Lab 9

The database of the car rental company has the tables: **customers** (with the variable *nr_customer* that identifies a customer in a unique way), **rental** (with the variable *nr_rental* that identifies a rental in a unique way), **rental_offices** (with the variable *nr_place* that identifies a rental office in a unique way), **employees** (with a variable *nr_employee* that identifies an employee in a unique way) and **cars** (with the variable *nr_car* that identifies a car in a unique way).

9.1 (a) Find the rental office with the largest number of rentals between January 1, 1999 and June 6, 1999.

(b) Find the names of the clients who have been renting cars more than once and have rented an Opel at least once.

(c) For each rental office pick those cars that have been rented between October 1, 1998 and December 31, 1998 (for each rental office list the cars in the ascending order with respect to the length of the rental).

(d) Find the names of those clients that have rented cars more than once and each time have rented cars of different makes.

(e) Give the list of the employees that had not been involved in any car rental between October, 1999 and February, 2000.

(f) For the rentals in which the pick-up and return of the car were made in different rental offices, find the names of the employees involved in the rentals.

(g) Find the employee who had been hired before 1998 and produced the highest profit to the company in 1999.

(h) Present history of the rentals of the car with the code 000003 (pick-ups dates, return dates, names of clients, costs of rentals).

9.2 The data set **measurements** contains measurements made with instruments *instrument* in some days of January 2007. For each pair (*instrument*, *date*) from **dates** find the closest (in time) measurement (the variable *measurement*) from the data set **measurements**.

9.3 **(Table look-up II)** Solve Problem 2 from Lab 7 with `PROC SQL`.

9.4 Write a query that imitates the following DATA STEP:

```
data razem;
merge a(in = ina) b(in = inb);
by a b c;
if inb;
if inb and not ina then indyk=1;
run;
```

9.5 The data set **students** has the variable that identifies students uniquely (*id_student*) and the variable (*id_class*) with the codes of the courses attended by students. For every student find those other students that attend the courses from the list of her/his courses.