

SQLite



PostgreSQL



MariaDB



PostgreSQL



0.17.0 beta

Table

"Customers"



"Sales"



customers



demo



departments



employees



regions



sales



```
1 SELECT *, ROW_NUMBER() OVER() AS Row_N
2 FROM "departments"
3 WHERE division = 'Entertainment'
4 ORDER BY Row_N ASC;
```

MS SQL



	department	division	row_n
	Books	Entertainment	1
	Games	Entertainment	2
	Music	Entertainment	3
	Movies	Entertainment	4

History

Syntax | History

PostgreSQL

```
SELECT *, ROW_NUMBER() OVER() AS Row_N
FROM "departments"
WHERE division = 'Entertainment'
ORDER BY
```

...

10:41:10

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

```
1 -- Retrieve a list of employee_id, first_name,
2 -- hire_date, and department of all employees in the sports
3 -- department ordered by the hire date
4 SELECT employee_id, first_name, hire_date, department,
5 ROW_NUMBER() OVER() AS row_n
6 FROM employees
7 WHERE department = 'Sports'
8 ORDER BY row_n
```

employee_id	first_name	hire_date	department	row_n
1	Berrie	2006-04-20	Sports	1
6	Bethena	2003-06-08	Sports	2
34	Lucy	2005-02-07	Sports	3
51	Norine	2008-08-22	Sports	4
77	Maurice	2006-01-08	Sports	5
89	Claudetta	2011-08-24	Sports	6
156	Joleen	2004-10-24	Sports	7
164	Benjamin	2006-11-13	Sports	8

History

Syntax | History

PostgreSQL

```
-- Retrieve a list of employee_id, fi  
-- hire_date, and department of all e  
...
```

10:45:30

PostgreSQL

```
SELECT *, ROW_NUMBER() OVER() AS Row_
FROM "departments"
WHERE division = 'Entertainment'
ORDER BY
```

10:41:10

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

```
1 -- Order by multiple columns
2 SELECT employee_id, first_name, hire_date, department,
3 ROW_NUMBER() OVER(ORDER BY hire_date ASC, salary DESC) AS row_n
4 FROM employees
5 WHERE department = 'Sports'
6 ORDER BY row_n
```

	employee_id	first_name	hire_date	department	row_n
6	Bethena	2003-06-08	Sports	1	
555	Andra	2003-06-21	Sports	2	
524	Esme	2003-08-02	Sports	3	
540	Cody	2003-10-05	Sports	4	
598	Darrin	2004-01-17	Sports	5	
784	Starlin	2004-09-07	Sports	6	
156	Joleen	2004-10-24	Sports	7	
34	Lucy	2005-02-07	Sports	8	

History

Syntax | History

PostgreSQL

-- Order by multiple columns
SELECT employee_id, first_name, hire_date, department, row_n
ROW_NUMBER() OVER(ORDER BY hire_date ASC, salary DESC) AS row_n
FROM employees
WHERE department = 'Sports'
ORDER BY row_n

10:46:17

PostgreSQL

-- Retrieve a list of employee_id, first_name, hire_date, and department of all employees
SELECT employee_id, first_name, hire_date, department
FROM employees
ORDER BY hire_date

10:45:30

PostgreSQL

SELECT *, ROW_NUMBER() OVER() AS Row_N
FROM "departments"
WHERE division = 'Entertainment'
ORDER BY

10:41:10

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

```

1 -- Ordering inside and outside the OVER() clause
2 SELECT employee_id, first_name, hire_date, salary, department,
3 ROW_NUMBER() OVER(ORDER BY hire_date ASC, salary DESC) AS Row_N
4 FROM employees
5 WHERE department = 'Sports'
6 ORDER BY employee_id;

```

	employee...	first_name	hire_date	salary	department	row_n
1	Berrie	2006-04-20	154864	Sports	10	
6	Bethena	2003-06-08	134501	Sports	1	
34	Lucy	2005-02-07	165660	Sports	8	
51	Norine	2008-08-22	66488	Sports	16	
77	Maurice	2006-01-08	67615	Sports	9	
89	Claudetta	2011-08-24	157802	Sports	23	
156	Joleen	2004-10-24	29838	Sports	7	
164	Benjamin	2006-11-13	21735	Sports	12	

History

Syntax | History

PostgreSQL

```
-- Ordering inside and outside the 0
SELECT employee_id, first_name, hire
...
```

10:46:47

PostgreSQL

```
-- Order by multiple columns
SELECT employee_id, first_name, hire
ROW_NUMBER() OVE
...
```

10:46:17

PostgreSQL

```
-- Retrieve a list of employee_id, f
-- hire_date, and department of all
...
```

10:45:30

PostgreSQL

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

```
1 -- Retrieve the employee_id, first_name,  
2 -- hire_date of employees for different departments  
3 SELECT employee_id, first_name, department, hire_date,  
4 ROW_NUMBER() OVER(PARTITION BY department) AS row_n  
5 FROM employees  
6 ORDER BY department ASC  
7  
8 -- Partition by department resets row_n for each department
```

employee_id	first_name	department	hire_date	row_n
844	Laurie	Automotive	2007-05-31	30
305	Ladonna	Automotive	2003-08-10	31
247	Tammie	Automotive	2011-12-08	32
347	Efrem	Beauty	2006-09-22	1
692	De witt	Beauty	2006-08-30	2
482	Garald	Beauty	2008-10-13	3
925	Alvin	Beauty	2016-11-01	4
831	Aguie	Beauty	2014-03-08	5

History

Syntax | History

PostgreSQL

```
-- Retrieve the employee_id, first_n  
-- hire_date of employees for differ  
SELECT
```

10:49:47

PostgreSQL

```
-- Ordering inside and outside the 0  
SELECT employee_id, first_name, hire
```

10:46:47

PostgreSQL

```
-- Order by multiple columns  
SELECT employee_id, first_name, hire  
ROW_NUMBER() OVE
```

10:46:17

PostgreSQL

- SQLite
- MariaDB
- PostgreSQL
 - 0.17.0 beta
- Table
 - "Customers"
 - "Sales"
 - customers
 - demo
 - departments
 - employees
 - regions
 - sales
- MS SQL

PostgreSQL

```
1 -- Order by the hire_date
2 SELECT employee_id, first_name, department, hire_date,
3 ROW_NUMBER() OVER (PARTITION BY department
4                      ORDER BY hire_date) AS Row_N
5 FROM employees
6 ORDER BY department ASC;
```

	employee_id	first_name	department	hire_date	row_n
	927	Maryellen	Automotive	2003-04-19	1
	840	Archibald	Automotive	2003-04-26	2
	988	Tabb	Automotive	2003-05-02	3
	648	Abbott	Automotive	2003-06-05	4
	305	Ladonna	Automotive	2003-08-10	5
	126	Roslyn	Automotive	2003-08-11	6
	274	Lorelle	Automotive	2004-01-27	7
	515	Cybille	Automotive	2004-04-01	8

History

Syntax | History

PostgreSQL

```
-- Order by the hire_date
SELECT employee_id, first_name, depa
ROW_NUMBER() OVER (
```

10:52:49

PostgreSQL

```
-- Retrieve the employee_id, first_n
-- hire_date of employees for differ
SELECT
```

10:49:47

PostgreSQL

```
-- Ordering inside and outside the 0
SELECT employee_id, first_name, hire
```

10:46:47

SQLite < PostgreSQL

```

1 -- Joining Sales and Customers based on Customer_ID, then
2 -- Counts the number of purchases made by the same customer and segment
3 WITH customer_purchase AS (
4   SELECT s."Customer_ID", C."Customer_Name", C."Segment",
5   COUNT(*) AS purchase_count
6   FROM "Sales" s
7   JOIN "Customers" C
8   ON s."Customer_ID" = C."Customer_ID"
9   GROUP BY s."Customer_ID", C."Customer_Name", C."Segment"
10 )
11 SELECT * FROM customer_purchase
12 ORDER BY "Customer_ID";

```

Customer_ID	Customer_Name	Segment	purchase_count
AA-10315	Alex Avila	Consumer	11
AA-10375	Allen Arnold	Consumer	15
AA-10480	Andrew Allen	Consumer	12
AA-10645	Anna Andreadi	Consumer	18
AB-10015	Aaron Bergman	Consumer	6
AB-10060	Adam Bellavance	Home Office	18
AB-10105	Adrian Barton	Consumer	20
AB-10150	Aimee Bixby	Consumer	12

History

Syntax | History

PostgreSQL

```

WITH customer_purchase AS (
  SELECT s."Customer_ID", C."Customer_Name", C."Segment", COUNT(*) AS purchase_count
  FROM "Sales" s
  JOIN "Customers" C
  ON s."Customer_ID" = C."Customer_ID"
  GROUP BY s."Customer_ID", C."Customer_Name", C."Segment"
)
SELECT * FROM customer_purchase
ORDER BY "Customer_ID";

```

11:11:43

PostgreSQL

```

WITH customer_purchase AS (
  SELECT s."Customer_ID", C."Customer_Name", C."Segment", COUNT(*) AS purchase_count
  FROM "Sales" s
  JOIN "Customers" C
  ON s."Customer_ID" = C."Customer_ID"
  GROUP BY s."Customer_ID", C."Customer_Name", C."Segment"
)
SELECT * FROM customer_purchase
ORDER BY "Customer_ID";

```

Help: Error 42601 syntax error at end of input

11:11:18

PostgreSQL

```

SELECT "Customer_ID" FROM "Customers"

```

11:10:14

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales"
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

```

1 -- Creating a CTE and ordering by purchase count
2 WITH customer_purchase AS (
3     SELECT s."Customer_ID", C."Customer_Name", C."Segment",
4         COUNT(*) AS purchase_count
5     FROM "Sales" s
6     JOIN "Customers" C
7     ON s."Customer_ID" = C."Customer_ID"
8     GROUP BY s."Customer_ID", C."Customer_Name", C."Segment"
9 )
10 SELECT "Customer_ID", "Customer_Name", "Segment", purchase_count,
11 ROW_NUMBER() OVER(ORDER BY purchase_count DESC) AS row_n
12 FROM customer_purchase
13 ORDER BY row_n;

```

Customer_ID	Customer_Name	Segment	purchase_count	row_n
WB-21850	William Brown	Consumer	37	1
MA-17560	Matt Abelman	Home Office	34	2
JL-15835	John Lee	Consumer	34	3
PP-18955	Paul Prost	Home Office	34	4
EH-13765	Edward Hooks	Corporate	32	5
JD-15895	Jonathan Doherty	Corporate	32	6
CK-12205	Chloris Kastensmidt	Consumer	32	7
SV-20285	Seth Warren	Consumer	32	8

History

Syntax | History

PostgreSQL

```
-- Creating a CTE and ordering by pu
WITH customer_purchase AS (
    SELECT s."Customer_ID"
```

11:22:26

PostgreSQL

```
-- Creating a CTE and ordering by pu
WITH customer_purchase AS (
    SELECT s."Customer_ID"
```

11:22:04

PostgreSQL

```
-- Creating a CTE and ordering by pu
WITH customer_purchase AS (
    SELECT s."Customer_ID"
```

11:21:18

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales"
- customers
- demo
- departments
- employees
- regions
- sales

MS SQL <

```
1 -- Creating a CTE and ordering by purchase count, but partitioning by segment
2 WITH customer_purchase AS (
3     SELECT s."Customer_ID", c."Customer_Name", c."Segment",
4         COUNT(*) AS purchase_count
5     FROM "Sales" s
6     JOIN "Customers" c
7     ON s."Customer_ID" = c."Customer_ID"
8     GROUP BY s."Customer_ID", c."Customer_Name", c."Segment"
9 )
10 SELECT "Customer_ID", "Customer_Name", "Segment", purchase_count,
11 ROW_NUMBER() OVER(PARTITION BY "Segment" ORDER BY purchase_count DESC) AS row_n
12 FROM customer_purchase
13 ORDER BY "Segment", row_n;
```

	Customer_ID	Customer_Name	Segment	purchase_count	row_n
JR-15700	Jocasta Rupert	Consumer	1	408	
RE-19405	Ricardo Emerson	Consumer	1	409	
EH-13765	Edward Hooks	Corporate	32	1	
JD-15895	Jonathan Doherty	Corporate	32	2	
BM-11650	Brian Moss	Corporate	29	3	
SH-19975	Sally Hughsby	Corporate	29	4	
KD-16495	Keith Dawkins	Corporate	28	5	
CS-12250	Chris Scolnick	Corporate	28	6	

History

Syntax | History

PostgreSQL

```
-- Creating a CTE and ordering by pu
WITH customer_purchase
```

11:27:18

PostgreSQL

```
-- Creating a CTE and ordering by p
WITH customer_purchase
```

11:27:10

Help: Error 42703 column "segment" does not exist

PostgreSQL

```
-- Creating a CTE and ordering by p
WITH customer_purchase
```

11:27:10

Help: Error 42703 column "segment" does not exist

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

first_name	department	salary	next_salary
Berrie	Sports	154864	56752
Aeriell	Tools	56752	95313
Sydney	Clothing	95313	119674
Avrom	Phones & Tablets	119674	55307
Feliks	Computers	55307	134501
Bethena	Sports	134501	28995
Ardeen	Clothing	28995	101066

History

Syntax | History

PostgreSQL

```
SELECT first_name, department, salary
LEAD(salary) OVER() next_salary
FROM employees
```

12:04:30

PostgreSQL

```
SELECT first_name, department, salary
LEAD(salary) OVER() next_salary,
FROM employees
```

12:04:22

Help: Error 42601 syntax error at or near
"FROM"

PostgreSQL

```
-- Creating a CTE and ordering by purchase
WITH customer_purchase
```

11:27:18

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- regions <
- sales <

MS SQL <

first_name	department	salary	next_salary
Berrie	Sports	154864	NULL
Aeriell	Tools	56752	154864
Sydney	Clothing	95313	56752
Avrom	Phones & Tablets	119674	95313
Feliks	Computers	55307	119674
Bethena	Sports	134501	55307
Ardeen	Clothing	28995	134501
Salma	Phones & Tablets	101066	28995

History

Syntax | History

PostgreSQL

```
-- Using LAG() to find the next person's salary
SELECT first_name, department, salary,
LAG(salary) OVER() next_salary
FROM employees
```

12:08:13

PostgreSQL

```
-- Using LEAD() to find the next person's salary
SELECT first_name, department, salary,
LEAD(salary) OVER() next_salary
FROM employees
```

12:07:09

PostgreSQL

```
SELECT first_name, department, salary,
LEAD(salary) OVER() next_salary
FROM employees
```

12:04:30

SQLite < PostgreSQL

MariaDB <

PostgreSQL ▾ 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev ▾

Column

- first_name character va...
- department character v...
- salary integer
- next_salary integer

regions <

sales <

MS SQL <

```

1 -- Retrieve all employees first name, department, salary
2 -- and the salary before that employee
3 SELECT first_name, department, salary,
4 LEAD(salary) OVER(ORDER BY salary DESC) next_salary
5 FROM employees

```

	first_name	department	salary	next_salary
Jacklyn	Clothing	166976	166765	
Carissa	Music	166765	166569	
Riley	Camping	166569	166016	
Lauren	Pharmacy	166016	165660	
Lucy	Sports	165660	164588	
Barby	Clothing	164588	164582	
Ev	Grocery	164582	164470	
Stephanie	Sports	164470	164255	

History

[Syntax](#) | [History](#)

PostgreSQL

```
-- Retrieve all employees first name
-- and the salary before that employ
sele
```

12:09:49

PostgreSQL

```
-- Using LAG() to find the next pers
CREATE TABLE prev AS
SELECT first_name, department,
```

12:09:02

PostgreSQL

```
-- Using LAG() to find the next pers
SELECT first_name, department, salar
LAG(salary)
```

12:08:13

SQLite < PostgreSQL

MariaDB <

PostgreSQL ▾ 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev ▾

	first_name	department	salary	next_salary	diff_salary
Jacklyn	Clothing	166976	166765	211	
Carissa	Music	166765	166569	196	
Riley	Camping	166569	166016	553	
Lauren	Pharmacy	166016	165660	356	
Lucy	Sports	165660	164588	1072	
Barby	Clothing	164588	164582	6	
Ev	Grocery	164582	164470	112	
Stephanie	Sports	164470	164355	115	

MS SQL <

History

Syntax | History

PostgreSQL

```
-- Create the difference between the current and next salaries
SELECT first_name, department, salary,
LEAD(salary) OVER(ORDER BY salary DESC) next_salary,
salary - LEAD(salary) OVER(ORDER BY salary DESC) diff_salary
FROM employees
```

12:11:19

PostgreSQL

```
-- Retrieve all employees first name
-- and the salary before that employ
sel
```

12:10:58

Help: Error 42601 syntax error at or near "as"

PostgreSQL

```
-- Retrieve all employees first name
-- and the salary before that employ
sel
```

12:09:49

SQLite < PostgreSQL

MariaDB <

PostgreSQL ▾ 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev ▾

Column

- first_name character va...
- department character v...
- salary integer
- next_salary integer

regions <

sales <

MS SQL <

```

1 -- Selecting the closest salary that is above the employee,
2 -- partitioned by department
3 SELECT first_name, department, salary,
4 LEAD(salary) OVER (PARTITION BY department
5                               ORDER BY salary DESC) closest_salary
6 FROM employees

```

first_name	department	salary	closest_salary
Mill	Automotive	162522	160783
Irita	Automotive	160783	160039
Tammie	Automotive	160039	157260
Roslyn	Automotive	157260	152141
Betsey	Automotive	152141	150821
Cherianne	Automotive	150821	146522
Chrissy	Automotive	146522	144511
Dorothy	Automotive	144511	144511

History

Syntax | History

PostgreSQL

```
-- Selecting the closest salary that
-- partitioned by department
```

SELECT fir

12:16:54

PostgreSQL

I

Help: Error 42601 syntax error at or near "I"

12:16:45

PostgreSQL

```
SELECT first_name, department, salary
LEAD(salary) OVER (PARTITION BY department
ORDER BY salary DESC)
```

12:15:19

PostgreSQL

SQLite < PostgreSQL

MariaDB <

PostgreSQL ▾ 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev ▾

Column

- first_name character va...
- department character v...
- salary integer
- next_salary integer

regions <

sales <

MS SQL <

```

1 -- Retrieve the closest salary, and then the next closest salary
2 SELECT first_name, department, salary,
3 LEAD(salary, 1) OVER (ORDER BY salary DESC) closest_salary,
4 LEAD(salary, 2) OVER (ORDER BY salary DESC) next_closest_salary
5 FROM employees
6 WHERE department = 'Clothing'

```

	first_name	department	salary	closest_salary	next_closest_salary
Jacklyn	Clothing	166976	164588	160417	
Barby	Clothing	164588	160417	157392	
Manfred	Clothing	160417	157392	150887	
Faustine	Clothing	157392	150887	141256	
Hester	Clothing	150887	141256	132264	
Cirstoforo	Clothing	141256	132264	128327	
Maryanna	Clothing	132264	128327	126305	
Vinnie	Clothing	126305	126305	124040	

History

Syntax | History

PostgreSQL

```
-- Retrieve the closest salary, and
SELECT first_name, department, sala
```

12:20:04

PostgreSQL

```
SELECT first_name, department, salar
LEAD(salary, 1) OVER (ORDER BY salar
```

12:19:04

PostgreSQL

```
-- Selecting the closest salary that
-- partitioned by department
SELECT fir
```

12:16:54

PostgreSQL

SQLite



PostgreSQL



MariaDB



PostgreSQL



0.17.0 beta

Table

"Customers"



"Sales"



customers



demo



departments



employees



prev



Column

first_name character va...

department character v...

salary integer

next_salary integer

regions



sales



MS SQL



```

1 -- Find the difference between the hire date of the first employee
2 -- hired and every other employees
3
4 SELECT *, AGE(hire_date, first_emp_date) AS difference FROM (
5 SELECT first_name, department, hire_date,
6 FIRST_VALUE(hire_date) OVER(ORDER BY hire_date) first_emp_date
7 FROM employees) A
8 ORDER BY hire_date
9

```

	first_name	department	hire_date	first_emp_date	difference
	Dayle	First Aid	2003-03-01	2003-01-01	2 mons
	Bear	Decor	2003-03-02	2003-01-01	2 mons 1 day
	Nonnah	Music	2003-03-08	2003-01-01	2 mons 7 days
	Jamie	Cosmetics	2003-03-13	2003-01-01	2 mons 12 days
	Arvy	Garden	2003-03-16	2003-01-01	2 mons 15 days
	Edna	Children Clothing	2003-04-09	2003-01-01	3 mons 8 days
	Alis	Books	2003-04-09	2003-01-01	3 mons 8 days
	Magnolia	Automotive	2003-04-10	2003-01-01	3 mons 10 days

History

Syntax | History

PostgreSQL



-- Find the difference between the h
-- hired and every other employee

...

14:32:50

PostgreSQL



```

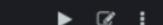
SELECT * FROM (
SELECT first_name, department, hire_
FIRST_VALUE(hire_date) OVER(ORDER BY

```

...

14:32:03

PostgreSQL



```

SELECT *, FROM (
SELECT first_name, department, hire
FIRST_VALUE(hire_date) OVER(ORDER B

```

...

Help: Error 42601 syntax error at or near
"FROM"

14:31:54

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev < Column
- first_name character va...
department character v...
- salary integer
next_salary integer
- regions <
- sales <

MS SQL <

```

1 -- The difference between the hire date of the
2 -- first employee hired and every other employees
3 -- partitioned by department
4 SELECT *, AGE(hire_date, first_emp_date) diff
5 FROM (
6 SELECT first_name, last_name, department, hire_date,
7 FIRST_VALUE(hire_date) OVER (PARTITION BY department
8 ORDER BY hire_date) AS first_emp_date
9 FROM employees) A
10 ORDER BY department, hire_date

```

	first_name	last_name	department	hire_date	first_emp_d...	diff
	Maryellen	Westnedge	Automotive	2003-04-19	2003-04-19	00:00:00
	Archibold	Deely	Automotive	2003-04-26	2003-04-19	7 days
	Tabb	Huddleston	Automotive	2003-05-02	2003-04-19	13 days
	Abbott	Mundow	Automotive	2003-06-05	2003-04-19	1 mon 16 days
	Ladonna	McCrow	Automotive	2003-08-10	2003-04-19	3 mons 21 days
	Roslyn	Guieu	Automotive	2003-08-11	2003-04-19	3 mons 22 days
	Lorelle	Kelberman	Automotive	2004-01-27	2003-04-19	9 mons 8 days
	Ondell	Perez	Automotive	2004-04-04	2003-04-19	14 mons 19 days

History

Syntax | History

PostgreSQL

```
-- The difference between the hire d
-- first employee hired and every ot
-
```

14:48:13

PostgreSQL

```
-- The difference between the hire d
-- first employee hired and every ot
-
```

14:48:05

PostgreSQL

```
-- The difference between the hire d
-- first employee hired and every ot
-
```

14:47:52

SQLite



PostgreSQL



MariaDB



PostgreSQL



0.17.0 beta

Table

"Customers"



"Sales"



customers



demo



departments



employees



prev



Column

first_name character va...

department character v...

salary integer

next_salary integer

regions



sales



MS SQL



```

1 -- Return the fifth salary for different departments
2 -- Order by the first_name in ascending order
3
4 SELECT first_name, email, department, salary,
5 NTH_VALUE(salary, 5) OVER(PARTITION BY department
6 ORDER BY first_name ASC)
7 FROM employees

```

	first_name	email	department	salary	nth_value
Abbott	amundowhz@prl...	Automotive	106517	NULL	
Archibold	adeelynb@fda.gov	Automotive	69379	NULL	
Berkley	NULL	Automotive	44641	NULL	
Betsey	breedshawc5@p...	Automotive	152141	NULL	
Charis	cbradbornejp@sc...	Automotive	130995	130995	
Cherianne	NULL	Automotive	150821	130995	
Chrissy	cappletonlq@cen...	Automotive	146522	130995	
Clementina	cfrankcombec1@...	Automotive	95492	130995	
Cy	cmenceft@icq.com	Automotive	144146	130995	
Cybil	cperezzea@a8.net	Automotive	123828	130995	

History

Syntax | History

PostgreSQL



-- Return the fifth salary for different departments
-- Order by the first_name in ascending order

14:59:06

PostgreSQL



```
SELECT first_name, email, department
NTH_VALUE(salary, 5) OVER(PARTITION BY department
ORDER BY first_name ASC)
```

14:57:22

PostgreSQL



```
SELECT first_name, email, department
FIRST_VALUE(salary)OVER(PARTITION BY
```

14:53:16

SQLite < PostgreSQL

```

1 -- Retrieve the hire_date. Return details of
2 -- employees hired on or before 31st Dec, 2005 and are in
3 -- First Aid, Movies and Computers departments
4
5 SELECT first_name, email, department, salary, hire_date,
6 RANK() OVER(PARTITION BY department
7           ORDER BY salary DESC)
8 FROM employees
9 WHERE hire_date >= '2005-12-31'
10 AND department IN ('First Aid', 'Movies', 'Computers')

```

	first_name	email	department	salary	hire_date	rank
Brandise	bjansh0@lulu...	Computers	163512	2008-02-15	1	
Bartel	bphythiennm...	Computers	154818	2015-05-25	2	
Pennie	pprevettps@...	Computers	153445	2009-10-03	3	
Laryssa	lmumns@shi...	Computers	152831	2006-12-02	4	
Swen	spirrone8o@li...	Computers	152304	2012-09-11	5	
Erminia	eocarmodylb...	Computers	146467	2007-01-06	6	
Margy	mbess21@google...	Computers	144141	2012-11-10	7	
Lionel	luridgeh7@a...	Computers	140136	2006-11-15	8	

History

Syntax | History

PostgreSQL
-- Retrieve the hire_date. Return de
-- employees hired on or before 31st
...
15:59:42

PostgreSQL
SELECT first_name, email, department
RANK() OVER(PARTITION BY department
ORDE
...
15:59:05

PostgreSQL
SELECT first_name, email, departmen
RANK() OVER(PARTITION BY department
ORDE
...
Help: Error 42703 column "2005-12-31" does
not exist
15:58:37

SQLite < PostgreSQL

```

1 -- Create a common table expression to retrieve the customer_id,
2 -- and how many times the customer has purchased from the mall
3 WITH purchase_count AS (
4   SELECT s."Customer_ID", COUNT(s."Sales") AS purchase
5   FROM "Sales" s
6   GROUP BY s."Customer_ID"
7   ORDER BY purchase DESC
8 )
9
10 -- Understand the difference between ROW_NUMBER, RANK, DENSE_RANK
11 SELECT "Customer_ID", purchase,
12 ROW_NUMBER() OVER (ORDER BY purchase DESC) AS Row_N, -- 1, 2, 3, 4, 5, 6
13 RANK() OVER (ORDER BY purchase DESC) AS Rank_N, -- 1, 2, 2, 2, 5, 5
14 DENSE_RANK() OVER (ORDER BY purchase DESC) AS Dense_Rank_N -- 1, 2, 2, 2, 3, 3, 3
15 FROM purchase_count
16 ORDER BY purchase DESC

```

	Customer_ID	purchase	row_n	rank_n	dense_rank_n
WB-21850	37	1	1	1	
PP-18955	34	2	2	2	
JL-15835	34	3	2	2	
MA-17560	34	4	2	2	
EH-13765	32	5	5	3	
JD-15895	32	6	5	3	

History

Syntax | History

PostgreSQL

```
-- Create a common table expression
-- and how many times the customer
```

16:08:16

PostgreSQL

```
-- Create a common table expression
-- and how many times the customer
```

16:05:25

PostgreSQL

```
-- Create a common table expression
-- and how many times the customer
```

16:05:13

Help: Error 42703 column "customer_id" does not exist

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev <
- regions <
- sales <

MS SQL <

```

1 -- Group the employees table into five groups
2 -- based on the order of their salaries
3 SELECT first_name, department, salary,
4 NTILE(5) OVER(ORDER BY salary DESC)
5 FROM employees

```

	first_name	department	salary	ntile
Jacklyn	Clothing	166976	1	
Carissa	Music	166765	1	
Riley	Camping	166569	1	
Lauren	Pharmacy	166016	1	
Lucy	Sports	165660	1	
Barby	Clothing	164588	1	
Ev	Grocery	164582	1	

History

[Syntax](#) | [History](#)

PostgreSQL

```
-- Group the employees table into fi
-- based on the order of their salar
SELECT first_n
```

16:11:58

PostgreSQL

```
-- Group the employees table into f
-- based on the order of their sala
SELECT first_n
```

16:10:57

Help: Error 42883 function ntiles(integer) does
not exist

PostgreSQL

```
-- Create a common table expression
-- and how many times the customer
```

16:08:16

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev <
- regions <
- sales <

MS SQL <

```
1 -- Retrieve the first names, department and
2 -- number of employees working in that department
3
4 SELECT first_name, department, COUNT(*) OVER(PARTITION BY department)
5 AS dept_count
6 FROM employees
7
```

first_name	department	dept_count
Lorelle	Automotive	32
Sterling	Automotive	32
Roslyn	Automotive	32
Abbott	Automotive	32
Cybille	Automotive	32
Mill	Automotive	32
Maryellen	Automotive	32

History

[Syntax](#) | [History](#)

PostgreSQL

```
SELECT first_name, department, COUNT
AS dept_count
FROM employees
```

16:20:23

PostgreSQL

```
SELECT department, COUNT(*) OVER(PAR
AS dept_count
FROM employees
```

16:19:56

PostgreSQL

```
SELECT first_name, department, COUNT
AS dept_count
FROM employees
```

16:19:32

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev <
- regions <
- sales <

MS SQL <

first_name	department	hire_date	total_salary
Lorelle	Automotive	2004-01-27	3553477
Sterling	Automotive	2004-09-02	3553477
Roslyn	Automotive	2003-08-11	3553477
Abbott	Automotive	2003-06-05	3553477
Cybil	Automotive	2004-04-01	3553477
Mill	Automotive	2011-01-08	3553477
Maryellen	Automotive	2003-04-19	3553477

History

Syntax | History

PostgreSQL ► ☰ ■ :

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(PARTITION BY department) AS total_salary
```

16:23:25

PostgreSQL ► ☰ ■ :

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(ORDER BY
```

16:22:35

PostgreSQL ► ☰ ■ :

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(ORDER BY
```

16:22:15

SQLite < PostgreSQL

MariaDB <

PostgreSQL < 0.17.0 beta

Table

- "Customers" <
- "Sales" <
- customers <
- demo <
- departments <
- employees <
- prev <
- regions <
- sales <

MS SQL <

region_id

7
1
5
2
4
6
3

History

[Syntax](#) | [History](#)

PostgreSQL

```
-- Retrieve the different region ids
SELECT DISTINCT region_id
FROM employees;
```

16:56:39

PostgreSQL

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(PARTITION
```

16:23:25

PostgreSQL

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(ORDER BY
```

16:22:35

SQLite	<
MariaDB	<
PostgreSQL	< ▶ 0.17.0 beta
Table	
"Customers"	<
"Sales"	<
customers	<
demo	<
departments	<
employees	<
prev	<
regions	<
sales	<

PostgreSQL

```
1 -- Retrieve the first names, department and
2 -- number of employees working in that department and region
3 SELECT first_name, department,
4 COUNT(*) OVER(PARTITION BY department) dept_count,
5 region_id,
6 COUNT(*) OVER(PARTITION BY region_id) region_count
7 FROM employees
```

first_name	department	dept_count	region_id	region_count
Ladonna	Automotive	32	2	141
Clementina	Automotive	32	1	152
Cybille	Automotive	32	1	152
Merlina	Automotive	32	1	152
Jessalyn	Automotive	32	7	152
Abbott	Automotive	32	7	152
Irita	Automotive	32	1	152
Berkley	Automotive	32	5	127
Vanda	Automotive	32	4	137

History

Syntax | History

PostgreSQL

```
-- Retrieve the first names, departm
-- number of employees working in th
```

17:00:00

PostgreSQL

```
-- Retrieve the different region ids
SELECT DISTINCT region_id
FROM employees;
```

16:56:39

PostgreSQL

```
-- Total Salary for all employees
SELECT first_name, department, hire_
SUM(salary) OVER(PARTITI
```

16:23:25

PostgreSQL

SQLite < PostgreSQL

```
1 -- Retrieve the first_name, hire_date, salary
2 -- of all employees ordered by the hire date
3
4 SELECT first_name, hire_date, salary,
5 SUM(salary) OVER(ORDER BY hire_date
6           RANGE BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) AS running_total
7 FROM employees
```

	first_name	hire_date	salary	running_total
Norbie	2003-01-01	82215	189151	
Cassandra	2003-01-01	106936	189151	
Rora	2003-01-12	153489	342640	
Feliks	2003-01-14	55307	397947	
Cecilius	2003-01-20	98882	496829	
Eugenius	2003-01-26	152118	648947	
Fiorenze	2003-02-17	51266	700213	
Elnora	2003-02-22	34355	734568	
Chelsev	2003-02-24	57309	791877	

History

Syntax | History

PostgreSQL

```
-- Retrieve the first_name, hire_date
-- of all employees ordered by the hire date
SELECT first_name, hire_date, salary,
SUM(salary) OVER(ORDER BY hire_date
           RANGE BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) AS running_total
```

17:34:55

PostgreSQL

```
SELECT first_name, hire_date, salary,
SUM(salary) OVER(ORDER BY hire_date
           RANGE BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) AS running_total
```

17:34:38

PostgreSQL

```
-- Retrieve the first names, department names and
-- number of employees working in the same department
```

17:00:00

SQLite < PostgreSQL

```
1 -- Find the running average
2 SELECT first_name, hire_date, salary,
3 AVG(salary) OVER(ORDER BY hire_date
4      ROWS BETWEEN 1 PRECEDING AND CURRENT ROW) AS running_total
5 FROM employees
6
```

	first_name	hire_date	salary	running_total
Norbie	2003-01-01	82215	82215.00000000000000	
Cassandra	2003-01-01	106936	94575.50000000000000	
Rora	2003-01-12	153489	130212.50000000000000	
Feliks	2003-01-14	55307	104398.00000000000000	
Cecilius	2003-01-20	98882	77094.50000000000000	
Eugenius	2003-01-26	152118	125500.00000000000000	
Fiorenze	2003-02-17	51266	101692.00000000000000	
Elnora	2003-02-22	34355	42810.50000000000000	
Chelsev	2003-02-24	57309	45832.00000000000000	

MS SQL <

History

Syntax | History

PostgreSQL
-- Find the running average
SELECT first_name, hire_date, salary
AVG(salary) OVER(ORDER BY hire_dat
...

17:39:54

PostgreSQL
SELECT first_name, hire_date, salary
SUM(salary) OVER(ORDER BY hire_date
RANGE BETWEEN UNBOUNDED P
...

17:39:19

PostgreSQL
-- Add the current row and previous
SELECT first_name, hire_date, salary
SUM(salary) OVER(ORDER
...

17:39:08

SQLite

MariaDB

PostgreSQL

- 0.17.0 beta
- Table
 - "Customers"
 - "Sales"
 - customers
 - demo
 - departments
 - employees
 - prev
 - regions
 - sales

MS SQL

PostgreSQL

```

1 -- GROUPING SETS allow us to use GROUP BY on multiple categories
2 -- with one single query
3
4 SELECT s."Ship_Mode", s."Category", s."Sub-Category", SUM(s."Quantity")
5 FROM "Sales" s
6 GROUP BY GROUPING SETS (s."Ship_Mode", s."Category", s."Sub-Category", ())

```

Ship_Mode	Category	Sub-Category	sum
NULL	NULL	NULL	37873
Standard Class	NULL	NULL	22797
Second Class	NULL	NULL	7423
Same Day	NULL	NULL	1960
First Class	NULL	NULL	5693
NULL	Furniture	NULL	8028
NULL	Office Supplies	NULL	22906
NULL	Technology	NULL	6939
NULL	NULL	Tables	1241

History

Syntax | History

PostgreSQL

```

SELECT s."Ship_Mode", s."Category",
FROM "Sales" s
GROUP BY GROU
...
```

17:51:47

PostgreSQL

```

SELECT s."Ship_Mode", s.Category,
FROM "Sales" s
GROUP BY GROUPING SETS
...
```

Help: Error 42703 column s.category does not exist

17:51:03

PostgreSQL

```

SELECT s."Ship_Mode", category, sub
FROM "Sales" s
GROUP BY GROUPING SETS (s
...
```

SQLite

MariaDB

PostgreSQL

- 0.17.0 beta
- Table
- "Customers"
- "Sales"
- customers
- demo
- departments
- employees
- prev
- regions
- sales

MS SQL

PostgreSQL

```

1 -- CUBE allows us to use GROUP BY on multiple categories
2 -- with one single query: every combination appears
3
4 SELECT s."Ship_Mode", s."Category", s."Sub-Category", SUM(s."Quantity")
5 FROM "Sales" s
6 GROUP BY CUBE (s."Ship_Mode", s."Category", s."Sub-Category")
7

```

Ship_Mode	Category	Sub-Category	sum
NULL	NULL	NULL	37873
Standard Class	Furniture	Chairs	1372
Second Class	Office Supplies	Appliances	324
Standard Class	Office Supplies	Labels	830
Same Day	Office Supplies	Envelopes	58
First Class	Technology	Copiers	45
Standard Class	Furniture	Furnishings	2186
Standard Class	Office Supplies	Envelopes	548
Standard Class	Office Supplies	Supplies	387

History

Syntax | History

PostgreSQL

-- GROUPING SETS allow us to use GROUP BY
-- with one single query

SELE

...

17:59:34

PostgreSQL

-- GROUPING SETS allow us to use GROUP BY
-- with one single query

SELE

...

Help: Error 42601 syntax error at or near ")"

17:59:29

PostgreSQL

```

SELECT s."Ship_Mode", s."Category",
FROM "Sales" s
GROUP BY GROU

```