

Assignment for Access Lab – MGIS 301

Fall 2009

Due Date: Dec. 4, 2009 (9:00 AM)

Points: 5

Goal: You should develop a new database for a company that wants to keep track of its employees' trainings.

The company puts heavy emphasis on training the employees, and therefore has started up a training center. For this, they need a database. The company maintains data on employees like name, address, e-mail, birthday, gender, salary etc. The company has also developed a list of skills. There is a set of courses (with a code and description), each course can be taken by employees (at a certain date and with pass/fail), and each course is linked to one or more skills (by taking this training, you will get a certain skill). Also, some courses can have others as prerequisites. For each employee, it is stored which skills at which level he or she possesses. There is also a list of instructors, who give the courses. For each one, data similar to employees is stored. Each course is given by one instructor at a certain date, and for that he gets paid a certain amount (which can change for each date). The company has also developed programmes (with a certain name and description), which consist of a number of courses. Employees can also register for these programmes. Each course can appear in several programmes.

For this company, set up the database structure (i.e. define the tables and set the necessary relationships). It is suggested that you start by developing an ERD model of the situation, and then translate into a relational model (it is not necessary to hand in the ERD). For some tables, you might want to add an attribute as unique identifier not mentioned in the text. For each table you have, add at least 10 different rows (e.g. 10 employees, 10 courses etc.).

You should implement the following queries:

1. List for each instructor the number of courses he gave and his total income.
2. List for each course the average age of employees taking it, and the percentage of passes.
3. List the number of people which possess each skill, and their mean salary.
4. List the mean salary of people participating in each programme.
5. List for each course and instructor the number of people passing and failing (or the percentage of passing, e.g. course A by instructor 1 50%, course A by instructor 2 90%, course B etc.).

In addition, your database should have two forms, one for adding a new course, and one for adding a new registration (employee registers for a course).

Also prepare one report on a topic that seems relevant to you in this database.

Handing in the assignment: Hand in the assignment using e-mail to <skoch@ku.edu.tr> or upload it to the F-Volume The e-mail should have a subject as follows: ACCESS <your last name> (e.g. ACCESS Koch). As attachment, include your database (.mdb or .accdb file), which should be named <your last name>.mdb (e.g. koch.mdb).

Grading: Grading depends on completely and correctly implementing the requirements as defined above (which means your database file should include all tables, queries etc., and they should be correct). For assignments handed in late, one point for the first day of delay will be deducted (resulting in maximum 4 points that can be achieved), two additional points for the

next day (resulting in maximum 2 points that can be achieved), and after three days, no points will be given.