

SQL Lab: Assignment I (until 07./08.12.2010)

General Information

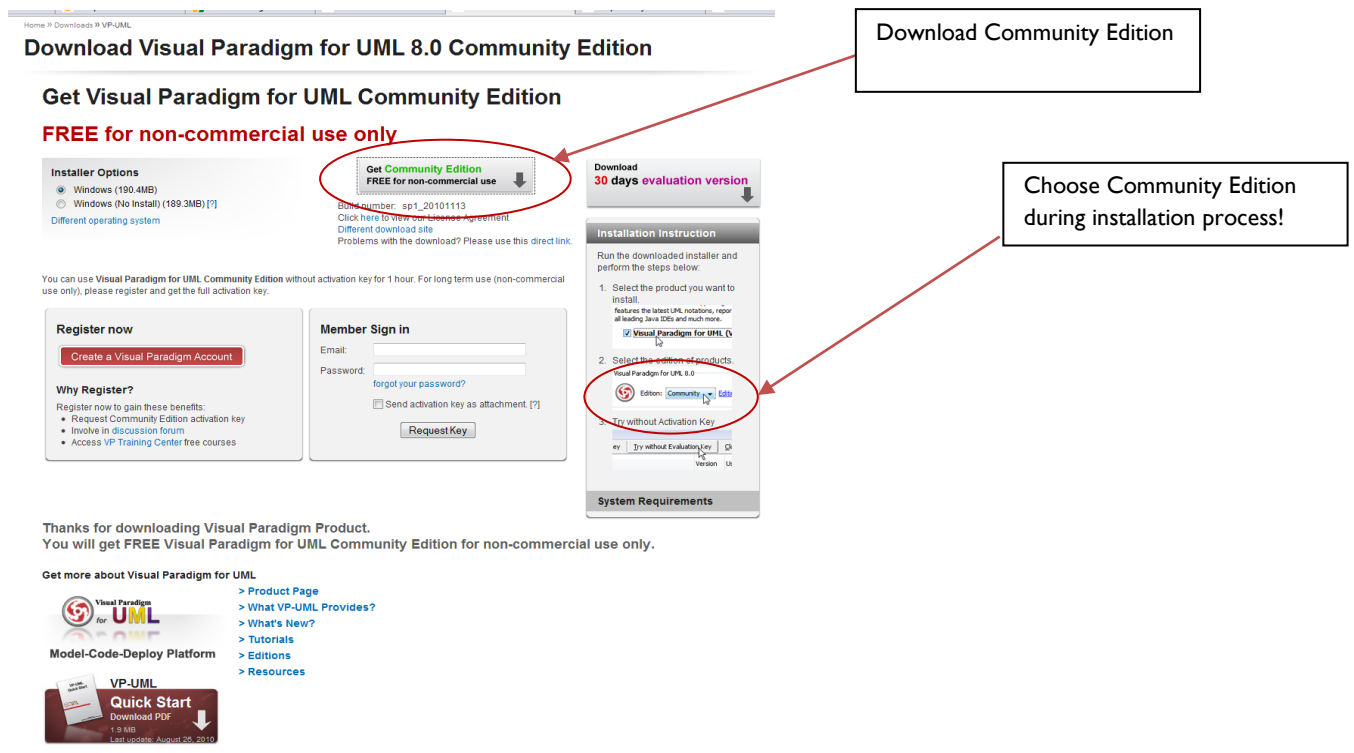
In this lab course, you have to work in teams of two (2) students each.

There are fixed dates for meeting up with your lab tutor for discussion and receiving new assignments, which you have to perform until the next meeting (consult your tutor for details about this).

Tools

During this first task, you will create a larger data model using suitable software tools. In general, you are **free to use any UML modeling tool** you like (drawing UML diagrams by hand is not permitted!).

For example you can use the tool *Visual Paradigm for UML 8.0*. It is available in a Community Edition which is free to use. It can be downloaded here: <http://www.visual-paradigm.com/download/vpuml.jsp?edition=ce>.



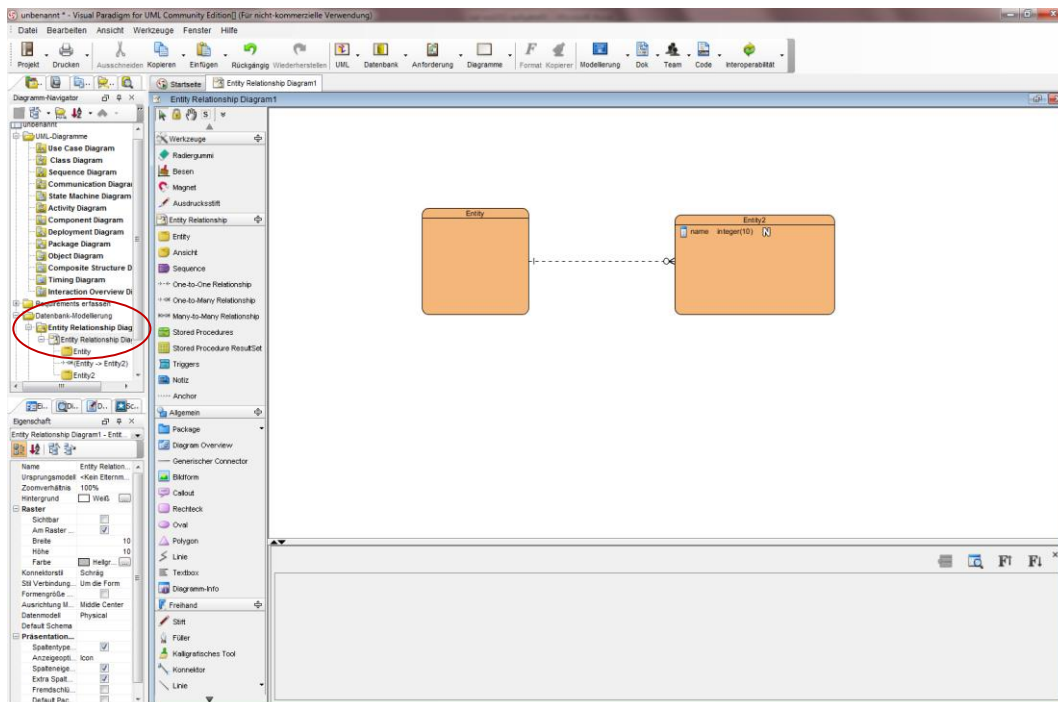
The screenshot shows the download page for Visual Paradigm for UML 8.0 Community Edition. Key elements and annotations include:

- Download Visual Paradigm for UML 8.0 Community Edition** (Page Title)
- Get Visual Paradigm for UML Community Edition** (Section Header)
- FREE for non-commercial use only** (Text)
- Installer Options**: Windows (190.4MB) (selected), Windows (No Install) (189.3MB) [?], Different operating system.
- Get Community Edition FREE for non-commercial use** (Link, circled in red)
- Download 30 days evaluation version** (Link)
- Installation Instruction**:
 - Select the product you want to install. (Visual Paradigm for UML 8.0 is selected)
 - Select the edition of products. (Community Edition is selected, circled in red)
 - Try without Activation Key.
- Register now**: Create a Visual Paradigm Account.
- Member Sign in**: Email, Password, forgot your password?, Request Key.
- Why Register?**: Register now to gain these benefits:
 - Request Community Edition activation key
 - Involve in discussion forum
 - Access VP Training Center free courses
- System Requirements**
- Thanks for downloading Visual Paradigm Product.** You will get FREE Visual Paradigm for UML Community Edition for non-commercial use only.
- Get more about Visual Paradigm for UML**:
 - Product Page
 - What VP-UML Provides?
 - What's New?
 - Tutorials
 - Editions
 - Resources
- VP-UML Quick Start** (Download PDF, 1.9 MB, Last update: August 26, 2010)

Annotations with red arrows and boxes:

- Download Community Edition** (Box pointing to the 'Get Community Edition' link)
- Choose Community Edition during installation process!** (Box pointing to the 'Community' edition selection in the installation instructions)

After installing create a new project and use an Entity Relationship Diagram for modeling task.



General Task

Use an UML Tool to model the mini-world described below. Keep several things in mind:

- You will later hand in your assignment on **A4 paper**. As your data model will be quite large, paper space will probably not suffice. Consider creating several diagrams showing different aspects or detail levels of your model.
- Use the package feature of UML (a package bundles several classes into a group). It may be a good idea having an overview diagram showing how packages relate to each other and then more detailed diagrams per package.
- Your tutor as well as your fellow students should be able to understand your model. Use comments, notes, and additional documentation!
- Keep in mind that most modeling tools use an internal data model containing all classes, associations, etc. Reuse parts of the model instead of creating new ones, if a class/package appears in multiple diagrams.
- Model attributes. Use default data types like string, integer, date, etc. whenever possible.

How to successfully pass the course

During the SQL lab, there will be six assignments to be worked on; the results of each team have to be handed in and will be graded by the team's tutor. There will be three possible grades: "+1" (good), "0" (average), and "-1" (incomplete, insufficient, or missing). To successfully pass the SQL lab, the sum of all six grades must be positive (> 0).

Task for the first week

Scenario A

Your task is to create a database for the rating system of the Internet Movie Database IMDB (<http://www.imdb.com>). Keep in mind that only registered users are allowed to vote.

In order to perform this task, review carefully the web pages of IMDB (you may ignore IMDBpro features) and try to figure out which classes are needed and how they are related.

In particular, take care of the issues illustrated by the following examples:

- Movie: <http://www.imdb.com/title/tt0064177/>
 - Please model people (full cast and crew, including roles: see e.g., <http://www.imdb.com/title/tt0477080/fullcredits>), storyline infos, reviews, and recommendations (<http://www.imdb.com/title/tt0458352/recommendations>)
 - Keep in mind that there might be persons having the same name. Of course, this problem also applies to movies, roles, etc.
 - Also please note that a movie may have different titles (differing with respect to language, country, movie version, etc.)
- Ratings: <http://www.imdb.com/title/tt0064177/ratings>
 - IMDB has users, users may rate a movie / TV show
 - Keep in mind that users have a sex, an age, etc.
- TV Series: <http://www.imdb.com/title/tt0101076/>
 - Skip the same features already skipped for movies
 - Pay attention to seasons (<http://www.imdb.com/title/tt0101076/episodes#season-1>) and episodes (<http://www.imdb.com/title/tt0554727>)!
- Persons: <http://www.imdb.com/name/nm0001569>
 - Skip Contact, StarMeter, Awards, Trivia, NewsDesk, Photos
 - Pay special attention to Filmography: A person may be involved in several movies in different roles!
- Movie Connections: <http://www.imdb.com/title/tt0076759/movieconnections>
- Fictional Characters / Roles: <http://www.imdb.com/character/ch0000007>