Query Editor Query History

```sql
select * from employees
-- Basic subqueries with subqueries in the FROM clause
SELECT a.employee_id, a.first_name, a.last_name FROM
(select * from employees
where coffeeshop_id IN (3,4)) a
```

Data Output Explain Messages Notifications

	employee_id [PK] integer	first_name character varying (50)	last_name character varying (50)
1	225709	Eleen	Tarpey
2	614903	Hamel	Grocock
3	590293	Frazier	Balls
4	243999	Jeremy	Whitlam
5	599230	Webb	Hevey
6	75097	Wally	Huebner
7	755091	Clem	Kitchingman
8	510410	Tarra	Rolin
9	593979	Rockie	Meriot
10	125157	Bartolomeo	Gossage
11	891720	Amye	Dilger
12	54960	Eachelle	Baniard

```sql
-- Basic subqueries with subqueries in the SELECT clause
select first_name, last_name, salary,
(SELECT MAX(salary) FROM employees)
from employees
```

Data Output Explain Messages Notifications

	first_name character varying (50)	last_name character varying (50)	salary integer	max integer
1	Carson	Mosconi	32973	67724
2	Khalil	Corr	52802	67724
3	Vilhelmina	Rayman	57855	67724
4	Eleen	Tarpey	48048	67724
5	Hamel	Grocock	66566	67724
6	Frazier	Balls	15235	67724
7	Jeremy	Whitlam	41159	67724
8	Webb	Hevey	48477	67724

```sql
-- Basic subqueries with subqueries in the SELECT clause
select first_name, last_name, salary,
(SELECT ROUND(AVG(salary),0) AS avg_salary FROM employees)
from employees
```

Data Output | Explain | Messages | Notifications

	first_name character varying (50)	last_name character varying (50)	salary integer	avg_salary numeric
1	Carson	Mosconi	32973	38181
2	Khalil	Corr	52802	38181
3	Vilhelmina	Rayman	57855	38181
4	Eleen	Tarpey	48048	38181
5	Hamel	Grocock	66566	38181
6	Frazier	Balls	15235	38181
7	Jeremy	Whitlam	41159	38181
8	Webb	Hevey	48477	38181

```sql
-- A calculation to calculate the difference between person's salary and the avg
select first_name, last_name, salary, (SELECT ROUND(AVG(salary),0) AS avg_salary FROM employees),
salary - (SELECT ROUND(AVG(salary),0) AS avg_salary FROM employees)
AS diff_between_each_salary_and_avg
from employees
```

Data Output | Explain | Messages | Notifications

	first_name character varying (50)	last_name character varying (50)	salary integer	avg_salary numeric	diff_between_each_salary_and_avg numeric
1	Carson	Mosconi	32973	38181	-5208
2	Khalil	Corr	52802	38181	14621
3	Vilhelmina	Rayman	57855	38181	19674
4	Eleen	Tarpey	48048	38181	9867
5	Hamel	Grocock	66566	38181	28385
6	Frazier	Balls	15235	38181	-22946
7	Jeremy	Whitlam	41159	38181	2978

Query Editor Query History

```sql
-- Subqueries in the WHERE clause
-- Return all US coffeeshops
select * from shops
WHERE city_id IN
(select city_id from locations where country = 'United States')

-- I could have also joined the shops and locations tables without using subquery
select s.coffeeshop_name, l.country from shops s
inner join locations l
on l.city_id = s.city_id
where l.country = 'United States'
```

Data Output Explain Messages Notifications

	coffeeshop_id [PK] integer	coffeeshop_name character varying (50)	city_id integer
1	1	Common Grounds	1
2	2	Early Rise	2
3	4	Urban Grind	1
4	5	Trembling Cup	2

Query Editor Query History

```sql
-- Subqueries in the WHERE clause
-- Return all employees who work in US coffee shops
select employee_id, first_name, last_name, coffeeshop_id from employees
where coffeeshop_id IN
(select coffeeshop_id from shops
where city_id IN
(select city_id from locations
where country = 'United States'))
```

Data Output Explain Messages Notifications

	employee_id [PK] integer	first_name character varying (50)	last_name character varying (50)	coffeeshop_id integer
1	501559	Carson	Mosconi	1
2	144108	Khalil	Corr	1
3	782284	Vilhelmina	Rayman	2
4	243999	Jeremy	Whitlam	4
5	599230	Webb	Hevey	4

```sql
-- Return all employees who make over 35K and work in US coffee shops
select employee_id, first_name, last_name, salary, coffeeshop_id from employees
where salary > 35000 and coffeeshop_id IN
(select coffeeshop_id from shops
where city_id IN
(select city_id from locations
where country = 'United States'))
order by salary DESC
```

Data Output | Explain | Messages | Notifications

	employee_id [PK] integer	first_name character varying (50)	last_name character varying (50)	salary integer	coffeeshop_id integer
1	830873	Forrester	Roze	67724	5
2	356659	Dillon	Bourges	67599	4
3	297631	Nolan	Coye	67548	1
4	249536	Austine	Benge	67539	4
5	563265	Raynard	Westmorland	67494	1

```sql
-- 30 day moving total pay (subquery in the SELECT clause)
SELECT hire_date, salary,
(SELECT SUM(salary) from employees e2
WHERE e2.hire_date BETWEEN e1.hire_date - 30 AND e1.hire_date) AS pay_pattern
FROM employees e1
ORDER BY hire_date
```

Data Output | Explain | Messages | Notifications

	hire_date date	salary integer	pay_pattern bigint
1	2010-01-01	17691	17691
2	2010-01-11	32408	50099
3	2010-01-13	65993	116092
4	2010-01-23	21508	150505
5	2010-01-23	12905	150505