

```
-- Q:1 Workers With The Highest Salaries
```

```
select
worker_title
from
(select
t.worker_title,
max(w.salary)
from worker as w
join title as t
on t.worker_ref_id = w.worker_id
group by 1
order by 2 DESC) as t
limit 2
```

```
-- Q:2 Activity Rank
```

```
select
from_user,
count(*) as total_emails,
row_number() over( order by count(*) DESC, from_user) as rnk
from google_gmail_emails
group by 1
order by 2 DESC, 1
```

```
-- Q:3 Finding User Purchases
```

```
with cte1 as(
select
user_id,
created_at,
lead(created_at,1) over(partition by user_id order by created_at ) as next_date
from amazon_transactions
)
select
distinct user_id
```

-- Q:3 Finding User Purchases

```
with cte1 as(
select
user_id,
created_at,
lead(created_at,1) over(partition by user_id order by created_at ) as next_date
from amazon_transactions
)
select
distinct user_id
from
(
select
user_id,
datediff(next_date,created_at)
from cte1
where datediff(next_date,created_at) <= 7
) as t
```

-- Q:4 Monthly Percentage Difference

```
with cte as (
select *,
substring(created_at, 1, 7) as date
from sf_transactions)
, cte2 as
(select
date,
sum(value) as this_month,
lag(sum(value)) over( order by date) as last_month
from cte
group by 1 )
```

```
-- Q:4 Monthly Percentage Difference
```

```
with cte as (
```

```
select *,
```

```
substring(created_at, 1, 7) as date
```

```
from sf_transactions)
```

```
, cte2 as
```

```
(select
```

```
date,
```

```
sum(value) as this_month,
```

```
lag(sum(value)) over( order by date) as last_month
```

```
from cte
```

```
group by 1 )
```

```
select
```

```
date,
```

```
round((this_month - last_month) /last_month * 100, 2)
```

```
from cte2
```

```
group by 1
```

```
-- Q:5 New Products
```

```
select
```

```
company_name,
```

```
product_of_2020- product_of_2019
```

```
from
```

```
(select
```

```
company_name,
```

```
count(case when year = "2020" then product_name else Null end) as product_of_2020,
```

```
count(case when year = "2019" then product_name else Null end) as product_of_2019
```

```
from car_launches
```

```
group by 1
```

```
order by 1
```

```
) as t
```