

Task 6: Subqueries and Nested Queries

Tables :

Customers

	customer_id	customer_name	city
▶	1	Alice	Delhi
	2	Bob	Mumbai
	3	Charlie	Kolkata
	4	David	Delhi
•	NULL	NULL	NULL

Orders :

	order_id	customer_id	product_name	amount
▶	101	1	Laptop	75000.00
	102	2	Phone	25000.00
	103	1	Tablet	30000.00
	104	3	Headphones	5000.00
•	NULL	NULL	NULL	NULL

Employees :

	employee_id	name	department_id	salary
▶	201	Emma	10	60000.00
	202	John	10	50000.00
	203	Sophia	20	70000.00
	204	Mike	20	65000.00
•	NULL	NULL	NULL	NULL

Scalar query :

```
54 |
55 • SELECT order_id, product_name, amount
56 FROM orders
57 WHERE amount > (SELECT AVG(amount) FROM orders);
58
```



Output :

Result Grid			
Filter Rows: <input type="text"/>			
Edit:			
	order_id	product_name	amount
▶	101	Laptop	75000.00
*	NULL	NULL	NULL

Correlated Subquery :

```
58
59 • SELECT e.employee_id, e.name, e.salary, e.department_id
60 FROM employees e
61 WHERE e.salary > (
62     SELECT AVG(salary)
63     FROM employees
64     WHERE department_id = e.department_id
65 );
66
```

Output :

Result Grid				
Filter Rows: <input type="text"/>				
Edit:  				
	employee_id	name	salary	department_id
▶	201	Emma	60000.00	10
	203	Sophia	70000.00	20
*	NULL	NULL	NULL	NULL

Subquery IN :

```
66
67 • SELECT customer_id, customer_name
68     FROM customers
69     WHERE customer_id IN (
70         SELECT customer_id FROM orders
71     );
72
```

Output :

Result Grid			Filter Rows:
	customer_id	customer_name	
▶	1	Alice	
	2	Bob	
	3	Charlie	
*	NULL	NULL	

Subquery EXISTS :

```
72
73 • SELECT c.customer_id, c.customer_name
74     FROM customers c
75     WHERE EXISTS (
76         SELECT 1
77         FROM orders o
78         WHERE o.customer_id = c.customer_id
79     );
80
```

Output :

Result Grid			Filter Rows:
	customer_id	customer_name	
▶	1	Alice	
	2	Bob	
	3	Charlie	
•	NULL	NULL	

Subquery = :

```
81 • SELECT employee_id, name, salary
82 FROM employees
83 WHERE salary = (SELECT MAX(salary) FROM employees);
84
```

Output :

Result Grid				Filter Rows:
	employee_id	name	salary	
▶	203	Sophia	70000.00	
•	NULL	NULL	NULL	