

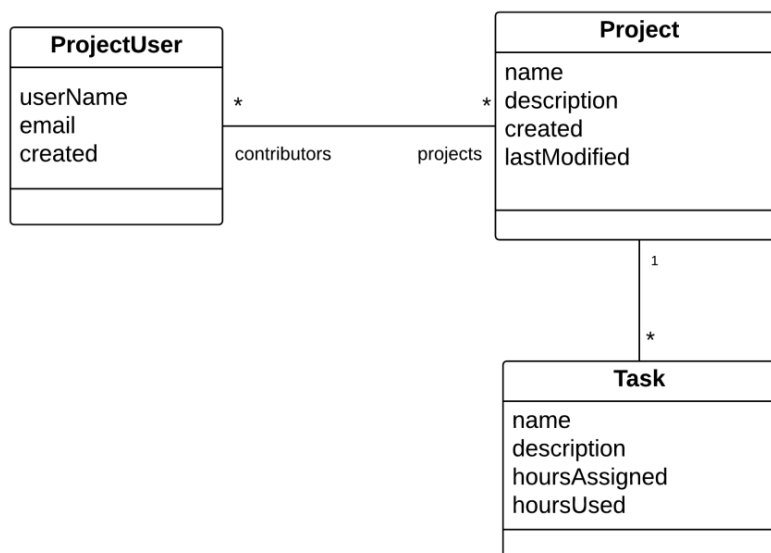
# Persistence with JPA

## General part

- Describe how you have handled persistence in the last three semesters.
- The considerations should include all relevant layers. File IO, Relational Databases, local storage and cookies in browsers.
- Explain the Pros & Cons in using an Object Relational Mapping Framework
- Elaborate on some of the problems a ORM tries to solve
- Explain the basic “components” involved when using Java’s JPA

## Practical part

The model below is an initial model for a system than can handle *Users* and *Projects* assigned to *Users* (contributors to the project). A project can have a number of assigned *Tasks*.



- 1) Examine and understand the diagram. Use Object Relational Mapping (using JPA) to implement the OO classes and the corresponding Database Tables.
- 2) Create a façade class and implement as many of the methods below as you have time for (not necessarily in the order given):
  - Create user
  - Find user
  - Get all users
  - Create project
  - Assign user to project
  - Find project
  - CreateTaskAndAssignToProject
  - Etc.