

Assignment 5

The assignment requires the use of model transformations by using the following languages/frameworks

- Epsilon (ETL and EGL)
- ATL and Aceleo

Task A5.1

Apply different refactoring operations on the metamodel defined in A2 to create an updated version. Those refinements should include:

- deletion and addition of concepts,
- concept renaming,
- structural refinements, for instance:
 - adding/removing hierarchies,
 - adding/removing structural features (i.e., attributes and references)
 - change attribute

Such refining steps are preliminary for the realization of task A3.2. At this stage, we will evaluate the complexity of the refining steps and their correct realization.

Task A5.2

Define a model-to-model transformation to migrate models conforming to the initial metamodel version to the one refined in task A3.1. For this task, feel free to choose your preferred transformation language, i.e., ATL or ETL.

Alternatively, the students can choose an existing relational database metamodel from the existing model repositories (e.g., <https://web.imt-atlantique.fr/x-info/atlanmod/index.php?title=Ecore>) and transform a web model to a relational DB model.

Task A5.3

Define a model-to-text transformation that generates SQL statements for generating SQL tables and queries. By resembling the demo implemented during the lectures, for each entity the M2T should generate:

- a CREATE table statement,
- a SELECT (NOT *) statement,
- a SELECT statement with WHERE *isPK* condition.

For this task, feel free to choose your preferred model-to-text transformation (M2T) language, i.e., Aceleo or EGL