

LAB ON MULTIDIMENSIONAL MODELING AND DESIGN

OBJECTIVES

This lab session consists of two exercises:

1. Multidimensional design:
 - a. Given a set of KPIs and queries, together with the available data sources, create an MD schema design that satisfies the needs.
2. Relational translation
 - a. Given a multidimensional (MD) conceptual schema, translate it into relational.

ACTIVITIES

1. This part of the session consists of two activities:
 - Given the required KPIs and queries, create independent MD schemas, in the indyco builder tool, that satisfy (i.e., that can answer) these information requirements.
 - Given the required MD schemas, consider integrating them:
 - i. you obtain a unified MD schema that satisfies all information requirements at once, and
 - ii. the unified MD schema has the minimal structural complexity (regarding the number of classes, attributes, and relationships).
2. Given a simple multidimensional (i.e., galaxy) schema:
 - Propose a logical database schema (i.e., a set of CREATE TABLE statements) corresponding to that multidimensional schema.

A training example of MD schema design will be available some days before the session.

REQUIRED KNOWLEDGE

- Taught material: Multidimensional modelling and Advanced multidimensional modelling (see the slides section in Moodle).