

Coursework Instructions Milestone 1: Data Requirements and Conceptual Design

The goal of the first part of your IDA project is to

1. identify a collection of sample queries,
2. formulate data requirements for your application,
3. draw an ER-diagram that captures these requirements.

For this milestone, you will have an occasion to apply the material of the lectures on Conceptual Modeling.

In the following, we will describe the single steps in more detail.

Sample Queries

Specify **ten** example queries that you think are of interest in the domain of your application.

You need criteria to decide what to include into the data requirements and what not. A good starting point for developing a database is to identify typical queries that users will pose—either directly or via applications. These queries will be used to direct the formulation of data requirements and to check them for completeness. Write up the queries in plain English. Do not be concerned whether they can actually be expressed in a query language.

Data Requirements and ER Diagram

In reality, the formulation of requirements and the design of the diagram go hand in hand. So, do both in parallel.

Your application should have a size that makes it nontrivial. As a guideline, aim at a diagram of 15 (entities + relationships). The **minimum** size should be

- 13 (entities + relationships).

Write up which of your requirements could not be expressed in the diagram and explain why that was the case.

Presentation in the Lab

For the labs on 19/20 October, each group will be asked to give a presentation with slides on their work for this milestone. Each group will have a slot of approx. 20 minutes. During and after the presentation your fellow students and the teaching assistant will ask questions to identify possible shortcomings in your design and to suggest improvements. So, aim at a presentation of 10 and no more than 12 minutes.

On the day of the lab, no later than 8:30am, send a file with the slides of your presentation to your teaching assistant.

While working on your milestones, do not hesitate to make appointments with your lab tutor to get support.

Deliverables

The deliverable will be a document consisting of three parts:

1. a collection of 10 sample queries;
2. a text with data requirements;
3. an ER diagram and a comment identifying the requirements that could not be captured by the diagram.

Deadline and Submission

The work is to be submitted on Teleacademy (details on the submission will follow).
The deadline is

Monday, 25 October, 11:30 pm.