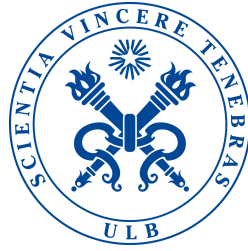# UNIVERSITÉ LIBRE DE BRUXELLES

INFO-H-509 : XML AND WEB TECHNOLOGIES

Project 1 : XML Schema Definition

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1.1 Presentation

As part of the course INFO-H-509 : XML and Web Technologies, we were asked to represent a bookshop in XML and also to define an XML Schema Definition for it.

1.2 Hypotheses

- The *scientific products* departement and *leisure products* departement must always exists since it's a bookshop that possesses these two "entities".

- It is possible for a departement to not have any products since products are items that can be sold, given or even thrown.

- We assume that the bookshop is pretty big and even has a storage in which they can store the extra products. Therefore, the number of products in a departement are unbounded.

- For the year of publication, we allow only positive integers because we assumed that the products on the bookshop were all published after the year 0.

- ISBN notation could vary so we defined it as a string.

- The price of a periodical leisure is a positive decimal with 2 digits.

1.3 Verification

We defined a bookshop with few items of each kind to test our schema. We also used the XSDValidation tool to check if the schema and the xml document matched. At the end, we created a complete bookshop with all kind of items, one with items only in the leisure departement and one with items only in the scientific departement to test some use cases.

1.4   Conclusion

With this project, we learned how to use XSD to describe the structure of an XML document. In this case, we described a specific bookshop with 2 departements. We had to put in relation the different kind of books and create new type in XSD to allow such behavior.