BUSINESS FINANCE DATA ANALYSIS

--📊 Revenue Analysis

--What is the total revenue generated each month/year?

--Which business line contributes the most to overall revenue?

--What are the top 5 months with the highest revenue?

--How does revenue fluctuate month-over-month or year-over-year?

--What is the total revenue generated each month/year?

```
select  distinct month_name,year,month_sequence,date,revenue_or_expense,sum(amount)over(partition by revenue_or_expense,month_name

) as month_revenue

 from [business finanace]

 where Revenue_or_expense='revenue'

 order by Month_sequence
```

---verification-----

```
select sum(amount) as verification from [business finanace]

where Revenue_or_expense='revenue' and Month_sequence=3
```

--Which business line contributes the most to overall revenue?

```
 select top 1 * from (select distinct
business_line,year,revenue_or_expense,sum(amount)over(partition by
business_line,revenue_or_expense

 ) as total from [business finanace]

 where Revenue_or_expense='revenue'

 ) as a

 order by total desc
```

--What are the top 5 months with the highest revenue?

```
 select top 5 * from (select distinct month_name,year,revenue_or_expense,
sum(amount)over(partition by revenue_or_expense ,month_name) as total from
[business finanace]

 where Revenue_or_expense='revenue') as q

 order by total desc
```

--How does revenue fluctuate month-over-month ?

```
with cte1 as (select distinct Month_name,year,Revenue_or_expense,month_sequence,

 sum(amount)over(partition by month_name,revenue_or_expense)as

 month_revenue

 from [business finanace]

 where Revenue_or_expense='revenue'

),

 cte2 as (select *,lag(month_revenue)over(order by month_sequence) as
lagging_revenue from cte1)
```

```sql
select *,(month_revenue-lagging_revenue) as difference,

case

when (month_revenue-lagging_revenue) >0 then 'Profit'

when (month_revenue-lagging_revenue) <0 then 'loss'

else 'N/A' end as profit_or_loss

from cte2
```

-- Expense Analysis---

--What are the total expenses each month?

--Which expense sub-group has the highest spending?

--How have expenses changed month-over-month or year-over-year?

--What are the total expenses each month?

```sql
select distinct
Month_name,year,Month_sequence,Revenue_or_expense,abs(sum(Amount)over(partition by revenue_or_expense,

month_name )) as expense_rate from [business finanace]

where Revenue_or_expense='expense'

order by Month_sequence asc
```

--Which expense sub-group has the highest spending?

```
select top 1
year,Expense_subgroup,Revenue_or_expense,abs(sum(Amount)over(partition by
expense_subgroup,revenue_or_expense))as

highest_spending

from [business finanace]

where Revenue_or_expense='expense'

order by highest_spending desc
```

--How have expenses changed month-over-month or year-over-year?

```
with cte1 as(select distinct
month_name,Month_sequence,year,Revenue_or_expense,abs(sum(amount)over(partiti
on by revenue_or_expense,month_name)) as

total_expense from [business finanace]

where Revenue_or_expense='expense'

),

cte2 as (select *,lag(total_expense)over(order by month_sequence) as lagging from
cte1)

select *,total_expense-lagging as difference from cte2
```

-- Profitability Analysis----

--What is the net profit (revenue - expenses) each month?

```
 with cte1 as (select distinct Month_name,year,month_sequence,Revenue_or_expense
,sum(amount)over(partition by revenue_or_expense,month_name) as revenue from
[business finanace]

where Revenue_or_expense='revenue'),
```

```sql
cte2 as (select distinct Month_name,year,month_sequence,Revenue_or_expense
,abs(sum(amount)over(partition by revenue_or_expense,month_name)) as expense
from [business finanace]

where Revenue_or_expense='expense')

select a.Month_name,b.Year,a.Month_sequence,a.revenue,b.expense,a.revenue-
b.expense as netprofit from cte1 as a

join cte2 as b on a.Month_name=b.Month_name

order  by a.Month_sequence
```