Input

```sql
SELECT d.name
FROM Employees e
JOIN Department d ON e.dept_id = d.id
GROUP BY d.name
ORDER BY AVG(e.salary) DESC
LIMIT 1;
```

Run SQL

Output

Name
Engineering

Available Tables

Customers

customer_id	first_name	last_name	age	country
1	John	Doe	31	USA
2	Robert	Luna	22	USA
3	David	Robinson	22	UK
4	John	Reinhardt	25	UK
5	Betty	Doe	28	UAE

Department

Id	Name
1	Engineering
2	HR
3	Marketing

Employee

id	name	salary	manager_id
1	Alice	90000	
2	Bob	70000	1
3	Charlie	80000	1
4	David	60000	2
5	Eve	75000	2
6	Frank	72000	3

Input

```sql
SELECT email
FROM Users
GROUP BY email
HAVING COUNT(*) > 1;
```

Run SQL

Output

email
a@example.com
b@example.com

Available Tables

2	Mouse	300	4
3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Shippings

shipping_id	status	customer
1	Pending	2
2	Pending	4
3	Delivered	3
4	Pending	5
5	Delivered	1

Users

id	email
1	a@example.com
2	b@example.com
3	a@example.com
4	c@example.com
5	b@example.com

```sql
SELECT DISTINCT salary
FROM Employee
ORDER BY salary DESC
LIMIT 1 OFFSET 3; -- 4th highest = offset 3 (starts from 0)
```

Output

salary
72000

Employees

ID	Name	salary	dept_id
1	Alice	90000	1
2	Bob	85000	1
3	Charlie	60000	2
4	David	62000	2
5	Eve	70000	3
6	Frank	73000	3

Input

```sql
SELECT d.name AS department_name, COUNT(e.id) AS employee_count
FROM Department d
LEFT JOIN Employees e ON d.id = e.dept_id
GROUP BY d.name;
```

Run SQL

Output

department_name	employee_count
Engineering	2
HR	2
Marketing	2

Available Tables

3	David	Robinson	22	UK
4	John	Reinhardt	25	UK
5	Betty	Doe	28	UAE

Department

Id	Name
1	Engineering
2	HR
3	Marketing

Employee

id	name	salary	manager_id
1	Alice	90000	
2	Bob	70000	1
3	Charlie	80000	1
4	David	60000	2
5	Eve	75000	2
6	Frank	72000	3

```sql
T *
Employees
joining_date >= date('now', '-3 months');
```

ut

	name	joining_date
	Divya	2025-05-15
	Kumar	2025-06-20
	Vikram	2025-07-01

2	Bob	1	85000
3	Charlie	1	87000
4	David	2	91000
5	Eve	2	80000
6	Frank	3	67000
			90000

Employees

id	name	joining_date
1	Arun	2025-03-10
2	Divya	2025-05-15
3	Kumar	2025-06-20
4	Sneha	2025-04-25
5	Vikram	2025-07-01
6	Meena	2025-02-28

Orders

order_id	item	amount	customer_id
1	Keyboard	400	4

Input

```sql
SELECT d.name, COUNT(e.id) AS employee_count
FROM Department d
LEFT JOIN Employee e ON d.id = e.dept_id
GROUP BY d.name;
```

Run SQL

Output

name	employee_count
Engineering	3
HR	2
Legal	0
Marketing	1

Available Tables

Department

id	name
1	Engineering
2	HR
3	Marketing
4	Legal

Employee

id	name	dept_id	Salary
1	Alice	1	90000
2	Bob	1	85000
3	Charlie	1	87000
4	David	2	91000
5	Eve	2	80000
6	Frank	3	67000
			90000

Orders

Input

```sql
SELECT name FROM Students GROUP BY name HAVING count(*)>1;
```

Run SQL

Output

name
Alice
Bob

Available Tables

4	Keyboard	400	1
5	Mousepad	250	2

Shippings

shipping_id	status	customer
1	Pending	2
2	Pending	4
3	Delivered	3
4	Pending	5
5	Delivered	1

Students

id	name
1	Alice
2	Bob
3	Alice
4	Charlie
5	Bob
6	David
7	Eve

```sql
SELECT *
FROM (
    SELECT e.*,
           DENSE_RANK() OVER (PARTITION BY dept_id ORDER BY salary DESC) AS rnk
    FROM Employees e
) ranked_employees
WHERE rnk <= 3;
```

Output

ID	Name	salary	dept_id	rnk
1	Alice	90000	1	1
2	Bob	85000	1	2
4	David	62000	2	1
3	Charlie	60000	2	2
6	Frank	73000	3	1
5	Eve	70000	3	2

5	Eve	75000	2
6	Frank	72000	3

Employees

ID	Name	salary	dept_id
1	Alice	90000	1
2	Bob	85000	1
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Orders

order_id	item	amount	customer_id
1	Keyboard	400	4
2	Mouse	300	4
3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Input

```sql
SELECT
    d.name AS department,
    e.name AS employee,
    e.salary
FROM
    Employee e
JOIN
    Department d ON e.dept_id = d.id
WHERE
    e.salary IN (
        SELECT MAX(salary)
        FROM Employee
        GROUP BY dept_id
    );
```

Run SQL

Output

department	employee	Salary
Engineering	Alice	90000
HR	David	91000
Marketing	Frank	67000

Available Tables

Department

id	name
1	Engineering
2	HR
3	Marketing
4	Legal

Employee

id	name	dept_id	Salary
1	Alice	1	90000
2	Bob	1	85000
3	Charlie	1	87000
4	David	2	91000
5	Eve	2	80000
6	Frank	3	67000
			90000

Orders

Input

```sql
SELECT D.name AS Department
FROM Employee E
JOIN Department D ON E.dept_id = D.id
GROUP BY D.name
ORDER BY AVG(E.salary) DESC
LIMIT 1;
```

Run SQL

Output

Department
Engineering

Available Tables

Department

id	name
1	Engineering
2	HR
3	Marketing
4	Legal

Employee

id	name	dept_id	Salary
1	Alice	1	90000
2	Bob	1	85000
3	Charlie	1	87000
4	David	2	91000
5	Eve	2	80000
6	Frank	3	67000
			90000

Orders

Input

Run SQL

```
SELECT name FROM Students GROUP BY name HAVING count(*)>1;
```

Output

name
Alice
Bob

Available Tables

4	Keyboard	400	1
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Shippings

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2	Pending	4
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4	Pending	5
5	Delivered	1

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2	Bob
3	Alice
4	Charlie
5	Bob
6	David
7	Eve

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Name
Engineering

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salary
72000

Employees

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```
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2	Bob	85000	1	2
4	David	62000	2	1
3	Charlie	60000	2	2
6	Frank	73000	3	1
5	Eve	70000	3	2

Orders

order_id	item	amount	customer_id
1	Keyboard	400	4
2	Mouse	300	4
3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Input

Run SQL

```
SELECT D.name AS Department
FROM Employee E
JOIN Department D ON E.dept_id = D.id
GROUP BY D.name
ORDER BY AVG(E.salary) DESC
LIMIT 1;
```

Output

Department
Engineering

Available Tables

Department

id	name
1	Engineering
2	HR
3	Marketing
4	Legal

Employee

id	name	dept_id	Salary
1	Alice	1	90000
2	Bob	1	85000
3	Charlie	1	87000
4	David	2	91000
5	Eve	2	80000
6	Frank	3	67000

Orders

Input

Run SQL

```
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FROM Department d
LEFT JOIN Employee e ON d.id = e.dept_id
GROUP BY d.name;
```

Output

department_name	employee_count
Engineering	3
HR	2
Legal	0
Marketing	1

Available Tables

Department

id	name
1	Engineering
2	HR
3	Marketing
4	Legal

Employee

id	name	dept_id
1	Alice	1
2	Bob	1
3	Charlie	1
4	David	2
5	Eve	2
6	Frank	3

Orders

order_id	item	amount	customer_id