

Directed work 4 (TD)

XQuery

Exercise 1

The XML database, shown in Figure 1, demonstrates a catalog of products (catalog.xml), the historic of price changes, and a set of orders passed on the products.

| | |
|---|---|
| <pre> 1 <catalog> 2 <product dept="WMN"> 3 <number>557</number> 4 <name language="en">Fleece Pullover</name> 5 <colorChoices>navy black</colorChoices> 6 </product> 7 <product dept="ACC"> 8 <number>563</number> 9 <name language="en">Floppy Sun Hat</name> 10 </product> 11 <product dept="ACC"> 12 <number>443</number> 13 <name language="en">Deluxe Travel Bag</name> 14 </product> 15 <product dept="MEN"> 16 <number>784</number> 17 <name language="en">Cotton Dress Shirt</name> 18 <colorChoices>white gray</colorChoices> 19 <desc>Our <i>favorite</i> shirt!</desc> 20 </product> 21 </catalog> </pre> <p style="text-align: center;">catalog.xml</p> | <pre> 1 <prices> 2 <priceList effDate="2006-11-15"> 3 <prod num="557"> 4 <price currency="USD">29.99</price> 5 <discount type="CLR">10.00</discount> 6 </prod> 7 <prod num="563"> 8 <price currency="USD">69.99</price> 9 </prod> 10 <prod num="443"> 11 <price currency="USD">39.99</price> 12 <discount type="CLR">3.99</discount> 13 </prod> 14 </priceList> 15 </prices> </pre> <p style="text-align: center;">price.xml</p> |
| <pre> 1 <order num="00299432" date="2006-09-15" cust="0221A"> 2 <item dept="WMN" num="557" quantity="1" color="navy"/> 3 <item dept="ACC" num="563" quantity="1"/> 4 <item dept="ACC" num="443" quantity="2"/> </order> </pre> <p style="text-align: right;">order.xml</p> | |

Figure 1. Entity-relationship sub-model of the University Database

Questions

1- Give the XQuery scripts that returns:

- The first two products
- The number of products
- The price of the products (in USD) of the date '2006-11-15'
- All items of the order number '00299432'
- The product name having the **dept** attribute
- The product names given in English "en"
- Details of all orders as follows

```
<commande num='.....'>
```

```
<article produit='.....' dept='....' Quantite='.....' couleur='.....'>
```

```
</commande>
```

N.B instead of number of a product provide its name in 'product' attribute