name>Computer table</f:name>
  <f:width>80</f:width>
  <f:length>120</f:length>
</f:table>
```

Namespace

- A **Namespace** is a set of unique names

- XML Namespaces - provide a method to avoid element name conflicts

- mechanisms by which element and attribute name can be assigned to a group

- Namespace - identified by URI(Uniform Resource Identifiers)

XML Namespace Declaration

- When using prefixes in XML, a **namespace** for the prefix must be defined

- The namespace can be defined by an **xmlns** attribute in the start tag of an element

- The namespace declaration has the following syntax

    xmlns:*prefix="URI"*

Here,

    namespace starts with keyword **"xmlns"**.

    The word **prefix** is a namespace prefix.

    The **URI** is a namespace identifier.

- **By Using xmlns Attribute**

E.g.

\<root\>

\<h:table xmlns:h="http://www.HTML-TUT.com/TR/"**\>**
  \<h:tr\>
    \<h:td\>Mexican**\</h:td\>**
    \<h:td\>Thai**\</h:td\>**
  \</h:tr\>
\</h:table\>

\<f:table xmlns:f="http://www.ddecor.com/furniture"**\>**
  \<f:name\>Computer table**\</f:name\>**
  \<f:width\>80**\</f:width\>**
  \<f:length\>120**\</f:length\>**
\</f:table\>

\</root\>

Note-
When a namespace is defined for an element, all child elements with the same prefix are associated with the same namespace

Contd …

- In the example above:

- The xmlns attribute in the first <table> element gives the h: prefix a qualified namespace.

- The xmlns attribute in the second <table> element gives the f: prefix a qualified namespace.

The Default Namespace

- used - to save - from using prefixes in all the child elements

- difference between - default namespace & simple namespace :
    There is no need to use a prefix in default namespace

- use multiple namespaces within the same document -
    just define a namespace against a child node

- **Syntax** :   xmlns="*namespaceURI*"

Example of Default Namespace

- This XML carries HTML table information:

```
<table xmlns="http://www.HTML-TUT/TR/">
  <tr>
    <td>Mexican</td>
    <td>Thai</td>
  </tr>
</table>
```

Example of Default Namespace

- This XML carries information about a piece of furniture:


```
<table xmlns="https://www.ddecor.com/furniture">
        <name>Computer Table</name>
        <width>80</width>
        <length>120</length>
</table>
```

```xml
<root xmlns:h="http://www.HTML-TUT.com/TR/"
      xmlns:f="http://www.ddecor.com/furniture">

<h:table>
  <h:tr>
    <h:td>Mexican</h:td>
    <h:td>Thai</h:td>
  </h:tr>
</h:table>

<f:table>
  <f:name>Computer Table</f:name>
  <f:width>80</f:width>
  <f:length>120</f:length>
</f:table>

</root>
```

Note:

Namespaces can also be declared in the XML root element

Example

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

<cont:contact xmlns:cont="http://svnit.ac.in/contact-us">
   <cont:name>Admin Department</cont:name>
   <cont:college>SVNIT</cont:college>
   <cont:phone>(0120) 425-6464</cont:phone>
</cont:contact>
```

Uniform Resource Identifier (URI)

- Uniform Resource Identifier - identify the internet resource

- It is a string of characters

- The most common URI is URL (Uniform Resource Locator)
  - identifies an internet domain address

- purpose of using an URI -> to give namespace a unique name

Thank YOU!