# SQL Peer Learning Documentation

**Q1)  Given a table of employees, find the number of male and female employees in each department:**

**Rohit's Approach:**

He Created a procedure named `getNumMaleFemale()`  to get the number of males and females.

The procedure has the following properties:

- if Department entry in employees table is null,then added gender details as Not Assigned
- He grouped the table bases on Departments
- Used Case and Then on the following
- incrementing the count by 1 whenever male entry is found
- incrementing the count by 1 whenever female entry is found
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- Finally calling the procedure to get number of males and females department wise

**Amit's Approach**

I think he has not written the query as per the Question. He simply grouped the table based on department and found the total count of gender corresponding to it.

**Q2) Given a table with salaries of employees for different month, find the max amount from the rows with month name:**

**Rohit's Approach:**

He Created a procedure named `maxAmount()` to get the desired output
The procedure has the following properties:

- Selects data from a table and finds the maximum value from the columns "Jan", "Feb", and "March" and stores it in the "value" column.
- Determines the month corresponding to the maximum value using the "field" function, which returns the index of a value in a list of values, and stores the result in the monthNum column.
- Uses a "CASE WHEN" statement to convert the monthNum column into the month name (Jan, Feb, or Mar) and returns the result in the "Month" column.

**Amit's Approach**

He has written a query using Case and Then, first selecting the greatest value out of Jan, Feb, and March as Value, and then Month name with the corresponding greatest value as Month.

**Q3) Given the marks obtained by candidates in a test, rank them in proper order.**

**Rohit's Approach**

He Created a procedure named `getRank()` to get the desired output
The procedure has the following properties:

- Has the DENSE_RANK() function to determine the rank of a value in
  a group of values based on the order by marks as descending order
  in the OVER clause.

- concat the ids if students marks is same


**Amit's Approach**

He has done it without using procedures

- Used DENSE_RANK() function to determine the rank of a value in a
  group of values based on the order by marks as descending order in
  the OVER clause.

- concat the ids if students marks is same


**Q4) If same value is repeated for different id, then keep the value that
has smallest id and delete all the other rows having same value:**


**Rohit's Approach:**

He created a Procedure named `DelDuplicateExceptSmallestID
()` to keep the value that has the smallest id and delete all the other rows
having the same value.The PRocedure has the following properties-

- Performing inner join on the tables and fetching the candidate id having duplicate entries and greater in value.

- These duplicated ids are then deleted from the table using the DELETE clause.

**Amit's Approach**

He didn't delete the candidate ids from the table as said.
Instead printed the duplicated ids having minimum value using MIN and ORDER BY and GROUP BY clause.