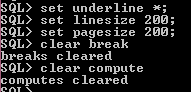
**IST471**

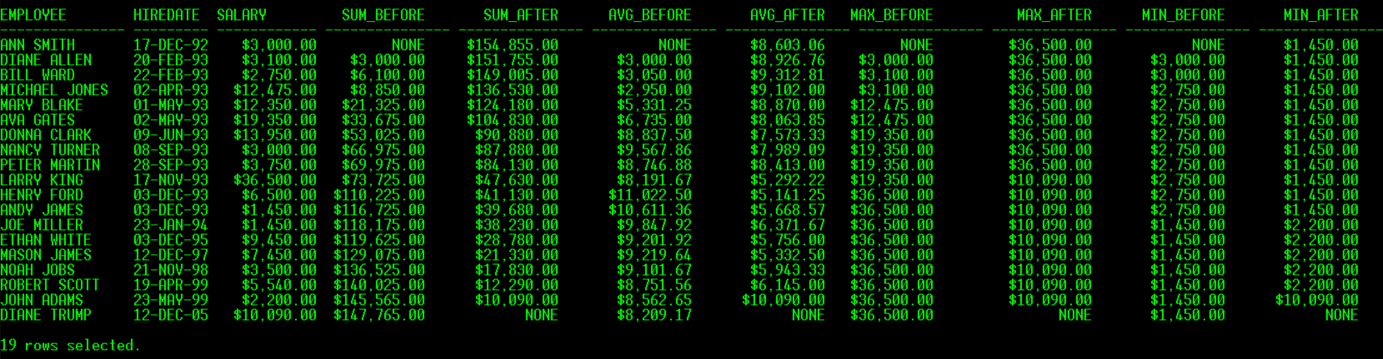
**Lab 5 (45 points)**

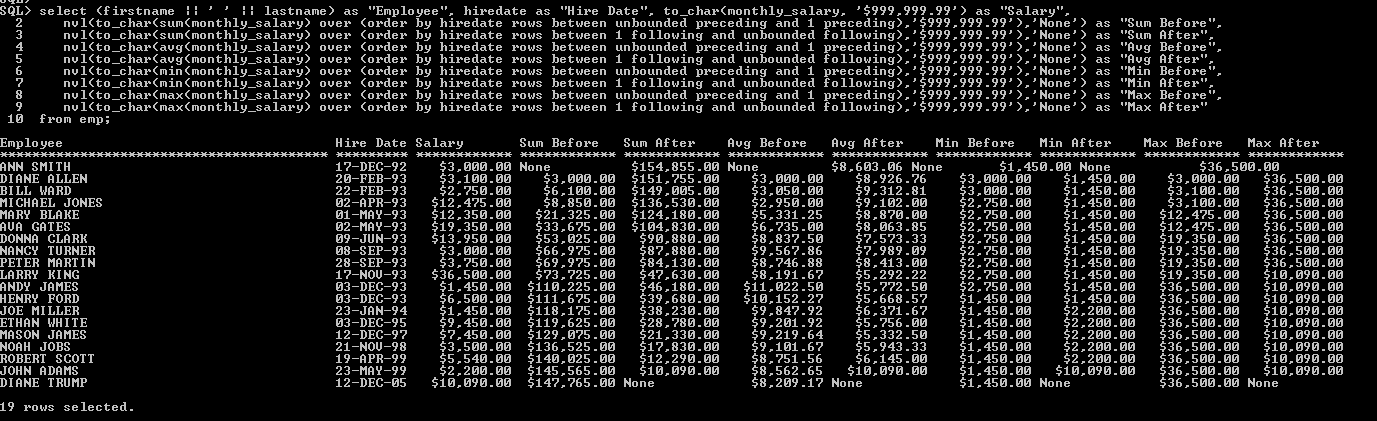
**SQL Analytic Functions – Windowing**

*Note: Before beginning the following were inserted…*



1. **(10 points) Create an analytic query to identify the following payroll figures:**
2. SUM\_BEFORE: the sum of salary values before the current row
3. SUM\_AFTER: the sum of salary values after the current row
4. AVG\_BEFORE: the average of salary values before the current row
5. AVG\_AFTER: the average of salary values after the current row
6. MAX\_BEFORE: the highest salary value before the current row
7. MAX\_AFTER: the highest salary value after the current row
8. MIN\_BEFORE: the lowest salary value before the current row
9. MIN\_AFTER: the lowest salary value after the current row

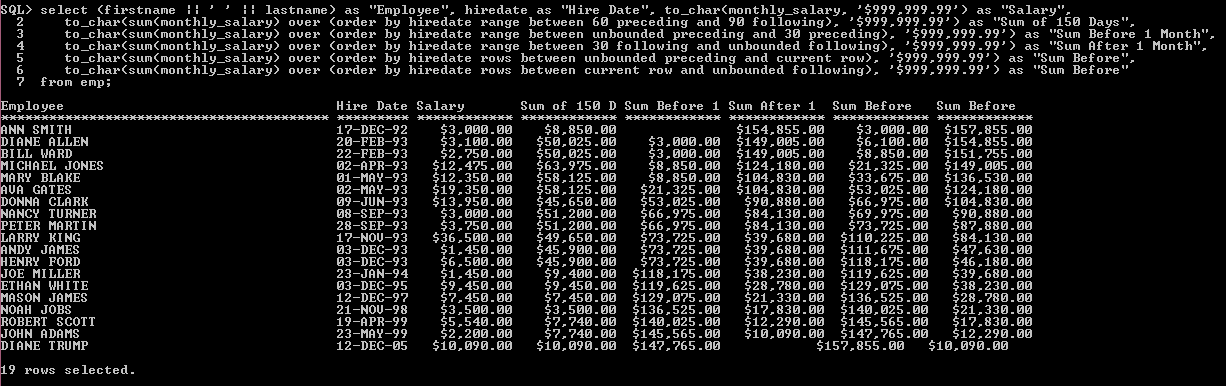




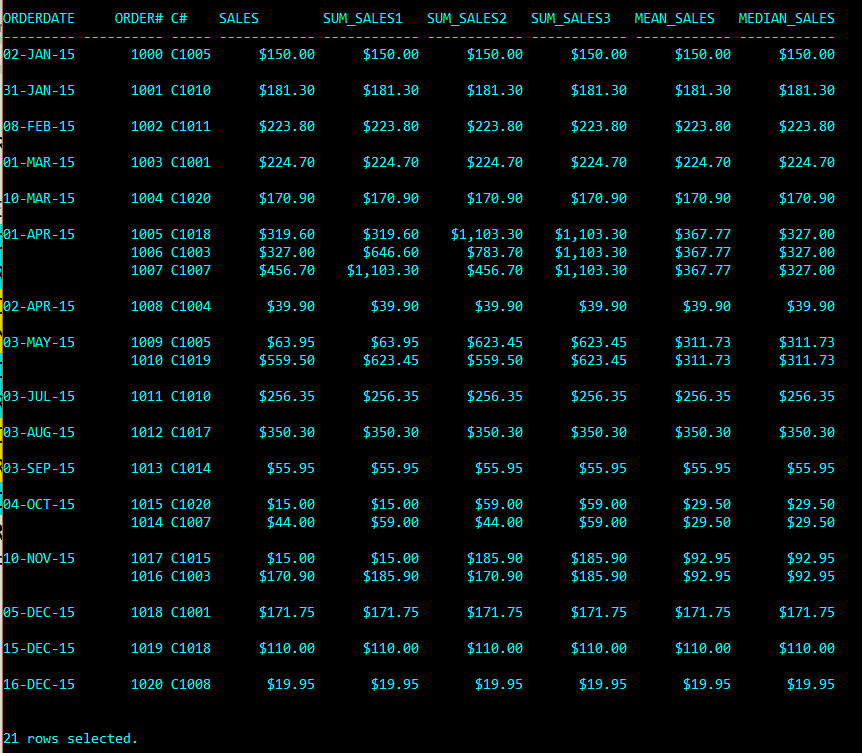
1. **(10 points) Create an analytic query to compute the following sums of salaries:**

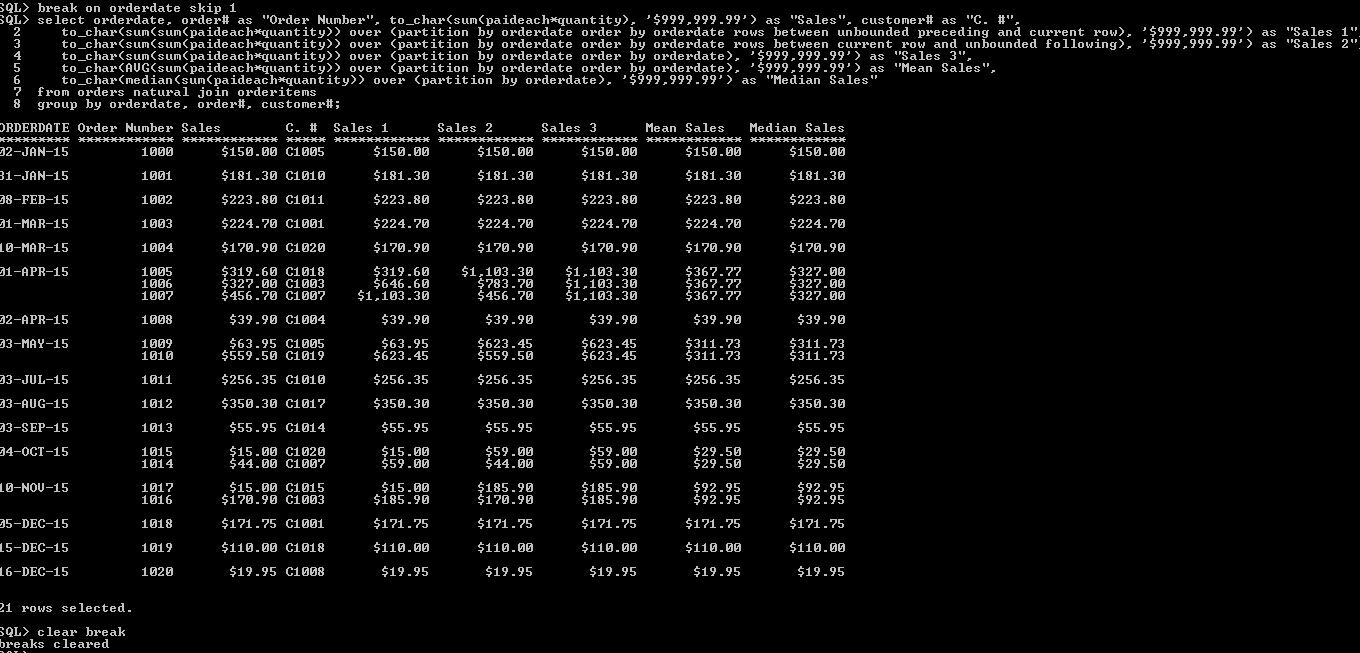


1. SUM\_150D: the sum of salaries paid two months before and three months after the current row
2. SUM\_BEFORE1M: the sum of salaries paid 1 month before the current row
3. SUM\_AFTER1M: the sum of salaries paid 1 month after the current row
4. SUM\_BEFORE: the sum of salaries paid before the current row
5. SUM\_AFTER: the sum of salaries paid after the current row

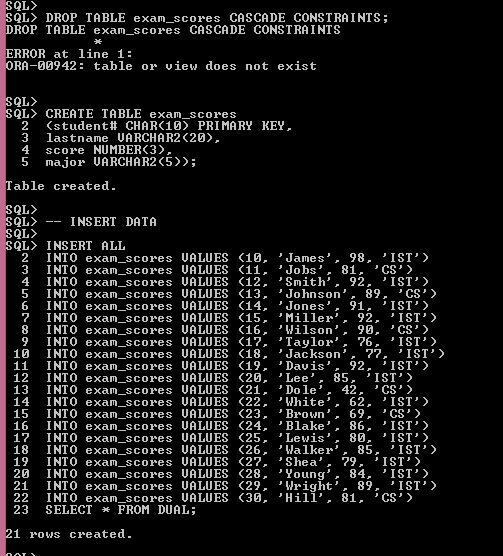


1. **(10 points) Create an analytic query to computer various sums of sales partitioned by the order dates. The output should include the following data:**
2. Order date
3. Order#
4. Sales of each order. Sales = SUM(paideach\*quantity)
5. SUM\_SALES1: running sum of sales for each order date
6. SUM\_SALES2: reverse running sum of sales for each order date
7. SUM\_SALES3: sum of all sales on each order date
8. MEAN\_SALES: mean sales on each order date
9. MEDIAN\_SALES



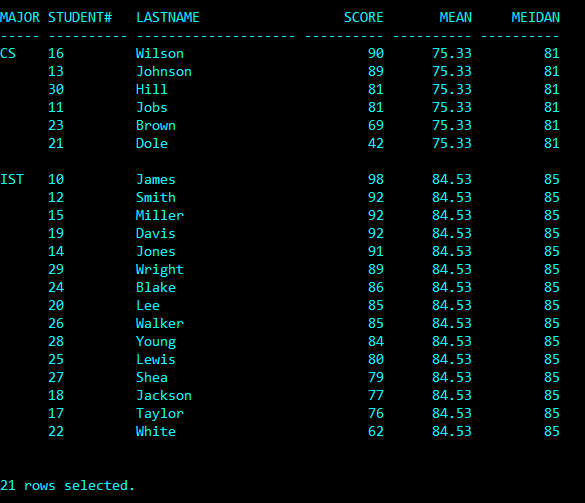


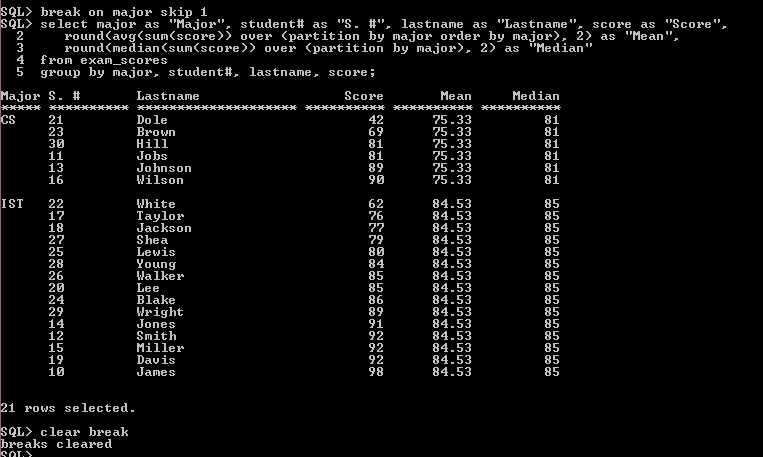
1. **(15 points) First load the dataset, "Exam\_Scores.sql" to your SQL program.**



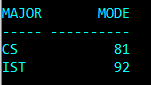
**There are 15 IST students and 3 CS students taking the exam for Data Analytics Competitive. Compute the "3M" measures (i.e.,mean, median, and mode) based on their exam scores.**

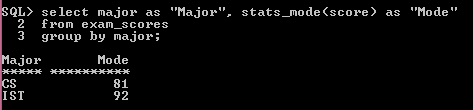
* 1. **Create a query to list each student's score and compare each score with the mean and median for each major of students.**





* 1. **Figure out the mode of exam scores, one for each major**





**4.3 Add a new record for another IST student (#31, Gates). His score is 85. Now you have two modes for IST. Write a query to display these two modes shown as below:**

