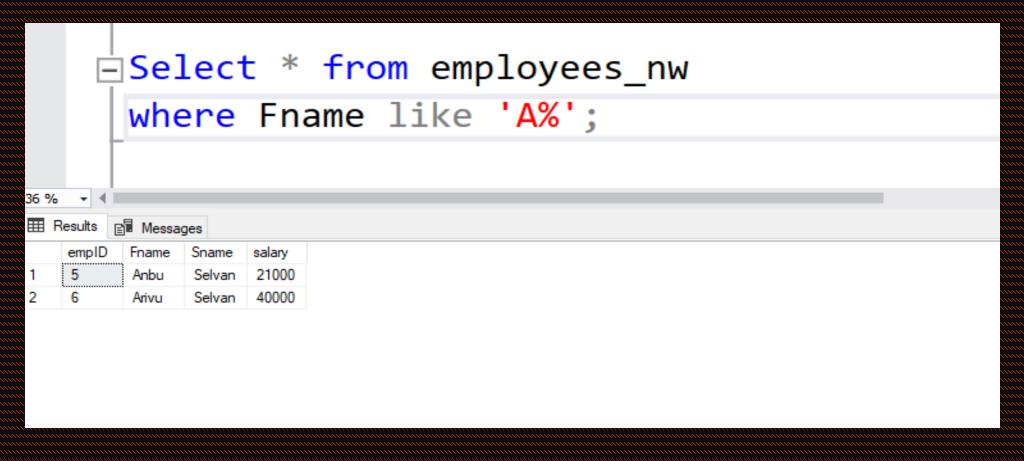# Important SQL Interview Questions and Answers 2

1) Write an SQL query to retrieve all details where name from employee table which starts with 'A'?

```sql
Select * from employees_nw
where Fname like 'A%';
```

36 %

Results | Messages

	empID	Fname	Sname	salary
1	5	Anbu	Selvan	21000
2	6	Arivu	Selvan	40000

2) Write a query to calculate the even and odd records from a Table?

```sql
Select *,
  Case when ([empID]%2)=0 then 'Even'
       When ([empID]%2)=1 then 'Odd'
       end as Even_odd
       from employees_nw;
```

Results | Messages

empID	Fname	Sname	salary	Even_odd
1	Ram	Sundar	23000	Odd
2	Sunar	Pichai	44000	Even
3	Mani	Kumar	67000	Odd
4	Babu	Kaja	85000	Even
5	Anbu	Selvan	21000	Odd
6	Arivu	Selvan	40000	Even
7	Karuna	Ramasamy	50000	Odd

3) Write a query to display the first and the last record from the employee table?

```sql
Select * from employees_nw
where empID in (Select MIN(empid) from employees_nw);


Select * from employees_nw
where empID in (Select Max(empid) from employees_nw);
```

Results | Messages

empID	Fname	Sname	salary
1	Ram	Sundar	23000

empID	Fname	Sname	salary
7	Karuna	Ramasamy	50000

4) How to concatenate the FIRSTNAME, MiddleName and LASTNAME from EMP table to give a complete name?

```sql
--Method 1
Select *, FirstName +' '+Isnull(MiddleName,'')+' '+LastName as FUllname from tbStudent;

--Method 2
Select *, FirstName +' '+coalesce(MiddleName,'')+' '+LastName as FUllname from tbStudent;

--Method 3
Select *, CONCAT(FirstName, ' ',MiddleName,' ',LastName) as FUllname from tbStudent;
```

Results | Messages

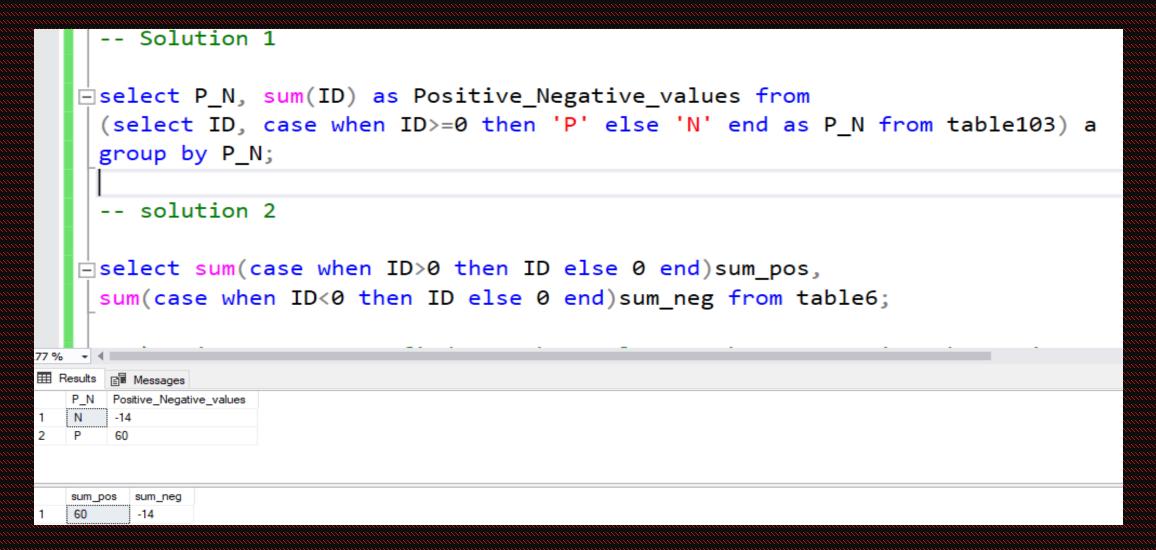| StudentId	FirstName	MiddleName	LastName	FUllname
1	Ankit	Kumar	Sharma	Ankit Kumar Sharma
2	Rahul	NULL	Singh	Rahul Singh
3	Mayank	NULL	Sharma	Mayank Sharma
4	Rajesh	Singh	Thakur	Rajesh Singh Thakur
5	Narender	NULL	Chauhan	Narender Chauhan
6	Puneet	Kumar	Verma	Puneet Kumar Verma
7	Varun	NULL	Shawan	Varun Shawan

5) How do you split the first name, middle name, and last name in SQL?

```sql
select FullName,
    substring(FullName,1,CHARINDEX(' ',fullname)-1) as FirstName,
    substring(Right(Fullname,len(fullname)-charindex(' ',fullname)),1,charindex(' ',
    Right(Fullname,len(fullname)-charindex(' ',fullname)))) As Middle_Name,
    SUBSTRING(Fullname,LEN(fullname)-CHARINDEX(' ',REVERSE(Fullname))+1,
    LEN(fullname)) As Last_name
    from tbStudent_new;
```

77 %

▦ Results ▣ Messages

	FullName	FirstName	Middle_Name	Last_name
1	Ankit Kumar Sharma	Ankit	Kumar	Sharma
2	Rahul Singh	Rahul		Singh
3	Mayank Sharma	Mayank		Sharma
4	Sachin Ramesh Tendulkar	Sachin	Ramesh	Tendulkar
5	Puneet Kumar Verma	Puneet	Kumar	Verma

6) Write an SQL query to report all customers who never order anything?

```sql
-- solution 1

select id,name from
(select a.id,A.name,B.orderid from table1a A left join table1b B on A.id =B.id) a
where orderid is null;

-- solution 2
select id,name from table1a
where id not in (select id from table1b);
```

77 %

Results Messages

	id	name
1	3	n3
2	4	n4

	id	name
1	3	n3
2	4	n4

7) Write a single query to calculate the sum of all positive value of x and the sum of all negative value of x?

```sql
-- Solution 1

select P_N, sum(ID) as Positive_Negative_values from
(select ID, case when ID>=0 then 'P' else 'N' end as P_N from table103) a
group by P_N;


-- solution 2

select sum(case when ID>0 then ID else 0 end)sum_pos,
sum(case when ID<0 then ID else 0 end)sum_neg from table6;
```

77 %

Results | Messages

	P_N	Positive_Negative_values
1	N	-14
2	P	60

	sum_pos	sum_neg
1	60	-14

8) Write a query to find out the employees who are getting the maximum salary in their departments?

```sql
Select * from
(Select *,
RANK() over(partition by deptno order by salary desc) RK
from table104) a
Where RK =1;
```

86 %

Results | Messages

	name	deptno	salary	RK
1	Anbu	1	2831	1
2	Logu	2	1006	1
3	Ramasamy	3	2960	1
4	Raju	4	2124	1

9) Find out department-wise minimum salary, maximum salary, total salary and average salary?

```sql
Select deptno, MAX(salary) as Max_salary, MIN(salary) as Min_salary,
SUM(salary) as Total_salary, AVG(salary) as Avg_salary from table104
group by deptno;
```

236 %

Results | Messages

	deptno	Max_salary	Min_salary	Total_salary	Avg_salary
1	1	2831	914	5733	1911
2	2	1006	796	1802	901
3	3	2960	1109	5393	1797
4	4	2124	1810	3934	1967

10) Write a query to find out the deviation from average salary for the employees who are getting more than the average?

```sql
-- Solution 1

select *, salary - avg_salary as Devivation from
(Select *,
AVG(salary) over() as avg_salary
from table104) a
where salary > avg_salary;

-- Solution 2

Select *, (select AVG(salary) from table104) as
Avg_salary, salary - (select AVG(salary) from table104) as Deviation
from table104
where salary > (select AVG(salary) from table104);
```

46 %

Results | Messages

	name	deptno	salary	Avg_salary	Deviation
1	Anbu	1	2831	1686	1145
2	Ajay	1	1988	1686	302
3	Ramasamy	3	2960	1686	1274
4	Raji	4	1810	1686	124