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DS 30

Pada skema **dvdrental**

1. Dapatkan **nama lengkap (first name, dan last name)** customers dan waktu pengembalian untuk semua transaksi yang melebihi batas waktu pengembalian (7 hari)

JAWAB:

```
select
  concat(c.first_name, ' ', c.last_name) as full_name,
  r.return_date, r.rental_date,
  concat(
    EXTRACT(DAY FROM (r.return_date - r.rental_date)), ' hari, ',
    EXTRACT(HOUR FROM (r.return_date - r.rental_date)), ' jam, ',
    EXTRACT(MINUTE FROM (r.return_date - r.rental_date)), ' menit'
  ) AS day_hour_minute_difference
from
  customer c
inner join
  rental r on c.customer_id = r.customer_id
where
  r.return_date > r.rental_date + interval '7 days'
order by
  day_hour_minute_difference asc;
```

	A-Z full_name	return_date	rental_date	A-Z day_hour_minute_difference
1	Brandon Huey	2005-07-18 07:29:05.000	2005-07-11 07:28:05.000	7 hari, 0 jam, 1 menit
2	Jorge Olivares	2005-08-04 12:08:53.000	2005-07-28 11:58:53.000	7 hari, 0 jam, 10 menit
3	Helen Harris	2005-08-30 17:22:31.000	2005-08-23 17:12:31.000	7 hari, 0 jam, 10 menit
4	Heidi Larson	2005-08-07 01:16:04.000	2005-07-31 01:05:04.000	7 hari, 0 jam, 11 menit
5	Ross Grey	2005-08-08 19:21:49.000	2005-08-01 19:10:49.000	7 hari, 0 jam, 11 menit
6	Gina Williamson	2005-06-26 04:31:04.000	2005-06-19 04:19:04.000	7 hari, 0 jam, 12 menit
7	Steven Curley	2005-06-26 20:32:33.000	2005-06-19 20:20:33.000	7 hari, 0 jam, 12 menit
8	Victoria Gibson	2005-07-13 19:59:26.000	2005-07-06 19:47:26.000	7 hari, 0 jam, 12 menit
9	Dawn Sullivan	2005-06-26 09:20:45.000	2005-06-19 09:08:45.000	7 hari, 0 jam, 12 menit
10	Lee Hawks	2005-08-05 01:36:23.000	2005-07-29 01:23:23.000	7 hari, 0 jam, 13 menit
11	Hazel Warren	2005-08-04 19:41:23.000	2005-07-28 19:28:23.000	7 hari, 0 jam, 13 menit
12	Jennie Terry	2005-08-05 01:55:55.000	2005-07-29 01:42:55.000	7 hari, 0 jam, 13 menit
13	Victoria Gibson	2005-08-08 22:23:35.000	2005-08-01 22:09:35.000	7 hari, 0 jam, 14 menit
14	Louis Leone	2005-08-25 14:21:06.000	2005-08-18 14:06:06.000	7 hari, 0 jam, 15 menit
15	Daisy Bates	2005-07-14 09:35:11.000	2005-07-07 09:20:11.000	7 hari, 0 jam, 15 menit
16	Corey Hauser	2005-06-23 15:53:07.000	2005-06-16 15:37:07.000	7 hari, 0 jam, 16 menit
17	Perry Swafford	2005-06-22 12:45:41.000	2005-06-15 12:29:41.000	7 hari, 0 jam, 16 menit
18	Maria Miller	2005-08-08 16:08:00.000	2005-08-01 15:52:00.000	7 hari, 0 jam, 16 menit

- Tampilkan nama pelanggan yang melakukan transaksi peminjaman lebih dari sekali pada hari Senin! **Gunakan CTE!**

```
with monday_rentals as (
    select customer_id, rental_date
    from rental
    where extract(DOW from rental_date) = 1 --> 0 = sunday, 1= monday, etc.
),
frequent_customers as (
    select customer_id, COUNT(*) as transaction_count, ARRAY_AGG(rental_date) as
rental_dates
    FROM monday_rentals
    group by customer_id
    having COUNT(*) > 1
)
select CONCAT(c.first_name, ' ', c.last_name) as full_name, fc.transaction_count,
fc.rental_dates
from frequent_customers fc
inner join customer c on fc.customer_id = c.customer_id;
```

	A-Z full_name	123 transaction_count	rental_dates
> 1	Jared Ely	4	> 2005-08-22 16:33:39 [+3]
> 2	Mary Smith	5	> 2005-08-22 01:27:57 [+4]
> 3	Patricia Johnson	2	> 2005-08-01 09:45:26 [+1]
> 4	Linda Williams	2	> 2005-08-22 09:37:27 [+1]
> 5	Elizabeth Brown	5	> 2005-08-01 15:27:10 [+4]
> 6	Jennifer Davis	4	> 2005-07-11 15:01:54 [+3]
> 7	Maria Miller	9	> 2005-08-01 15:52:00 [+8]
> 8	Susan Wilson	5	> 2005-07-11 21:39:46 [+4]
> 9	Margaret Moore	6	> 2005-07-11 02:08:29 [+5]
> 10	Dorothy Taylor	3	> 2005-08-01 17:09:59 [+2]
> 11	Lisa Anderson	6	> 2005-06-20 23:49:12 [+5]
> 12	Nancy Thomas	3	> 2005-05-30 23:08:03 [+2]
> 13	Karen Jackson	4	> 2005-07-11 07:43:08 [+3]
> 14	Betty White	4	> 2005-08-22 08:43:50 [+3]
> 15	Helen Harris	5	> 2005-08-22 03:23:41 [+4]
> 16	Sandra Martin	5	> 2005-07-11 06:40:31 [+4]
> 17	Carol Garcia	4	> 2005-07-11 08:15:08 [+3]
> 18	Sharon Robinson	7	> 2005-07-11 15:53:00 [+6]

- Temukan nama aktor dan jumlah film yang dimainkan, serta peringkat aktor berdasarkan jumlah film. Urutkan berdasarkan peringkat secara **ascending**. Gunakan **RANK!**

```
select a.actor_id,
       concat(a.first_name,' ',a.last_name) as actor_name,
       count(fa.film_id)as film_count,
       rank () over (order by count(fa.film_id) desc) as rank
from
    actor a
join film_actor fa
```

```

on
a.actor_id = fa.actor_id
group by
a.actor_id, a.first_name, a.last_name
order by
rank asc;

```

actor_id	actor_name	film_count	rank
107	Gina Degeneres	42	1
102	Walter Torn	41	2
198	Mary Keitel	40	3
181	Matthew Carrey	39	4
23	Sandra Kilmer	37	5
81	Scarlett Damon	36	6
158	Vivien Basinger	35	7
60	Henry Berry	35	7
144	Angela Witherspoon	35	7
37	Val Bolger	35	7
106	Groucho Dunst	35	7
13	Uma Wood	35	7
150	Jayne Nolte	34	13
105	Sidney Crowe	34	13
65	Angela Hudson	34	13
92	Kirsten Akroyd	34	13
108	Warren Nolte	34	13
27	Julia Mcqueen	33	18
117	Renee Tracy	33	18

Pada skema **DS Salaries**

4. Tampilkan job_title yang memiliki salary_in_usd lebih besar dari rata-rata salary dari seluruh job_title. Namun, tampilkan hanya company_size = S. **Gunakan Subquery!**

```

with total_salary as
(
    select job_title, avg(salary_in_usd) as avg_salary, company_size
    from ds_salaries ds
    where company_size='S' and salary_in_usd > (select avg(salary_in_usd) from
ds_salaries ds )
    group by job_title, company_size
)
select * from total_salary;

```

A-Z job_title ▼	123 avg_salary ▼	A-Z company_size ▼	
Data Engineer	115,000	S	
Principal Data Scientist	416,000	S	
Lead Data Engineer	134,395.6666666667	S	
Cloud Data Engineer	160,000	S	
ML Engineer	256,000	S	
Machine Learning Engineer	125,750	S	
Computer Vision Software Engineer	150,000	S	
Director of Data Science	168,000	S	
Big Data Engineer	114,047	S	
Lead Data Scientist	190,000	S	
Machine Learning Scientist	190,000	S	