## **Assignment 1: Working with a Relational Database**

Dr. Martin Hepp, <a href="mhepp@computer.org">mhepp@computer.org</a> Phone (239) 590-7311

**Note:** You may solve this assignments in teams consisting of up to three students. In this case, submit only ONE solution but list all involved students and their e-mail addresses.

**Required Tools:** Microsoft Access 2000 (available on campus, part of MS Office), Internet access, possibly access to the library.

Check out the FGCU tutorial for MS Access: http://www.fgcu.edu/support/office2000/access/

**Situation:** A company wants to create an online employee directory. The company has decided to create the underlying database in-house, and it is your job to do this.

You may use (and will very probably need) additional literature or the MS Access online help to perform this task. This could include doing research on the Internet, getting books from the Library, etc. The only thing you must do is list the sources you have used in the final document (e-mail, see below for details).

- 1. Create a new table in MS Access. The name of the database file MUST be "FirstnameLastname.mdb" (e.g., my file would be MartinHepp.mdb). Create one table in this database. This table shall contain fields for the following attributes:
  - First name
  - Middle initial
  - Last name
  - Year of birth (just numbers)
  - Department (1 character, can be "S" for sales, "M" for manufacturing, "R" for research and development, or "A" for accounting/finance)
  - SSN (without dashes etc., just a number; e.g. 123-45-7689 will be stored as 123456789)
  - E-mail (text)
  - Phone extension (just numbers, 4 digits)

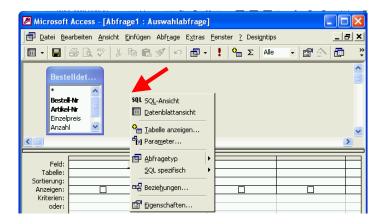
## 2. Insert the following three entries to this database table:

| Frank  | Lloyd | Wright    | 1867 | R | 444-23-5556 | flw@                 | ext.         |
|--------|-------|-----------|------|---|-------------|----------------------|--------------|
|        |       | _         |      |   |             | franklloydwright.org | 1234         |
| Thomas | Alva  | Edison    | 1847 | R | 122-66-1289 | thomas@edison.net    | ext.<br>5542 |
| John   |       | Steinbeck | 1902 | A | 435-23-2458 | steinbeck@aol.com    | 5672         |

3. Insert your name and details (for security reasons, do NOT use your true Social Security number, but a dummy number ("123-45-5678") instead) as a new entry.

- 4. Create a new database query that will yield
  - the last name.
  - the e-mail-address, and
  - the extension
  - of all employees working in Research and Development ("R").
- 5. Click the right mouse button in the grey shaded area of the query (see below). You will see the option "SQL view". Click on that option and copy the SQL statement to the clip board. Such a SQL query is usually in the form

SELECT field1, field2 FROM source WHERE selection criteria



- 6. Paste the text of your SQL statement to a new e-mail (as plain text in the text area).
- 7. Add your Access file "FirstnameLastname.mdb" (which must contain the table and the query) as an attachment to this new e-mail.
- 8. Make sure that your e-mail contains the SQL statement AND the attachment.
- 9. Add a list of the sources you used for your work (WWW links, books, etc.).
- 10. Send this e-mail to my e-mail account mhepp@computer.org

The deadline is October 4, 2004 at 6:00 p.m. No late assignments will be accepted!

If you have any questions, please do not hesitate to contact me.