

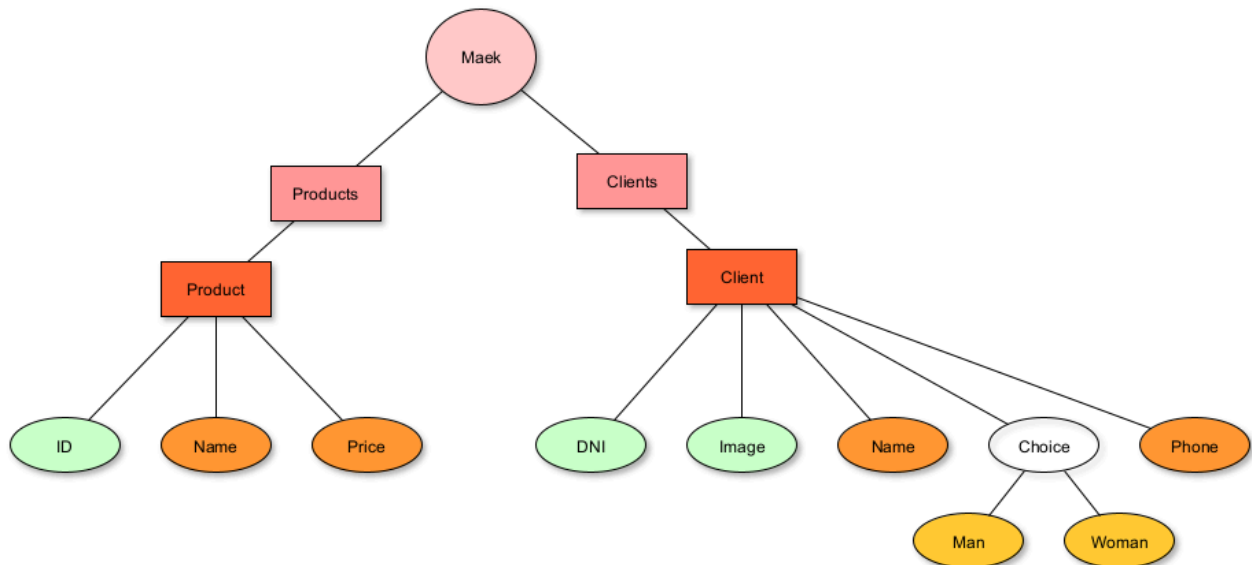
## **Selected Website**

We have chosen to select a website from a previous project which contains information on computer parts. In this site we wish to store and show the necessary information about our clients/users and products using the required resources to do so, which includes XML, XSD, XSLT, etc.

## **XML File Proposal**

In order to properly store this information, we need an xml file to do so. This xml file will consist of clients, whoms information will be stored. The information needed will include the name of the client, their dni, whether they are a vip or not, their gender, and their phone number. Along with storing information about the clients, it is also necessary to store information on products shown in the site as seen in the image above. The information that is needed to be stored about the products includes the product id, name, and price.

Here is the xml with all of the above included:



## **XSD File Proposal**

Now that we have the xml, we need to interpret the information stored in it. To do this, we have came up with this xsd file. This file takes the information from the clients and products and properly registers and declares the type of data it is. For example, the client is a node that has an attribute dni which is required and is a string. This is applied to all data stored for our site.

### **Multiple Element**

In “MAEK\_LMS.xml” the element **client** must appear at least 1 time, from 1 to several times, because of that **client** element has the restriction [**maxOccurs=“unbounded”**].

### **Optional Element**

In “MAEK\_LMS.xml” the child element **vip** can not appear because not all the clients are vips, because of that the restriction [**minOccurs=“0”**] is used.

### **Choice Element**

In “MAEK\_LMS.xml” the clients have the option to **choose** if they are **man** or **woman** due to that we have the utility of **choice**, inside of that the option to choose between the **empty elements man or woman**.

### **Restrictions**

In “MAEK\_LMS.xml”, the **dni** attribute of the clients is restricted to 8 digits followed by 1 capital letter. The **phone** attribute must contain exactly 9 digits, and finally, the **Id** attribute of products must have a minimum of 4 characters.

### **Various attributes in different Element**

In “MAEK\_LMS.xml” the elements client and product have their own attributes. In the element client has **dni** and **image**, where dni is a xs:string and image is also an xs:string which will contain an URL to be displayed on the website. In the element product the attribute we will store is an **Id** which is an xs:string.

## **XSLT File Proposal**

The XSLT transformation focuses on modifying “AddUserXSLT.html” to update the table of clients and include the changes stored in the BaseX server database.

## **XQUERY File Proposal**

For the insertion, we create a form that asks for all the client's information. When you click the button, it asks for confirmation, and then the client is inserted into the BaseX database and exported to an XML file.