

# HW 1.5

**OLAP**

**Aggregate Window Functions**

# Use Window functions

- Value window functions
  - FIRST\_VALUE( ) , LAST\_VALUE( )
  - LEAD( ), LAG( ) *// value in Nth next/previous row*
- Ranking window functions
  - RANK( ) *// row position in order (gaps after ties)*
  - DENSE\_RANK( ) *// row position in order (no gaps)*
  - ROW\_NUMBER( ) *// absolute position in order*
  - PERCENT\_RANK( ) *// (rank-1)/(numRows - 1)*
  - NTILE( ) *// e.g., which quartile, which quintile, etc.*
  - CUME\_DIST( ) *// proportion of rows preceding*

## Give the answers (assume ORDER BY salary)

- FIRST\_VALUE() = [give row num as answer]
- LAST\_VALUE() = [give row num as answer]
- LEAD(2) for Guy = [give row num as answer]
- LAG(4) for Pat = [give row num as answer]
- RANK() for Vali = [give value]
- RANK() for BRUCE = [give value]
- DENSE\_RANK() for Vali = [give value]
- DENSE\_RANK() for BRUCE = [give value]
- ROW\_NUMBER() for Vali = [give value]
- ROW\_NUMBER() for Bruce = [give value]
- PERCENT\_RANK() for Vali = [give value]
- NTILE(4) = [give ranges of row numbers]
- CUME\_DIST() for row 3 = [give value]
- CUME\_DIST() for row 12 = [give value]

row_num	first_name	last_name	salary
1	Karen	Colmenares	2500.00
2	Guy	Himuro	2600.00
3	Irene	Mikkilineni	2700.00
4	Sigal	Tobias	2800.00
5	Shelli	Baida	2900.00
6	Alexander	Khoo	3100.00
7	Britney	Everett	3900.00
8	Sarah	Bell	4000.00
9	Diana	Lorentz	4200.00
10	Jennifer	Whalen	4400.00
11	David	Austin	4800.00
12	Valli	Pataballa	4800.00
13	Bruce	Ernst	6000.00
14	Pat	Fay	6000.00
15	Charles	Johnson	6200.00