

## Updates and Queries Using SQL (#5)

Code and test the SQL statements needed to generate the following queries. You should use the DBMS installed on your machine and a SQL client for this. Place, in comments, any discrepancies that you found between the two that were not covered in class. When these are complete place in a single text file and insert comments to identify yourself and the problem number for each query. When there is a query, you should put in a comment how many rows matched the query. Email the results to the instructor.

1. Horrors! We have found out that Hannah Pattern is an assumed name of a known terrorist. In order to avoid problems with Homeland Security we are going to falsify our data by removing all mention of her from both the students and grades files. What happens if we remove the student record first?
2. An error has been made in a faculty name. Kerry Gregoryk's first name was misspelled. Update that row in the faculty table.
3. An omission has been found! Several courses have been left out and this needs to be rectified. Add the following to the list of courses. Moreover, you should update the C\_Teach relation as well. Susan Rock should teach the new Math classes and Kerry Gregoryk the new CIS classes.

|      |     |   |                                |
|------|-----|---|--------------------------------|
| MATH | 490 | 3 | Teaching Secondary Mathematics |
| MATH | 321 | 3 | Probability and Statistics     |
| CIS  | 276 | 3 | Business Languages             |
| CIS  | 370 | 2 | Enterprise Systems             |
| CIS  | 380 | 4 | System Analysis and Design     |

4. The energy crisis has struck! The president has imposed an extra \$10.00 surcharge. Add ten dollars to every student's balance. (This is not the same as setting their balance to ten dollars.)

After the above modifications do the following queries.

5. Find the count of all students who are enrolled in a Physics course.
  
6. Find the number of credit hours each faculty member is teaching in the CIS department.
  
7. Find the sum of balances of every student who is taking a CIS class. No student should be counted twice, even if taking multiple CIS classes. What is the resulting sum?