SUBQUERIES

1. **WHERE Clause Subqueries**

Example 1:

Query Editor | Query History

```
1  -- What is the company's total revenue during the latest rental month?
2  SELECT SUM(amount)
3  FROM payment p
4  JOIN rental r
5  ON p.rental_id = r.rental_id
6  WHERE DATE_TRUNC('month', rental_date) =
7      (SELECT DATE_TRUNC('month',MAX(rental_date)) AS latest_month
8  FROM rental);
```

Example 2:

Query Editor | Query History

```
1  /*  Show the film_id, title and rental rate of films with rental rates
2      greater than the average rental rate.  */
3
4  SELECT film_id, title, rental_rate
5  FROM film
6  WHERE rental_rate > (SELECT AVG(rental_rate)
7                       FROM film);
```

2. **FROM Clause Subqueries**

Example 1:

Query Editor | Query History

```
1  /* The company is planning to offer a platinum credit card to customers
2     who had at least 36 rentals. How many customers made at least 36
3     rental transactions? How much revenue have they brought into the
4     company?  */
5
6  SELECT COUNT(P.customer_id), SUM(amount)
7  FROM (SELECT customer_id, COUNT(rental_id)
8          FROM rental
9          GROUP BY 1
10         HAVING COUNT(rental_id) >= 36
11         ORDER BY 1) sub1
12 JOIN payment p
13 ON sub1.customer_id = p.customer_id
14 ORDER BY 2;
```

Example 2:

Query Editor | Query History

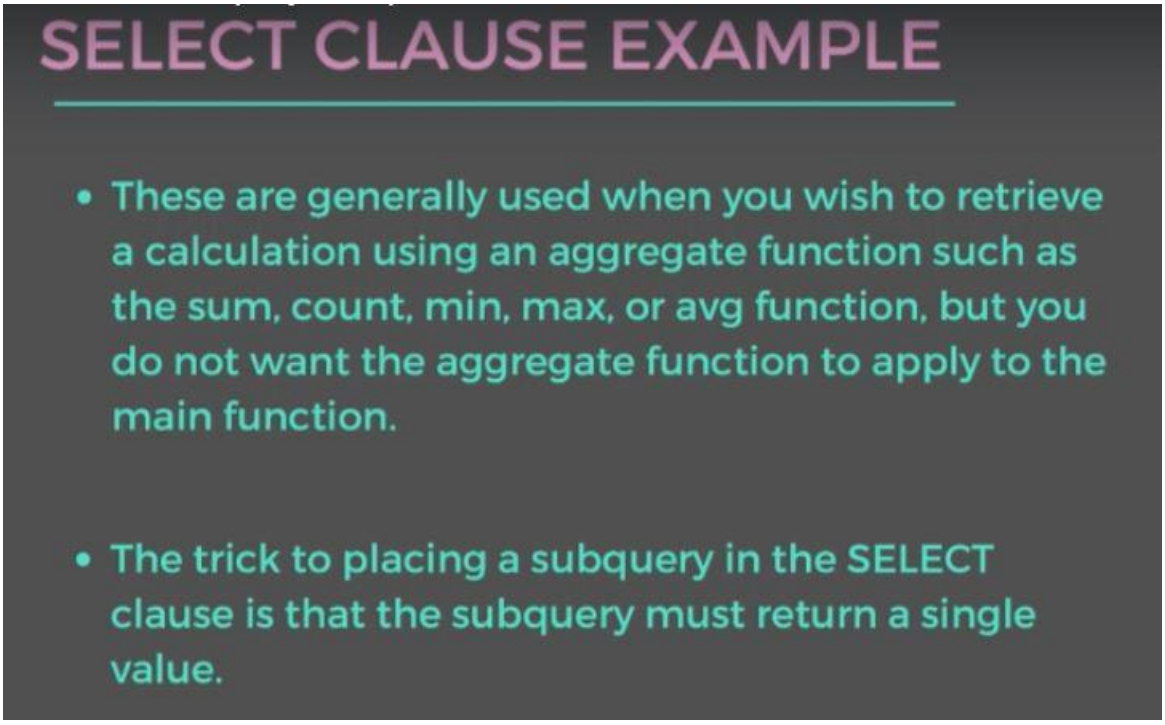
```
/* Show the list of unique films (film_id and title) rented
   by customers who paid an average amount of $4 or more to
   the company for any particular transaction. */

SELECT DISTINCT f.film_id, title
FROM (SELECT customer_id, ROUND(AVG(amount),2) AS mean_payment
      FROM payment
      GROUP BY 1
      HAVING ROUND(AVG(amount),2)>=4)sub1
JOIN rental r
ON sub1.customer_id = r.customer_id
JOIN inventory i
ON r.inventory_id = i.inventory_id
JOIN film f
ON i.film_id = f.film_id;
```

Data Output | Explain | Messages | Notifications

	film_id [PK] integer	title character varying (255)
1	391	Half Outfield
2	73	Bingo Talented

3. SELECT Clause Subqueries



Example 1:

Query Editor | Query History

```
1  /* Show the film_id and inventory count for each film. Add a column
2     that shows the latest transaction rental date. */
3
4  SELECT film_id, COUNT(inventory_id), (SELECT MAX(rental_date)
5                                        FROM rental)
6  FROM inventory
7  GROUP BY 1;
```

Example 2:

Query Editor | Query History

```
1  /* Show the store ID and customer count per store. Add a third column
2      showing the total amount of revenue for the whole company. */
3
4  SELECT store_id, COUNT(customer_id), (SELECT SUM(amount)
5                                        FROM payment)
6  FROM customer
7  GROUP BY 1;
```