

Transact SQL Programming

Create a Transact-SQL program that will find the average score of each class with the count of the students. Although this can be done with a simple query:

```
select g_dept, g_course, avg(g_score), count(*)  
from grades  
group by g_dept, g_course
```

You are not allowed to do this. Instead you are to accumulate the data in variables, use a query with a cursor, use a while loop to process the cursor and print to display. The only SQL SELECT clauses you may use in this query are FROM, WHERE and ORDER BY. (You should only need the WHERE for the debugging process to limit the number of rows.)

In addition you should find the high score of that class. You should display the student name and their score.

Output should be similar to the following:

```
CS 221 had 9 students with an average score of 76  
Sally Daly received 88 in CS 221  
CS 370 had 8 students with an average score of 82.8  
Sally Daly received 97 in CS 370  
CS 372 had 4 students with an average score of 72.75  
David Chen received 78 in CS 372
```

However, the number of digits after the decimal in the average is unimportant.

One hint: When the department and course number changes, you should then display the current counts and averages and zero them for the next step. Do not forget to do this one last time after you exit the loop.

Finally, there should be one trailer line that shows the count of the students and a grand total average of all grades.