

Web Engineering

Class Activity

Group Exercise – 2

XML-DTD

Gr -1

Develop an XML file based on the following DTD for Computer Parts comprising of a Motherboard, Video Card, Sound Card and a Monitor.

```
<!ELEMENT PARTS (TITLE?, PART*)>
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT PART (ITEM, MANUFACTURER, MODEL, COST)+>
<!ATTLIST PART
    type (computer|auto|airplane) #IMPLIED>
<!ELEMENT ITEM (#PCDATA)>
<!ELEMENT MANUFACTURER (#PCDATA)>
<!ELEMENT MODEL (#PCDATA)>
<!ELEMENT COST (#PCDATA)>
```

Solution

```
<?xml version="1.0"?>
<!DOCTYPE PARTS SYSTEM "parts.dtd">
<?xml-stylesheet type="text/css" href="xmlpartsstyle.css"?>
<PARTS>
  <TITLE>Computer Parts</TITLE>
  <PART>
    <ITEM>Motherboard</ITEM>
    <MANUFACTURER>ASUS</MANUFACTURER>
    <MODEL>P3B-F</MODEL>
    <COST> 123.00</COST>
  </PART>
  <PART>
    <ITEM>Video Card</ITEM>
    <MANUFACTURER>ATI</MANUFACTURER>
    <MODEL>All-in-Wonder Pro</MODEL>
    <COST> 160.00</COST>
  </PART>
  <PART>
    <ITEM>Sound Card</ITEM>
    <MANUFACTURER>Creative Labs</MANUFACTURER>
    <MODEL>Sound Blaster Live</MODEL>
    <COST> 80.00</COST>
  </PART>
  <PART>
    <ITEM> 15 inch Monitor</ITEM>
    <MANUFACTURER>LG Electronics</MANUFACTURER>
    <MODEL> 995E</MODEL>
    <COST> 290.00</COST>
  </PART>
</PARTS>
```

XML-DTD

Gr -2

Develop an XML file based on the following DTD for one recipe with atleast 4 steps of preparation.

```
<!ELEMENT collection (description,recipe*)>
<!ELEMENT description ANY>
<!ELEMENT recipe (title,ingredient*,preparation)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT ingredient (ingredient*,preparation)?>
<!ATTLIST ingredient name CDATA #REQUIRED
                    amount CDATA #IMPLIED
                    unit CDATA #IMPLIED>
<!ELEMENT preparation (step*)>
<!ELEMENT step (#PCDATA)>
```

Solution

```
<?xml version="1.0" encoding="UTF-8"?>
<collection>
  <description>
    Some recipes used for the XML tutorial.
  </description>
  <recipe>
    <title>Beef Parmesan with Garlic Angel Hair Pasta</title>
    <ingredient name="beef cube steak" amount="1.5" unit="pound"/>
    ...
    <preparation>
      <step>
        Preheat oven to 350 degrees F (175 degrees C).
      </step>
      <step>
        This is step 2.
      </step>
      <step>
        This is step 3.
      </step>
      <step>
        This is step 4.
      </step>
    </preparation>
  </recipe>
  ...
</collection>
```