What this query is doing?

It's finding the **third highest salary** from the **employees** table.

Query Recap

```
SELECT salary
FROM employees e1
WHERE 2 = (
   SELECT COUNT(DISTINCT salary)
   FROM employees e2
   WHERE e2.salary > e1.salary
);
```

Sample Data (employees table)

emp_id	name	salary
1	A	5000
2	В	7000
3	C	6000
4	D	8000
5	E	7000

Dry Run Logic

For each employee **e1**, the subquery:

```
SELECT COUNT(DISTINCT salary)
FROM employees e2
WHERE e2.salary > e1.salary;
```

counts how many distinct salaries are greater than e1. salary.

We are looking for those employees for which this count is **exactly 2**, i.e., **2 salaries are greater than theirs**, so their salary is the **3rd highest**.

III Step-by-step Analysis:

Unique salaries in descending order:

- $8000 \rightarrow 1st \text{ highest}$
- 7000 → 2nd highest
- 6000 → **3rd highest**
- $5000 \rightarrow 4$ th highest

Now, go row by row:

e1.salary	COUNT(DISTINCT salary > e1.salary)	Match? (count = 2)
8000	0	× No
7000	1 (only 8000)	× No
6000	2 (7000, 8000)	Yes
5000	3 (6000, 7000, 8000)	× No

☑ Final Output

salary

6000

This is the **third highest salary** from the table.