SQL Server Query Interview Questions and Answers

Return employee record with highest salary

```sql
SELECT * FROM employee WHERE Salary= (SELECT MAX(Salary) FROM employee)
```

Highest salary of an employee

```sql
SELECT MAX(Salary) FROM employee
```

2nd highest salary of an employee

```sql
SELECT MAX(Salary) FROM Employee WHERE salary <(SELECT MAX(Salary) FROM employee)
```

Select name, salary and department

```sql
SELECT Name, Salary, DepartmentName
FROM Employee
join Department
ON Employee.Department_Id =Department.ID
```

Delete duplicate record from a table

```sql
WITH EmployeesCTE as
(
SELECT*, ROW_NUMBER() over (PARTITION BY ID ORDER BY ID) as RowNumber
FROM Employees
)
DELETE FROM EmployeesCTE WHERE RowNumber>1

SELECT * FROM Employees
```

Return highest employee in department

```sql
SELECT DepartmentName, COUNT(*) as TOTAL_EMPLOYEE
FROM Employee
join Department
ON Employee.Department_Id=Department.ID
GROUP BY DepartmentName
ORDER BY TOTAL_EMPLOYEE DESC
```

Difference between INNER JOIN and LEFT JOIN

INNER JOIN: It is also known as SIMPLE JOIN which returns all rows from BOTH tables when it has at least one column matched

```sql
SELECT Name,DepartmentName
FROM Employee
```

```
INNER JOIN Department
ON Employee.Department_Id=Department.ID
```

LEFT JOIN (LEFT OUTER JOIN): This join returns all rows from a LEFT table and its matched rows from a RIGHT table**.**

```
SELECT Name,DepartmentName
FROM Employee
LEFT JOIN Department
ON Employee.Department_Id=Department.ID
```

SQL query to select all names that start with a given letter without like operator

```
SELECT * FROM Employee WHERE Name like 'a%'

SELECT * FROM Employee WHERE CHARINDEX('b',Name)=1

SELECT * FROM Employee WHERE LEFT(Name,1)='c'

SELECT * FROM Employee WHERE SUBSTRING(Name,1,1)='d'
```

Can we join two tables without primary foreign key relation?

Yes we can join

Real time example for right join

```
select Name,DepartmentName
from Employee
right join Department
on Employee.Department_Id=Department.DepartmentId
```

Join 3 tables in SQL server

```
SELECT Name,DepartmentName,BonusAmount
FROM Employee
JOIN Department
ON Employee.Department_Id=Department.DepartmentId
JOIN Bonus
ON Employee.Bonus_Id=Bonus.BonusId
```

SQL script to insert into many to many table

SQL query to find employees hired in last n months

```
Query For Employee Who Hired Last n year

select *, DATEDIFF(YEAR,HireDate, GETDATE()) as Different
from Employee
```

```sql
where DATEDIFF(YEAR,HireDate, GETDATE()) between 0 and 1
order by HireDate DESC
```

Query For Employee Who Hired Last n months
```sql
select *, DATEDIFF(MONTH,HireDate, GETDATE()) as Different
from Employee
order by HireDate DESC
```

Query For Employee Who Hired Last 30 Days
```sql
select *, DATEDIFF(DAY,HireDate, GETDATE()) as Different
from Employee
where DATEDIFF(DAY,HireDate, GETDATE()) between 1 and 30
order by HireDate DESC
```