# INFO-H-509 : Technologies XML
# TP 3 – XSLT

Professor : Stijn Vansummeren
Teaching Assistant : Julien Roland
http://cs.ulb.ac.be/public/teaching/infoh509

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All necessary input files for completing the following exercises may be found on the course's website. Unless explicitly stated otherwise, only `orders.xml` should be used as input.

## Exercise 1.1

Write an XSLT stylesheet that builds an XHTML document displaying the business card of each customer in `orders.xml`, based on the following output model.

```
<html>
  <head><title>Customers</title></head>
  <body>
  <h1>Jaime Yorres</h1>
  <p>Owner of Let's Stop and Shop</p>
  <p>Contact:</p>
  <ul>
    <li>Phone: (415) 555-5938</li>
    <li>Phone: (415) 555-5936</li>
    <li>Fax: (415) 555-5738</li>
  </ul>
  <address>
    87 Polk St. Suite 5<br />
    San Francisco, CA 94117<br />
    USA
  </address>
  ...
  </body>
</html>
```

## Exercise 1.2

The content of element `<Comment>` in `orders.xml` is written in XHTML. Extract these comments and display them in XHTML together with the corresponding customer ID. The document must be sorted by the order date, from the oldest to the newest one.

```
<html>
  <head><title>Customers</title></head>
  <body>
  <h1>LETTS</h1>
  <p xmlns="http://www.w3.org/1999/xhtml">
    Customer is elligible promotional item <strong>1234</strong>
```

```
  </p>
  ...
```

## Exercise 1.3

Based on the following output model, create an XSLT stylesheet that outputs a list of customers, together with the number of orders that those customers have placed.

```
<customers>
  <customer id="GREAL" orders="11"/>
  <customer id="HUNGC" orders="5"/>
  ...
```

## Exercise 1.4

Create an XSLT stylesheet that, for each client $c$, builds a list of $c$'s orders. The orders must be sorted from the newest to the oldest one.

```
<customers>
  <customer id="GREAL">
    <Order>
      <CustomerID>GREAL</CustomerID>
      <EmployeeID>1</EmployeeID>
      <OrderDate>1997-07-31T00:00:00</OrderDate>
      ...
```

## Exercise 1.5

**Additional exercise:** Create an XSLT stylesheet that outputs the IDs of the customers that have ordered heavy (freight $\geq 500$), average ($500 >$ freight $\geq 10$) or light (freight $< 10$) objects.

```
<weight>
  <heavy>
    <customer id="GREAL"/>
  </heavy>
  ...
```

**Additional exercise:** Classify customers by the average weight of their orders.

## Exercise 1.6

Design an XSLT stylesheet that gives as output the exact document given as input, without the use of `copy-of`.

Modify this stylesheet to remove XML comments.

## Exercise 1.7

Create an XSLT stylesheet that transforms the list of orders in `orders.xml` into a text file containing for each customer (a) the country of billing, (b) the fax number if available or 'NULL' otherwise; and (c) the date of the last order. The data must be separated by commas as follows :

```
GREAL,USA,NULL,1998-04-30T00:00:00
HUNGC,USA,(503) 555-2376,1997-09-08T00:00:00
...
```