

Window Function MIN MAX and Group BY

Problem: GET Department wise MIN, MAX Salary and Employee getting MIN, MAX salary

Input Table:

	emp_id	emp_name	emp_deptid	emp_dptnm	emp_sal
1	1	Sam	1	IT	6000
2	2	Tom	1	IT	2000
3	3	John	1	IT	3000
4	4	Rahul	2	HR	5000
5	5	Rohit	2	HR	3000
6	6	Rishbh	2	HR	1000

Desired Output:

	emp_deptid	emp_dptnm	MAX_SAL	MIN_SAL	MAX_SAL_EMP	MIN_SAL_EMP
1	1	IT	6000	2000	Sam	Tom
2	2	HR	5000	1000	Rahul	Rishbh

Solution:

WITH CTE_C AS

```
(
    SELECT
        E.*,
        MAX(E.emp_sal)OVER(PARTITION BY E.emp_deptid) AS MAX_SAL,
        MIN(E.emp_sal)OVER(PARTITION BY E.emp_deptid) AS MIN_SAL
    FROM DBO.TBL_EMP E
)
SELECT
    C.emp_deptid,
    C.emp_dptnm,
    C.MAX_SAL,
    C.MIN_SAL,
    MAX(CASE WHEN C.emp_sal=C.MAX_SAL THEN C.emp_name END) AS MAX_SAL_EMP,
    MAX(CASE WHEN C.emp_sal=C.MIN_SAL THEN C.emp_name END) AS MIN_SAL_EMP
FROM CTE_C C
GROUP BY C.emp_deptid, C.emp_dptnm,C.MAX_SAL,C.MIN_SAL
ORDER BY C.emp_deptid;
```

Table Creation script:

```
DROP TABLE IF EXISTS DBO.TBL_EMP;
```

```
GO
```

```
CREATE TABLE DBO.TBL_EMP
```

```
(
```

```
  emp_id tinyint not null,
```

```
  emp_name varchar(50) not null,
```

```
  emp_deptid tinyint not null,
```

```
  emp_dptnm varchar(50)not null,
```

```
  emp_sal int not null
```

```
);
```

```
insert into dbo.tbl_emp(emp_id,emp_name,emp_deptid,emp_dptnm,emp_sal)
```

```
values(1, 'Sam',1, 'IT',6000),
```

```
(2, 'Tom',1, 'IT',2000),
```

```
(3, 'John',1, 'IT',3000),
```

```
(4, 'Rahul',2, 'HR',5000),
```

```
(5, 'Rohit',2, 'HR',3000),
```

```
(6, 'Rishbh',2, 'HR',1000)
```

```
select * from dbo.tbl_emp;
```

	emp_id	emp_name	emp_deptid	emp_dptnm	emp_sal
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