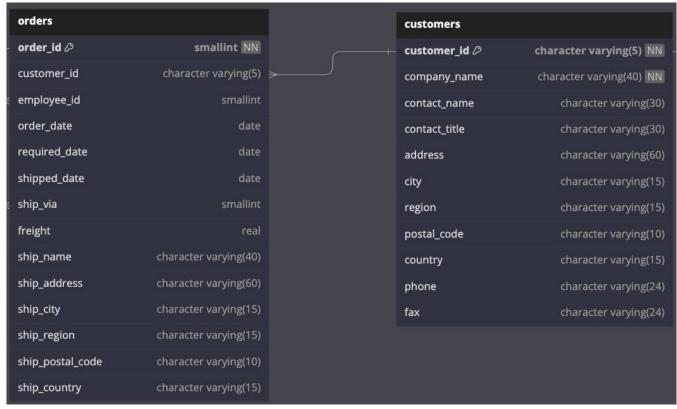
```
Питання 1
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the **company\_name** and total **number\_of\_orders** by the **customers** since December 31, 1995 (*for test use 2015, see note*). Show the **number\_of\_orders** greater than 10.

#### Use the model:



Note. The test is running using SQLite Database that has the same structure, but slightly different information! You need to change the year from **1995** to **2015** when you copy your code from **supabase**.

#### For example:

Тест	Result			
Testing with original db	company_name	number_of_orders		
	Save-a-lot Markets	11		

```
SELECT c.company_name, COUNT(o.order_id) AS number_of_orders
FROM customers AS c
JOIN orders AS o ON c.customer_id = o.customer_id
WHERE o.order_date > '2015-12-31'
GROUP BY c.customer_id
HAVING COUNT(o.order_id) > 10
ORDER BY company_name;
```

- -

	Тест	Expected		Got		
Ø	Testing with original	company_name number_	of_orders	company_name number	_of_orders	0
		Save-a-lot Markets 11		Save-a-lot Markets 11		
$\odot$	Testing with extra row	company_name		company_name		0
		number_of_orders		number_of_orders		
		Bottom-Dollar Markets	13	Bottom-Dollar Markets	13	
		Ernst Handel	19	Ernst Handel	19	
		Folk och fu HB	14	Folk och fu HB	14	
		HILARION-Abastos	12	HILARION-Abastos	12	
		LILA-Supermercado	12	LILA-Supermercado	12	
		La maison d'Asie	11	La maison d'Asie	11	
		QUICK-Stop	16	QUICK-Stop	16	
		Rattlesnake Canyon Grocery	14	Rattlesnake Canyon Grocery	14	
		Save-a-lot Markets	16	Save-a-lot Markets	16	
		Suprumes dulices	11	Suprumes dulices	11	

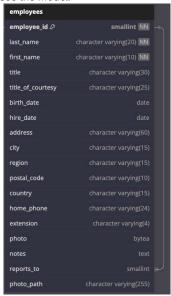
Пройшов усі тести! 🕢

Правильно

```
Питання 2
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the **employee\_id**, the **last\_name** and **first\_name** as **employee** (alias), and the **last\_name** and **first\_name** of who they report to as **manager** (alias) from the **employees** table sorted by **employee\_id**.

# Use the model:



Note. This is a SelfJoin using **report\_to** column.

#### For example:

Тест	Result		
Testing with original db	employee_id	employee	manager
	1	Davolio Nancy	Fuller Andrew
	2	Fuller Andrew	
	3	Leverling Janet	Fuller Andrew
	4	Peacock Margaret	Fuller Andrew
	5	Buchanan Steven	Fuller Andrew
	6	Suyama Michael	Buchanan Steven
	7	King Robert	Buchanan Steven
	8	Callahan Laura	Fuller Andrew
	9	Dodsworth Anne	Buchanan Steven
	11	Jhon Dou	
	12	Ann Miller	

- -

Тест		Tест Expected		Got				
9	Testing with original	employee_id	employee	manager	employee_id	employee	manager	(
	db							
		1	Davolio Nancy	Fuller	1	Davolio Nancy	Fuller	
		Andrew	Davoilo Nancy	ruller	Andrew	Davoito Namey	ruller.	
		2	Fuller Andrew		2	Fuller Andrew		
		3	Leverling Janet	Fuller	3	Leverling Janet	Fuller	
		Andrew	Level IIIIg Janet	ruiter	Andrew	Level IIIg Janet	ruller	
		4	Peacock Margaret	Fuller	4	Peacock Margaret	Fuller	
		Andrew	reacock Hai gai ec	ruiter	Andrew	reacock margarec	ruller	
		5	Buchanan Steven	Fuller	5	Buchanan Steven	Fuller	
		Andrew	buchanan Seeven	ruiter	Andrew	buchanan Steven	ruller	
		6	Suyama Michael	Buchanan	6	Suyama Michael	Buchanan	
		Steven	Juyuma Mizemaei	bachanan	Steven	Jayama Hizeriaez	bachanan	
		7	King Robert	Buchanan	7	King Robert	Buchanan	
		Steven	King Rober c	bachanan	Steven	King Rober c	Duchanan	
		8	Callahan Laura	Fuller	8	Callahan Laura	Fuller	
		Andrew			Andrew	2012011011 20010	. 41101	
		9	Dodsworth Anne	Buchanan	9	Dodsworth Anne	Buchanan	
		Steven			Steven			
		11	Jhon Dou		11	Jhon Dou		
		12	Ann Miller		12	Ann Miller		
	Testing with extra row	employee_id	employee	manager	employee_id	employee	manager	T
		1	Davolio Nancy	Fuller	1	Davolio Nancy	Fuller	
		Andrew	Davoiro Maney	ruller	Andrew	Davoilo Maney	ruller	
		2	Fuller Andrew		2	Fuller Andrew		
		3	Leverling Janet	Fuller	3	Leverling Janet	Fuller	
		Andrew	zever zzng bunec		Andrew	zever zzing bunee	. 4110.	
		4	Peacock Margaret	Fuller	4	Peacock Margaret	Fuller	
		Andrew	8 9	-	Andrew	8		
		5	Buchanan Steven	Fuller	5	Buchanan Steven	Fuller	
		Andrew			Andrew			
		6	Suyama Michael	Buchanan	6	Suyama Michael	Buchanan	
		Steven	,		Steven	,		
		7	King Robert	Buchanan	7	King Robert	Buchanan	
		Steven	J		Steven	Ü		
		8	Callahan Laura	Fuller	8	Callahan Laura	Fuller	
		Andrew			Andrew			
		9	Dodsworth Anne	Buchanan	9	Dodsworth Anne	Buchanan	
		Steven			Steven			
		11	Jhon Dou	Fuller	11	Jhon Dou	Fuller	
		Andrew			Andrew			
		1			12	Ann Miller		

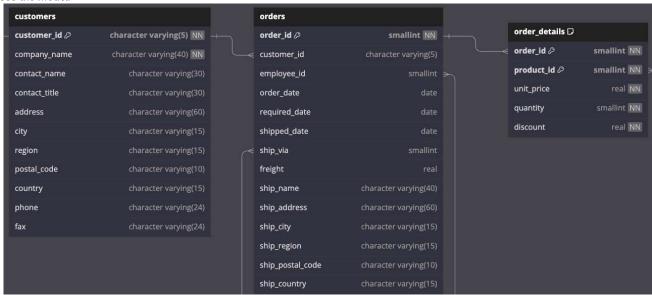
Пройшов усі тести! 🕢

Правильно

```
Питання 3
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the **contact\_name** of customer, **total\_sum** (alias for the calculated column **unit\_price\*quantity\***(1-**discount**)) from the **order\_details**, and **customers** table with the **discount** given on every purchase. Show only VIP customers with **total\_sum** greater than 10000.

#### Use the model:



Use ROUND() function to round **total\_sum** to the 2nd digit after the decimal point and take into account only those products that are discounted.

Note. The test is running using SQLite Database that has the same structure, but slightly different information!

In **supabase** you might need to cast the **<value>** of the ROUND function to **numeric** type which is not needed in the test.

## For example:

Тест	Result	
Testing with original db	contact_name	total_sum
	Christina Berglund	10594.33
	Georg Pipps	12461.36
	Horst Kloss	55707.02
	Howard Snyder	15742.25
	Jean Fresniure	21411.09
	Jose Pavarotti	49746.36
	Laurence Lebihan	13601.55
	Lucia Carvalho	19706.9
	Maria Larsson	12167.06
	Patricia McKenna	29021.27
	Peter Franken	14199.96
	Roland Mendel	53054.98

```
SELECT c.contact_name,
           ROUND(SUM(od.unit_price * od.quantity * (1 - od.discount)), 2) AS total_sum
 3
    FROM customers AS c
    JOIN orders AS o ON c.customer id = o.customer id
 5
    JOIN order_details AS od ON o.order_id = od.order_id
    WHERE od.discount > 0
6
7
    GROUP BY c.contact_name
8
    HAVING total_sum > 10000
9
    ORDER BY contact_name;
10
```

10

	Тест	Expected		Got		
0	Testing with original db	contact_name	_	contact_name	_	0
		Christina Berglund		Christina Berglund		
		Georg Pipps	12461.36	Georg Pipps	12461.36	
		Horst Kloss	55707.02	Horst Kloss	55707.02	
		Howard Snyder	15742.25	Howard Snyder	15742.25	
		Jean Fresniure	21411.09	Jean Fresniure	21411.09	
		Jose Pavarotti	49746.36	Jose Pavarotti	49746.36	
		Laurence Lebihan	13601.55	Laurence Lebihan	13601.55	
		Lucia Carvalho	19706.9	Lucia Carvalho	19706.9	
		Maria Larsson	12167.06	Maria Larsson	12167.06	
		Patricia McKenna	29021.27	Patricia McKenna	29021.27	
		Peter Franken	14199.96	Peter Franken	14199.96	
		Roland Mendel	53054.98	Roland Mendel	53054.98	
0	Testing with extra row	contact_name	total_sum	contact_name	total_sum	0
		Ann Miller	53054.98	Ann Miller	53054.98	
		Christina Berglund	10594.33	Christina Berglund	10594.33	
		Georg Pipps	12461.36	Georg Pipps	12461.36	
		Horst Kloss	55707.02	Horst Kloss	55707.02	
		Howard Snyder	15742.25	Howard Snyder	15742.25	
		Jean Fresniure	21411.09	Jean Fresniure	21411.09	
		Jose Pavarotti	49746.36	Jose Pavarotti	49746.36	
		Laurence Lebihan	13601.55	Laurence Lebihan	13601.55	
		Lucia Carvalho	19706.9	Lucia Carvalho	19706.9	
		Maria Larsson	12167.06	Maria Larsson	12167.06	
		Patricia McKenna	29021.27	Patricia McKenna	29021.27	
		Peter Franken	14199.96	Peter Franken	14199.96	

Пройшов усі тести! 🕢

**Правильно**Бали за цю відповідь: 1,00/1,00.

# **Питання 4**Правильно Балів 1,00 з 1,00

Create a report that shows the total quantity of products (alias **total\_units**) ordered. Only show records for products for which the **quantity** ordered is fewer than *200*.

Use the model:



# For example:

Тест	Result	
Testing with original db	product_name	total_units
	Chocolade Genen Shouyu Gravad lax	138 122 125
	Laughing Lumberjack Lager Mishi Kobe Niku	184 95

```
SELECT p.product_name,
SUM(od.quantity) AS total_units
FROM products AS p
JOIN order_details AS od ON p.product_id
GROUP BY p.product_name
HAVING total_units < 200;

The state of the stat
```

	Тест	Expected		Got		
0	Testing with original db	product_name	total_units	product_name	total_units	0
		Chocolade	138	Chocolade	138	
		Genen Shouyu	122	Genen Shouyu	122	
		Gravad lax	125	Gravad lax	125	
		Laughing Lumberjack Lager	184	Laughing Lumberjack Lager	184	
		Mishi Kobe Niku	95	Mishi Kobe Niku	95	
0	Testing with extra row	product_name	total_units	product_name	total_units	0
		Chocolade	90	Chocolade	90	
		Genen Shouyu	122	Genen Shouyu	122	
		Gravad lax	125	Gravad lax	125	
		Laughing Lumberjack Lager	184	Laughing Lumberjack Lager	184	
		Mishi Kobe Niku	95	Mishi Kobe Niku	95	

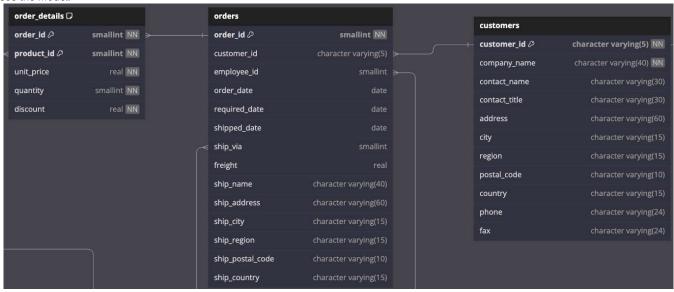
Правильно

```
Питання 5
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the total number of orders (alias **num\_orders**) by Customer since December 31, 1995 (*for test use 2015, see note*). The report should only return rows for which the **num\_orders** is greater than 5.

The result should be sorted by num\_orders descending.

Use the model:



Note. The test is running using SQLite Database that has the same structure, but slightly different information! You need to change the year from **1995** to **2015** when you copy your code from **supabase**.

## For example:

Тест	Result	
Testing with original db	company_name	num_orders
	Save-a-lot Markets	11
	Folk och fu HB	9
	Ernst Handel	9
	QUICK-Stop	8
	Bottom-Dollar Markets	8
	LINO-Delicateses	7
	Hanari Carnes	7
	Godos Cocina Tupica	7
	Suprumes dulices	6
	Rattlesnake Canyon Grocery	6
	HILARION-Abastos	6
	Bon app'	6

5.3

	Тест	Expected		Got		
0	Testing with original db	company_name	_	company_name	num_orders	Ø
		Save-a-lot Markets		Save-a-lot Markets	11	
		Folk och fu HB	9	Folk och fu HB	9	
		Ernst Handel	9	Ernst Handel	9	
		QUICK-Stop	8	QUICK-Stop	8	
		Bottom-Dollar Markets	8	Bottom-Dollar Markets	8	
		LINO-Delicateses	7	LINO-Delicateses	7	
		Hanari Carnes	7	Hanari Carnes	7	
		Godos Cocina Tupica	7	Godos Cocina Tupica	7	
		Suprumes dulices	6	Suprumes dulices	6	
		Rattlesnake Canyon Grocery	6	Rattlesnake Canyon Grocery	6	
		HILARION-Abastos	6	HILARION-Abastos	6	
		Bon app'	6	Bon app'	6	
0	Testing with extra row	company_name	_	company_name	num_orders	Ø
		Save-a-lot Markets	11	Save-a-lot Markets	11	
		Vins et alcools Chevalier	9	Vins et alcools Chevalier	9	
		Ernst Handel	9	Ernst Handel	9	
		QUICK-Stop	8	QUICK-Stop	8	
		Bottom-Dollar Markets	8	Bottom-Dollar Markets	8	
		LINO-Delicateses	7	LINO-Delicateses	7	
		Hanari Carnes	7	Hanari Carnes	7	
		Godos Cocina Tupica	7	Godos Cocina Tupica	7	
		Suprumes dulices	6	Suprumes dulices	6	
		Rattlesnake Canyon Grocery	6	Rattlesnake Canyon Grocery	6	
		HILARION-Abastos	6	HILARION-Abastos	6	
		Bon app'	6	Bon app'	6	

Пройшов усі тести! 🕢

Правильно

```
Питання 6
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the **company\_name**, **order\_id**, and total earnings (alias **total\_price**) for each order of the specified customer to which Northwind has sold more than \$10,000 worth for a single order, taking into account only those products that are **discount**ed.

The result should be sorted by total\_price descending

#### Use the model:



Use ROUND() function to round total\_price to the 2nd digit after the decimal point.

Note. The test is running using SQLite Database that has the same structure, but slightly different information!

In **supabase** you might need to cast the **<value>** of the ROUND function to **numeric** type which is not needed in the test.

## For example:

Тест	Result		
Testing with original db	company_name	order_id	total_price
	QUICK-Stop Save-a-lot Markets	10865 11030	16387.5 11120.55

```
SELECT c.company_name,
 1
 2
           o.order_id,
           ROUND(SUM(od.unit_price * od.quantity * (1 - od.discount)), 2) AS total_price
3
    FROM customers AS c
5
    JOIN orders AS o ON c.customer_id = o.customer_id
 6
    JOIN order_details AS od ON o.order_id = od.order_id
    WHERE od.discount > 0
8
    GROUP BY c.company_name, o.order_id
9
    HAVING total price > 10000
10
    ORDER BY total_price DESC;
11
                                                                                                                     11/
```

	Тест	Expected			Got			
<b>⊘</b>	Testing with original db	company_name	order_id	total_price	company_name	order_id	total_price	0
		QUICK-Stop Save-a-lot Markets	10865 11030	16387.5 11120.55	QUICK-Stop Save-a-lot Markets	10865 11030	16387.5 11120.55	
0	Testing with extra row	company_name	order_id	total_price	company_name	order_id	total_price	0
		QUICK-Stop Save-a-lot Markets	10865 11030	16387.5 11120.55	QUICK-Stop Save-a-lot Markets	10865 11030	16387.5 11120.55	

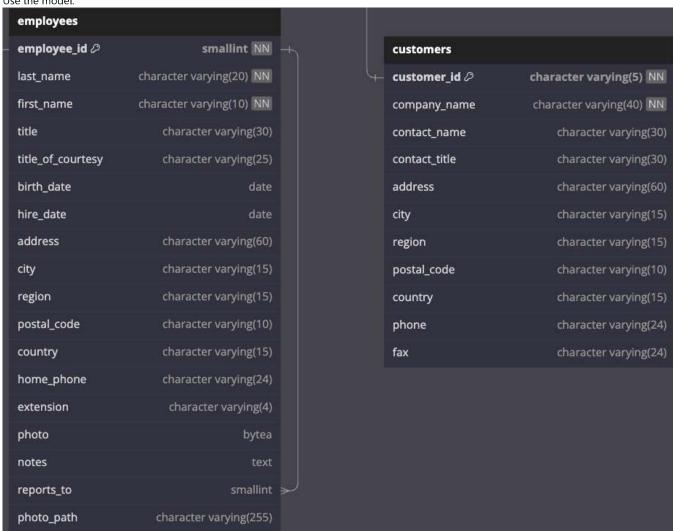


```
Питання 7
Правильно
Балів 1,00 з 1,00
```

Create a report that shows the number of employees (alias **num\_employees**) and number of customers (alias **num\_companies**) from each city that has employees in it.

The result should be ordered by num\_employees.

Use the model:



# For example:

Тест	Result			
Testing with original db	num_employees	num_companies	city	
	1	1	Kirkland	
	2	1	Seattle	
	4	6	London	

	Тест	Expected			Got			
0	Testing with original db	num_employees	num_companies	city	num_employees	num_companies	city	0
		1	1	Kirkland	1	1	Kirkland	
		2	1	Seattle	2	1	Seattle	
		4	6	London	4	6	London	
0	Testing with extra row	num_employees	num_companies	city	num_employees	num_companies	city	0
		1	1	Kirkland	1	1	Kirkland	
		2	1	Seattle	2	1	Seattle	
		4	1	Berlin	4	1	Berlin	

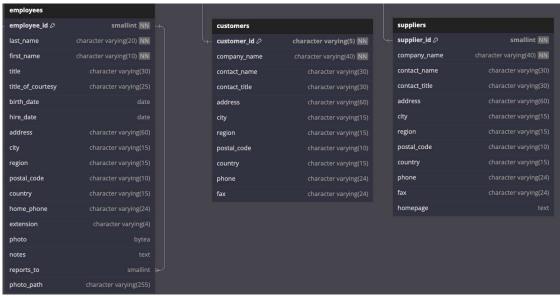
**Правильно**Бали за цю відповідь: 1,00/1,00.

```
Питання 8
Правильно
Балів 1,00 з 1,00
```

Get the **last\_name** and **first\_name** of employees (alias **full\_name**), **company\_name** and **phone** of all employees (**home\_phone** column), customers, and suppliers, who are situated in *London*.

Add the column (alias type) to the result set which should specify what type of counterparty (employee, customer, or supplier) it is.

### Use the model:



Note: Use UNION.

## For example:

Тест	Result		
Testing with original db	full_name	phone	type
	Around the Horn	(171) 555-7788	customer
	B's Beverages	(171) 555-1212	customer
	Consolidated Holdings	(171) 555-2282	customer
	Eastern Connection	(171) 555-0297	customer
	North/South	(171) 555-7733	customer
	Seven Seas Imports	(171) 555-1717	customer
	Anne Dodsworth	(71) 555-4444	employee
	Michael Suyama	(71) 555-7773	employee
	Robert King	(71) 555-5598	employee
	Steven Buchanan	(71) 555-4848	employee
	Exotic Liquids	(171) 555-2222	supplier

```
SELECT e.first_name | | ' ' | | e.last_name AS full_name, e.home_phone AS phone, 'employee' AS type
    FROM employees AS e
 2
 3
    WHERE e.city = 'London'
 4
    UNION
 6
 7
    SELECT c.company_name AS full_name, c.phone, 'customer' AS type
8
    FROM customers AS c
 9
    WHERE c.city = 'London'
10
11
    UNION
12
13
    SELECT s.company_name AS full_name, s.phone, 'supplier' AS type
14
    FROM suppliers AS s
15
    WHERE s.city = 'London'
16
17
    ORDER BY type, full_name;
18
```

\_ ¬

	Тест	Expected			Got			
9	Testing with original	full_name	phone	type	full_name	phone	type	6
	db							
		Around the Horn	(171) 555-7788		Around the Horn	(171) 555-7788		
		customer			customer			
		B's Beverages	(171) 555-1212		B's Beverages	(171) 555-1212		
		customer	()		customer	()		
		Consolidated Holdings customer	(171) 555-2282		Consolidated Holdings customer	(171) 555-2282		
		Eastern Connection	(171) FFF 0207		Eastern Connection	(171) FFF 0207		
		customer	(171) 555-0297		customer	(171) 555-0297		
		North/South	(171) 555-7733		North/South	(171) 555-7733		
		customer	(1/1) 555 7755		customer	(171) 333 7733		
		Seven Seas Imports	(171) 555-1717		Seven Seas Imports	(171) 555-1717		
		customer	(=/=/ 555 =/=/		customer	(=/=/ 555 =/=/		
		Anne Dodsworth	(71) 555-4444		Anne Dodsworth	(71) 555-4444		
		employee	, ,		employee	, ,		
		Michael Suyama	(71) 555-7773		Michael Suyama	(71) 555-7773		
		employee			employee			
		Robert King	(71) 555-5598		Robert King	(71) 555-5598		
		employee			employee			
		Steven Buchanan	(71) 555-4848		Steven Buchanan	(71) 555-4848		
		employee			employee			
		Exotic Liquids	(171) 555-2222		Exotic Liquids	(171) 555-2222		
		supplier			supplier			
)	Testing with extra row	full_name	phone	type	full_name	phone	type	1
			(171) FFF 7700			(171) FFF 7700		
		Around the Horn customer	(171) 555-7788		Around the Horn customer	(171) 555-7788		
		B's Beverages	(171) 555-1212		B's Beverages	(171) 555-1212		
		customer	(1/1) 333-1212		customer	(1/1) 333-1212		
		Consolidated Holdings	(171) 555-2282		Consolidated Holdings	(171) 555-2282		
		customer	(1/1) 333 2202		customer	(1/1) 333 2232		
		Eastern Connection	(171) 555-0297		Eastern Connection	(171) 555-0297		
		customer	(=,=, === ===		customer	(=,=, === ===		
		North/South	(171) 555-7733		North/South	(171) 555-7733		
		customer	•		customer	•		
		Seven Seas Imports	(171) 555-1717		Seven Seas Imports	(171) 555-1717		
		customer			customer			
		Exotic Liquids	(171) 555-2222		Exotic Liquids	(171) 555-2222		
		supplier			supplier			

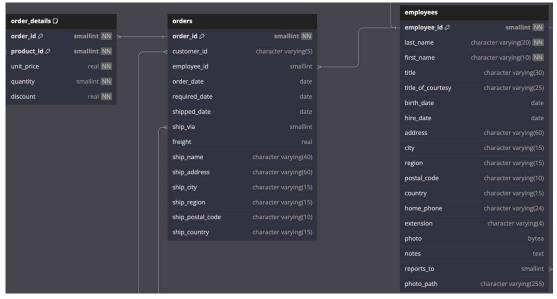
Пройшов усі тести! 🕢

Правильно

```
Питання 9
Правильно
Балів 1,00 з 1,00
```

Write the query which would show the list of employees (**first\_name** and **last\_name**) and their total sales with **discount** (alias **total\_sales**) who have sold more than 200 positions of products.

Use the model:



Note. Use ROUND() function to round the total sales values to the 2nd digit.

Note. The test is running using SQLite Database that has the same structure, but slightly different information!

In **supabase** you might need to cast the **<value>** of the ROUND function to **numeric** type which is not needed in the test.

## For example:

Тест	Result		
Testing with original db	first_name	last_name	total_sales
	Andrew Janet Laura Margaret Nancy	Fuller Leverling Callahan Peacock Davolio	166537.76 202812.84 126862.28 232890.85 192107.6

```
SELECT e.first_name, e.last_name,

ROUND(SUM(od.unit_price * od.quantity * (1 - od.discount)), 2) AS total_sales

FROM employees AS e

JOIN orders AS o ON e.employee_id = o.employee_id

GROUP BY e.employee_id

HAYING COUNT(od.order_id) > 200

ORDER BY first_name;
```

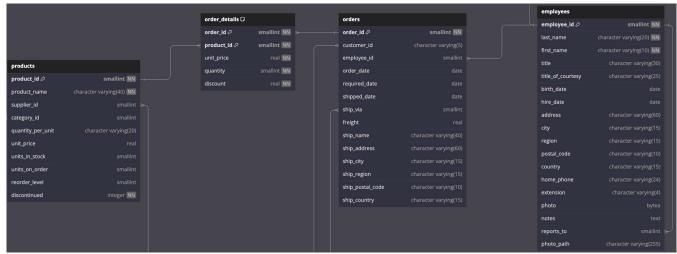
	Тест	Expected			Got			
0	Testing with original db	first_name	last_name	total_sales	first_name	last_name	total_sales	0
		Andrew	Fuller	166537.76	Andrew	Fuller	166537.76	
		Janet	Leverling	202812.84	Janet	Leverling	202812.84	
		Laura	Callahan	126862.28	Laura	Callahan	126862.28	
		Margaret	Peacock	232890.85	Margaret	Peacock	232890.85	
		Nancy	Davolio	192107.6	Nancy	Davolio	192107.6	
0	Testing with extra row	first_name	last_name	total_sales	first_name	last_name	total_sales	0
		Dou	Jhon	166537.76	Dou	Jhon	166537.76	
		Janet	Leverling	202812.84	Janet	Leverling	202812.84	
		Laura	Callahan	126862.28	Laura	Callahan	126862.28	
		Margaret	Peacock	232890.85	Margaret	Peacock	232890.85	
		Nancy	Davolio	192107.6	Nancy	Davolio	192107.6	

Правильно

# Питання **10**Правильно Балів 1,00 з 1,00

Write the query which would show the names of **employees** who sell the products of more than 25 suppliers during the year 1996 (*for test use 2016, see note*).

### Use the model:



Note. The test is running using SQLite Database that has the same structure, but slightly different information! You need to change the year from **1996** to **2016** when you copy your code from **supabase**. Also, a reminder that you need to use function **strftime('%Y', order\_date)** to extract year from date instead of PostgreSQL **EXTRACT** when you copy your code from **supabase**.

#### For example:

Тест	Result	
Testing with original db	first_name	last_name
	Andrew	Fuller
	Janet	Leverling
	Laura	Callahan
	Margaret	Peacock
	Nancy	Davolio

```
SELECT e.first_name, e.last_name
    FROM employees AS e
    JOIN orders AS o ON e.employee_id = o.employee_id
 3
    JOIN order_details AS od ON o.order_id = od.order_id
 5
    JOIN products AS p ON od.product_id = p.product_id
    JOIN suppliers AS s ON p.supplier_id = s.supplier_id
    WHERE strftime('%Y', o.order_date) = '2016'
 7
 8
    GROUP BY e.employee_id
    HAVING COUNT(DISTINCT s.supplier_id) > 25
9
10
    ORDER BY first_name;
11
12
                                                                                                                    11/
```

	Тест	Expected		Got		
<b>⊘</b>	Testing with original db	first_name Andrew Janet Laura Margaret Nancy	last_name Fuller Leverling Callahan Peacock Davolio	first_name Andrew Janet Laura Margaret Nancy	last_name Fuller Leverling Callahan Peacock Davolio	<b>⊗</b>
<b>⊘</b>	Testing with extra row	first_name Dou Janet Laura Margaret Nancy	last_name Jhon Leverling Callahan Peacock Davolio	first_name Dou Janet Laura Margaret Nancy	last_name Jhon Leverling Callahan Peacock Davolio	<b>⊘</b>

Правильно