Aufgabe 2-4: Schemaintegration – Tool support

Steps Performed	1. Installation von Atova MapForce
	2. Request of installation codes and completion of installation of Altova tool
	3. Definition of RelaxNG schema (manual) based on results of data cleaning transformations. Use of grammar elements for re-use on course level (since courses can be attached on different hierarchical levels)
	OUTPUT: https://github.com/fridlutz/UNIVIE/blob/master/INTERROP/Session%202/4%20Schema%20Mapping/relaxng.rng
	4. Validation of XML against RelaxNG schema using xmllint
	Command: xmllint --noout --relaxng relaxng.rng OWN_baseXML_tranformed.xml Result: OWN_baseXML_tranformed.xml validates
	5. Download and installation of MSV from https://msv.java.net
	6. Validaton of XML against RelaxNG schema using MSV
	Command: java -jar msv-20090415/msv.jar relaxng.rng OWN_baseXML_tranformed.xml Result: start parsing a grammar. validating OWN_baseXML_tranformed.xml the document is valid.
	7. Download and installation of TRANG from http://www.thaiopensource.com/relaxng/trang.html
	8. Transformation of RelaxNG to XSD using TRANG
	Command: java -jar trang-20091111/trang.jar relaxng.rng result.xsd Result: (result.xsd is available in workspace)
	9. Validation of XML against XSD schema using MSV
	Command: java -jar msv-20090415/msv.jar result.xsd OWN_baseXML_tranformed.xml Result: start parsing a grammar. validating OWN_baseXML_tranformed.xml the document is valid.
	10. Validation of XML against XSD schema using xmllint
	Command: xmllint --noout --schema result.xsd OWN_baseXML_tranformed.xml Result: FAILED
	11. Manual correction of XSD: Line 75-78, change structure and comment of dublicate entries
	12. Re-validation of XML against XSD schema using xmllint
	Command: xmllint --noout --schema result.xsd OWN_baseXML_tranformed.xml Result: OWN_baseXML_tranformed.xml validates
	13. Setup of new project in Altova Mapforce
	14. Setup of mapping (bottom-up from OWN to FOREIGN XSD)

15. Introduction of constant "NA" for non-existing elements
16. Generation of code for XQUERY, XSLT 1.0, Java