

PRACTICAL 2

Aim :

Introduction to XML and create food menu using XML.

Theory :

eXtensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The World Wide Web Consortium's XML 1.0 Specification of 1998 and several other related specifications – all of them free open standards – define XML.

The design goals of XML emphasize simplicity, generality, and usability across the Internet. It is a textual data format with strong support via Unicode for different human languages. Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services.

Several schema systems exist to aid in the definition of XML-based languages, while programmers have developed many application programming interfaces (APIs) to aid the processing of XML data.

What is Markup ?

Markup is information added to a document that enhances its meaning in certain ways, in that it identifies the parts and how they relate to each other. More specifically, a markup language is a set of symbols that can be placed in the text of a document to demarcate and label the parts of that document.

Is XML a Programming Language ?

A programming language consists of grammar rules and its own vocabulary which is used to create computer programs. These programs instruct the computer to perform specific tasks. XML does not qualify to be a programming language as it does not perform any computation or algorithms. It is usually stored in a simple text file and is processed by special software that is capable of interpreting XML.

Differences between HTML & XML

- HTML is used to display data and focuses on how data looks. XML is a software and hardware independent tool used to transport and store data. It focuses on what data is.
- HTML is a markup language itself. XML provides a framework to define markup languages.
- HTML is not case sensitive. XML is case sensitive.
- HTML is a presentation language. XML is neither a presentation language nor a programming language.
- HTML has its own predefined tags. You can define tags according to your need in XML.
- In HTML, it is not necessary to use a closing tag. XML makes it mandatory to use a closing tag.
- HTML is static because it is used to display data. XML is dynamic because it is used to transport data.
- HTML does not preserve whitespaces. XML preserve whitespaces.

XML Usage

- XML can work behind the scene to simplify the creation of HTML documents for large web sites.
- XML can be used to exchange the information between organizations and systems.
- XML can be used for offloading and reloading of databases.
- XML can be used to store and arrange the data, which can customize your data handling needs.
- XML can easily be merged with style sheets to create almost any desired output.
- Virtually, any type of data can be expressed as an XML document.

Code :

```
<?xml version = "1.0" encoding = "UTF-8"?>
<breakfast_menu>
  <food>
    <name>Belgian Waffles</name>
    <price>$5.95</price>
    <desc>Two of our famous Belgian Waffles with plenty of real maple
syrup</desc>
    <calories>650</calories>
  </food>
  <food>
    <name>Strawberry Belgian Waffles</name>
    <price>$7.95</price>
    <desc>Light Belgian waffles covered with strawberries and whipped
cream</desc>
    <calories>900</calories>
  </food>
  <food>
    <name>Berry-Berry Belgian Waffles</name>
    <price>$8.95</price>
    <desc>Light Belgian waffles covered with an assortment of fresh be
rries and whipped cream</desc>
    <calories>900</calories>
  </food>
  <food>
    <name>French Toast</name>
    <price>$4.50</price>
    <desc>Thick slices made from our homemade sourdough bread</desc>
    <calories>600</calories>
  </food>
  <food>
    <name>Homestyle Breakfast</name>
    <price>$6.95</price>
    <desc>Two eggs, bacon or sausage, toast, and our ever-
popular hash browns</desc>
    <calories>950</calories>
  </food>
</breakfast_menu>
```

Screen Shots :

