--------SQL Query about employees details-------

----It include a 2 tables which is employee table and transaction table -------

-----employee table includes employeenumber,name,id,dob,department wherever transaction table include amount,dateoftransaction,employeenumber----

--Employee Analysis

--What is the average salary of employees in each department?

--Which employees have the highest number of transactions?

--What is the distribution of employees across different departments?

--Identify employees who have had no transactions in the past 6 months.

--Which department has the highest employee count ?

--What is the average salary of common employees in each department?

select department,avg(Amount) as Avg_amount from (select e.EmployeeNumber,e.EmployeeFirstName,e.EmployeeLastName,e.Department,t.Amount from tblemployee as e

join tblTransaction as t

on e.EmployeeNumber=t.EmployeeNumber

```
group by
e.EmployeeNumber,e.EmployeeFirstName,e.EmployeeLastName,e.Department,t.Amount)
as s

group by Department
```

--Which common employees have the highest number of transactions?

```
select top 1 employeefirstname,employeenumber,count(employeenumber) as counting
from (select
e.EmployeeNumber,e.EmployeeFirstName,e.Department,t.Amount,t.DateOfTransaction
from tblemployee as e

join tblTransaction as t

on e.EmployeeNumber=t.EmployeeNumber

group by
e.EmployeeNumber,e.EmployeeFirstName,e.Department,t.Amount,t.DateOfTransaction ) as
d

group by EmployeeNumber,EmployeeFirstName

order by counting desc
```
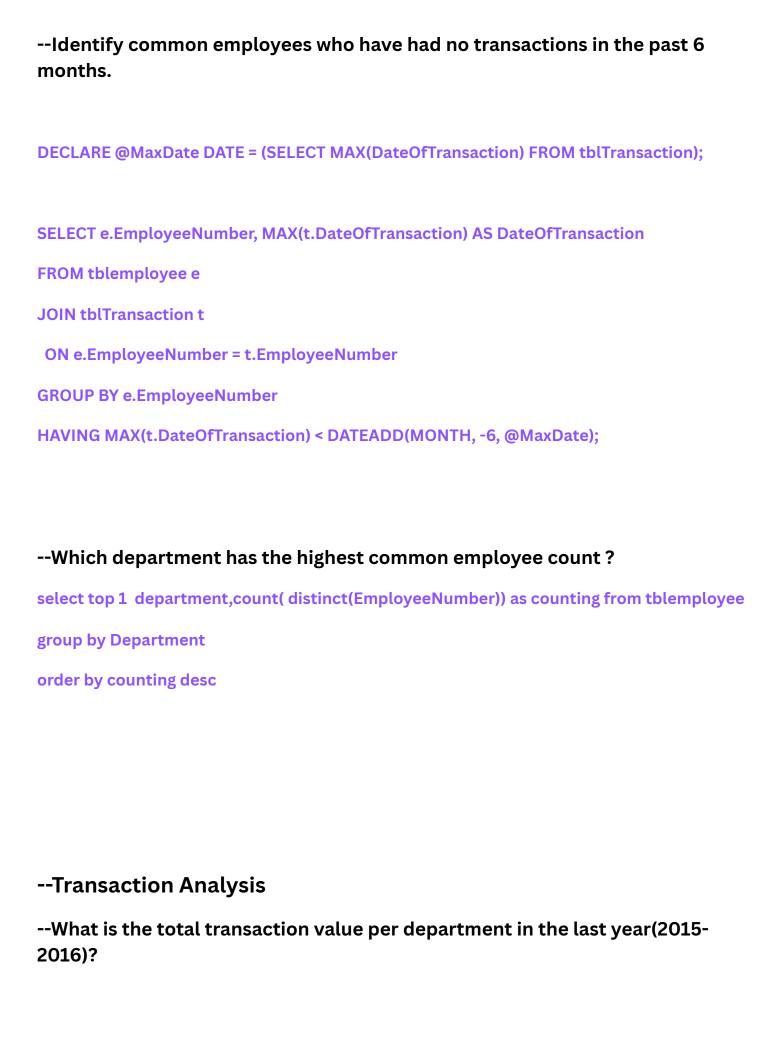
--What is the distribution of common employees across different departments?

```
select department, count(department) as number_of_employees from tblemployee

group by Department
```

---for verification---

```
select count(*) as count_of_department from tblemployee

where department ='litigation'  ---change the department for verification----
```

--Identify common employees who have had no transactions in the past 6 months.

```sql
DECLARE @MaxDate DATE = (SELECT MAX(DateOfTransaction) FROM tblTransaction);

SELECT e.EmployeeNumber, MAX(t.DateOfTransaction) AS DateOfTransaction
FROM tblemployee e
JOIN tblTransaction t
  ON e.EmployeeNumber = t.EmployeeNumber
GROUP BY e.EmployeeNumber
HAVING MAX(t.DateOfTransaction) < DATEADD(MONTH, -6, @MaxDate);
```

--Which department has the highest common employee count ?

```sql
select top 1  department,count( distinct(EmployeeNumber)) as counting from tblemployee
group by Department
order by counting desc
```

--Transaction Analysis

--What is the total transaction value per department in the last year(2015-2016)?

```sql
select sum(total) as totl,Department from (select year(t.DateOfTransaction) as
year,sum(t.amount)as total,e.Department from tblTransaction t

 join tblemployee e

on t.EmployeeNumber=e.EmployeeNumber

where year(t.DateOfTransaction) between 2015 and 2016

group by e.Department,t.DateOfTransaction) as d

group by Department
```

--verification--

```sql
select sum(amount) from tblTransaction t

join tblemployee e

on t.EmployeeNumber=e.EmployeeNumber

where year(t.dateoftransaction)>2014 and e.Department='commercial'
```

--What is the average transaction value for each employee?

```sql
select distinct t.EmployeeNumber,avg(t.Amount) as avg_amount from tblemployee e

join tblTransaction t

on e.EmployeeNumber=t.EmployeeNumber

group by t.EmployeeNumber

order by 1
```

--Department Analysis
--Which department handles the highest number of transactions?

```sql
select top 1 e.Department,count(t.DateOfTransaction) as transaction_counting from tblemployee e

join tblTransaction t

on e.EmployeeNumber=t.EmployeeNumber

group by e.Department

order by transaction_counting desc
```

--------------------OR----------------------

```sql
select  e.Department,count(t.DateOfTransaction) as transaction_counting from tblemployee e

join tblTransaction t

on e.EmployeeNumber=t.EmployeeNumber

where e.Department='hr'

group by e.Department
```

--------------verification--------------------

```sql
select * from tblemployee e

join tblTransaction t

on e.EmployeeNumber=t.EmployeeNumber

where e.Department='hr'
```