Assignment 10: XML Schema

- This assignment will be published on January 9th, 2017.
- You may work on the assignments in groups of up to three people (if possible, keep the same groups as in the previous assignments).
- The groups will present the solution of this assignment on January 17th, 2017 at 11:30. We will meet in seminar room 0.124.
- All members of a group have to show up together for the grading of the assignment. For the grading, each group will need to have the source code (XML schema) ready for the discussion as well as an online validator tool available to validate the XML. Moreover, each group member might be asked questions about the solution.
- If you have questions, send an email to holger.schwarz@ipvs.uni-stuttgart.de.

Task 1 – XML Schema

In this task, you will adapt bank.xml and bank.xsd from assignment 8 to use OO concepts and modularization. This task is based on a slightly modified version of bank.xml, which is available in Ilias as bank2.xml.

Task 1.1 – Type Hierarchy for Accounts

In bank2.xml, the savings_accounts and checking_accounts elements are removed. Adapt the XML Schema so that it validates the new file and satisfies the following additional requirement:

- The accounts element contains an arbitrary number of abstract account elements.
- An account element can be replaced by a savings_account or a checking_account element.

When writing the XML schema:

- Remember to adapt the constraints in the schema to the new structure.

Check your schema with a validator tool.

Task 1.2 – Modularised Schema

Divide the schema you created in the last task into three files with different namespaces.

- One file for the savings_account element and its type with the namespace http://acme-bank.com/bank/savings
- One file for the checking_account element and its type with the namespace http://acme-bank.com/bank/checking
- One file containing the remaining declarations with the namespace http://acme-bank.com/bank

Add the namespaces to bank2.xml and check your files with a validator tool.