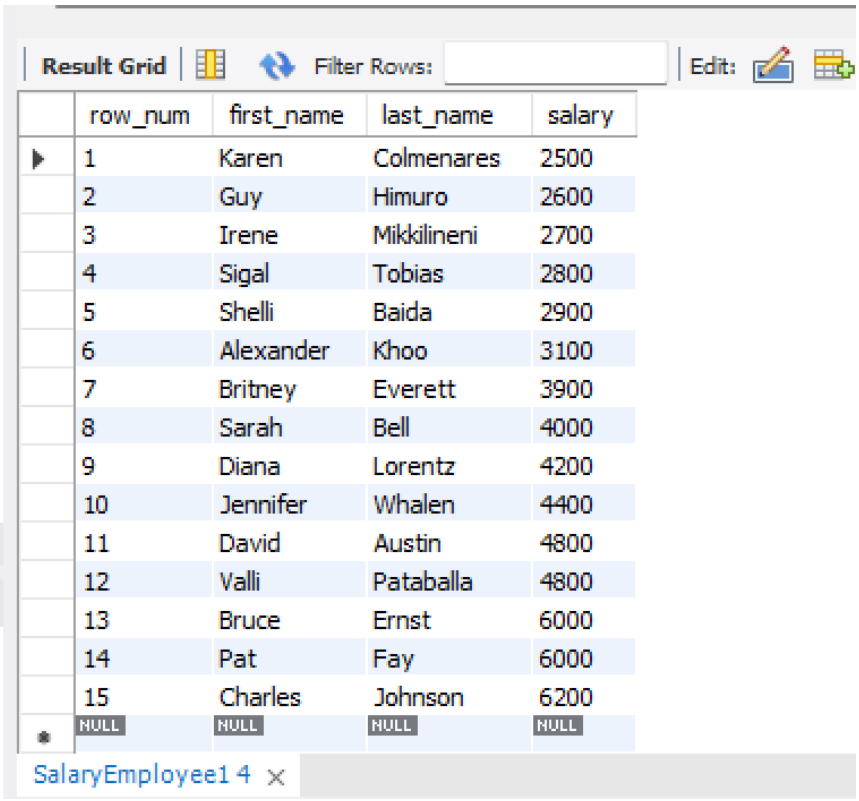
Homework 1.3: SQL Advanced window functions

(In groups of three, only one submission is required, but it should include all members' individual contributions)

Using the dataset provided below, write the SQL queries, and screenshot the output for each of the window features given in the query (**Assume: Order by Salary ASC**).



row_num	first_name	last_name	salary
1	Karen	Colmenares	2500
2	Guy	Himuro	2600
3	Irene	Mikkilineni	2700
4	Sigal	Tobias	2800
5	Shelli	Baida	2900
6	Alexander	Khoo	3100
7	Britney	Everett	3900
8	Sarah	Bell	4000
9	Diana	Lorentz	4200
10	Jennifer	Whalen	4400
11	David	Austin	4800
12	Valli	Pataballa	4800
13	Bruce	Ernst	6000
14	Pat	Fay	6000
15	Charles	Johnson	6200
NULL	NULL	NULL	NULL

1. Write a query to compute for the **FIRST_VALUE()** given the above dataset and return the value along with the entire row.
2. Write a query to compute for the **LAST_VALUE()** and return the value along with the entire row.
3. Write a query to compute for **LEAD(2)** for Guy and return the value along with the Guy's row.
4. Write a query to compute for **LAG(4)** for Pat and return value along with Pat's row.
5. Write a query to compute the **RANK()** and **DENSE_RANK()** and return the entire dataset, including the rank and dense rank for each employee.
6. Write a query to compute the **RANK()** and **DENSE_RANK()** but only return Valli's and Bruce's rank and dense rank.
7. Write a query to compute the **ROW_NUMBER()** for Irene and Sarah and only return the rows corresponding to them.
8. Write a query to compute the **PERCENT_RANK()** and return the entire dataset, including the percent rank for each employee. Format your PERCENT_RANK() values to 100%.
9. Write a query to compute the **CUME_DIST()** and return the entire dataset, including the percentage rank for each employee. Format your CUME_DIST() values to 2 decimal places.

10. Write a query to compute the **NTILE(4)** and return the entire dataset showing approximately equal groups/buckets.

Submission requirements:

- the query statements.
- the SQL commands.
- query result/output (screenshots).
- Submit as a single PDF file via the submission link on the Blackboard.

Deadline: 9th July 2023 Time: 23h59 (Chicago Time).

END