Exercise Sheet 2

Type your solutions into a file ex2.sql and submit it by next Monday, 22nd October by 4pm.

Question 3: Continued from last exercise sheet.

You must complete the exercise 3 from the last Exercise Sheet before you work on this.

h. Develop a query which employs "EXCEPT ALL" to find all those courses which appear more than once *for the same year* in "lecturing". What is the reason for the repetition?

Question 4: Aggregation

a. Write a query to list all courses (by their identifier "cid") and the average enrolment over the years. Modify the query so that it also lists the number of different staff members (as identified by "sid") involved in teaching it.

b. Develop a query which employs "GROUP BY" to find the courses which appear more than once *for the same year* in "lecturing". Does this match the answer to the previous question? Why not?

Question 5: Nested queries

a. Which courses (listed by their course title) were taken by students in 2003, judged by the existence of students taking their exams?

b. Which courses had students taking their exams in 2003 even though they were not taught in 2003?

c. Develop a query which lists those courses (by their course code "bc") which (in 2005, say) had a higher average mark than the overall average. This should be a general query and not contain the overall average explicitly as a numeric constant.

d. List the staff members who did not do any lecturing.

Question 6: From the May 2005 exam.

a. List all students (by registration number) who failed the course '06 02525' in 2004.

b. Compute the number of students and the number of courses for which marks are recorded in "allmarks04" *in a single query*.

c. What was the percentage of first class marks overall in 2003?

d. List all courses and their average mark for 2003 and for 2004 *in a single query*. (Ignore those courses which were only examined in one of the two years.)

e. Adapt your query from the previous question so that it only lists those courses where in both years there were at least 100 students taking the exam.