SQL TIPS AND TRICKS

PART 25

Adv. SQL WINDOW FUNCTIONS

First_Value(), Last_Value()

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Example--

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_id	emp_name	department_id	salary	manager_id	dept_name	gender	age	dob
1	Ankit	100	11000	4	IT	female	24	2000-09-01
2	mohit	100	16500	5	IT	female	27	1997-05-07
3	vikas	100	22000	4	IT	female	30	1994-08-05
4	rohit	200	30000	2	Marketing	male	30	1994-08-05
5	mohit	200	12000	6	Marketing	male	24	2000-09-01
6	agam	200	14400	2	Marketing	male	24	2000-09-01
7	anam	200	14400	3	Marketing	male	24	2000-09-01
8	ashish	200	6000	5	Marketing	male	20	2003-12-12
9	vikas	300	15000	4	NULL	male	27	1997-05-07

```sql
-- first values
SELECT *,
FIRST_VALUE(emp_name) OVER(PARTITION BY department_id ORDER BY age) AS youngest_emp
FROM emp;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_id	emp_name	department_id	salary	manager_id	dept_name	gender	age	dob	youngest_emp
1	Ankit	100	11000	4	IT	female	24	2000-09-01	Ankit
2	mohit	100	16500	5	IT	female	27	1997-05-07	Ankit
3	vikas	100	22000	4	IT	female	30	1994-08-05	Ankit
8	ashish	200	6000	5	Marketing	male	20	2003-12-12	ashish
5	mohit	200	12000	6	Marketing	male	24	2000-09-01	ashish
6	agam	200	14400	2	Marketing	male	24	2000-09-01	ashish
7	anam	200	14400	3	Marketing	male	24	2000-09-01	ashish
4	rohit	200	30000	2	Marketing	male	30	1994-08-05	ashish
9	vikas	300	15000	4	NULL	male	27	1997-05-07	vikas

```sql
-- last values
SELECT *,
LAST_VALUE(emp_name) OVER(PARTITION BY department_id ORDER BY age)AS oldest_emp
FROM emp;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_id	emp_name	department_id	salary	manager_id	dept_name	gender	age	dob	oldest_emp
1	Ankit	100	11000	4	IT	female	24	2000-09-01	Ankit
2	mohit	100	16500	5	IT	female	27	1997-05-07	mohit
3	vikas	100	22000	4	IT	female	30	1994-08-05	vikas
8	ashish	200	6000	5	Marketing	male	20	2003-12-12	ashish
5	mohit	200	12000	6	Marketing	male	24	2000-09-01	anam
6	agam	200	14400	2	Marketing	male	24	2000-09-01	anam
7	anam	200	14400	3	Marketing	male	24	2000-09-01	anam
4	rohit	200	30000	2	Marketing	male	30	1994-08-05	rohit
9	vikas	300	15000	4	NULL	male	27	1997-05-07	vikas

```sql
SELECT *,
LAST_VALUE(emp_name) OVER(PARTITION BY department_id ORDER BY age
                    ROWS BETWEEN CURRENT ROW AND UNBOUNDED FOLLOWING)AS oldest_emp
FROM emp
ORDER BY department_id ,age;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_id	emp_name	department_id	salary	manager_id	dept_name	gender	age	dob	oldest_emp
1	Ankit	100	11000	4	IT	female	24	2000-09-01	vikas
2	mohit	100	16500	5	IT	female	27	1997-05-07	vikas
3	vikas	100	22000	4	IT	female	30	1994-08-05	vikas
8	ashish	200	6000	5	Marketing	male	20	2003-12-12	rohit
5	mohit	200	12000	6	Marketing	male	24	2000-09-01	rohit
6	agam	200	14400	2	Marketing	male	24	2000-09-01	rohit
7	anam	200	14400	3	Marketing	male	24	2000-09-01	rohit
4	rohit	200	30000	2	Marketing	male	30	1994-08-05	rohit
9	vikas	300	15000	4	NULL	male	27	1997-05-07	vikas

```
19 •  SELECT *,
20    FIRST_VALUE(emp_name) OVER(PARTITION BY department_id ORDER BY age DESC) AS oldest_emp
21    FROM emp
22    ORDER BY department_id, age;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_id	emp_name	department_id	salary	manager_id	dept_name	gender	age	dob	oldest_emp
1	Ankit	100	11000	4	IT	female	24	2000-09-01	vikas
2	mohit	100	16500	5	IT	female	27	1997-05-07	vikas
3	vikas	100	22000	4	IT	female	30	1994-08-05	vikas
8	ashish	200	6000	5	Marketing	male	20	2003-12-12	rohit
5	mohit	200	12000	6	Marketing	male	24	2000-09-01	rohit
6	agam	200	14400	2	Marketing	male	24	2000-09-01	rohit
7	anam	200	14400	3	Marketing	male	24	2000-09-01	rohit
4	rohit	200	30000	2	Marketing	male	30	1994-08-05	rohit
9	vikas	300	15000	4	NULL	male	27	1997-05-07	vikas

THANK YOU

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