

Large Scale and Multi-Structured Data Bases
University of Pisa
Academic Year 2019-2010
Workgroup Task 0

Title: Designing and Implementing a simple JAVA application connecting to a relational DB

Minimum Requirements:

1. The DB should contain at least 3 tables
2. A set of CRUD (Create/Insert, Read, Update and Delete) operations must be performed on the DB using JAVA code.
3. Specific Use Cases must be defined considering 1 and 2 requirements
4. Define simple ER diagram of the Database
5. Define an interface for user interaction with all the functionalities of the application (the application must not be compiled each time for showing different functionalities).
6. Test the application with all the use cases defined in 3

As a first step, the group must **submit a page describing the main specification** and requirements of the application. This document has to describe:

- 1) the actors that will interact with the application
- 2) the main functionalities offered by the application
- 3) the dataflow that will be handled by the application
- 4) a brief idea of the software architecture.

This first document must be approved by the teacher.

The group must write a report describing the design, implementation and test steps carried out. The source code and a database dump must be uploaded on the e-learning Platform. The report must be brief and mainly composed by diagrams, graphs, tables, draws, schemes, examples of usage.

All the artifacts (specification document, report, code, database dump and executable files) must be uploaded **only by the reference person** of the group. Avoid multiple uploads.

Groups **may use git archive**. In this case, the reference person must specify the address to download the repository. Please upload documentation always on the e-learning platform.

The other members of the group have just to **upload a simple text** file with following statement: "The artifacts have been uploaded by the reference person on <specify the date>".

Deadline: October 15, 2019.

Only for this task: **it is not a mandatory task**, thus the group may decide to skip it. If required, the teacher will handle the task as a regular task and will provide feedbacks. In any case, the task will **not receive a mark** and will not be taken into consideration for the final examination.