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[hackerank.com/test/p38nfei5da/questions/3em5dg1lm13](https://hackerrank.com/test/p38nfei5da/questions/3em5dg1lm13)

## 2. Business Expansion

As part of business expansion efforts at a company, your help is needed to find all pairs of customers and agents who have been in contact more than once. For each such pair, display the user id, first name, and last name, and the customer id, name, and the number of their contacts. Order the result by user id ascending.

▶ Schema

▶ Sample Data Tables

Language MS SQL Server Autocomplete not supported

```
1 > SET NOCOUNT ON; ...
2
3 /*
4 Enter your query below.
5 Please append a semicolon ";" at the end of the query
6 */
7
8
9 go
```

I

Test Results



Zur Suche Text hier eingeben



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## 2. Business Expansion

As part of business expansion efforts at a company, your help is needed to find all pairs of customers and agents who have been in contact more than once. For each such pair, display the user id, first name, and last name, and the customer id, name, and the number of their contacts. Order the result by user id ascending.

### ▼ Schema

There are 3 tables: customer, user\_account, contact.

customer		
Name	Type	Description
id	int	This is a primary key
customer_name	varchar(255)	Name of the customer
city_id	int	A unique id for the city in which the customer resides
customer_address	varchar(255)	Customer's address
contact_person	varchar(255)	Person of contact. Can be null.
email	varchar(128)	Email address of the customer
phone	varchar(128)	Phone number for the customer
is_active	int	Boolean to denote if the customer is active

user_account		
Name	Type	Description
id	int	This is a primary key
first_name	varchar(64)	First name of the user
last_name	varchar(64)	Last name of the user
user_name	varchar(128)	user name for the user
password	varchar(255)	password of the account

Language MS SQL Server Autocomplete not supported

```
1 > SET NOCOUNT ON;
2
3 /*
4  Enter your query below.
5  Please append a semicolon ";" at the end of the query
6
7
8 OUTPUT:
9
10 pair of customers and agents with > 1 contact
11
12 user_id,
13 first_name,
14 last_name,
15 customer_id,
16 name,
17 number of their contacts
18
19 ORDER BY user_id
20
21
22 */
23
24 go
```

### Test Results

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[hackerank.com/test/fp38nfei5da/questions/3em5dg1lmt3](https://hackerrank.com/test/fp38nfei5da/questions/3em5dg1lmt3)

Schema

There are 3 tables: customer, user\_account, contact.

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id	int	This is a primary key
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customer_address	varchar(255)	Customer's address
contact_person	varchar(255)	Person of contact. Can be null.
email	varchar(128)	Email address of the customer
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user_account		
Name	Type	Description
id	int	This is a primary key
first_name	varchar(64)	First name of the user
last_name	varchar(64)	Last name of the user
user_name	varchar(128)	user name for the user
password	varchar(255)	password of the account
email	varchar(128)	email address of the user
phone	varchar(128)	contact number for the user. Can be null.
is_active	int	Boolean to denote if the user_account is active

contact		
---------	--	--

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16 name,
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18
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20
21
22 */
23
24 GO
```

Test Results

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<https://hackerrank.com/test/p38nfefida/questions/3em5dg1lmt3>

user\_account

Name	Type	Description
id	int	This is a primary key
first_name	varchar(64)	First name of the user
last_name	varchar(64)	Last name of the user
user_name	varchar(128)	user name for the user
password	varchar(255)	password of the account
email	varchar(128)	email address of the user
phone	varchar(128)	contact number for the user. Can be null.
is_active	int	Boolean to denote if the user_account is active

contact

Name	Type	Description
id	int	This is a primary key
user_account_id	int	Foreign key referencing user_account.id
customer_id	int	Foreign key referencing customer.id
contact_type_id	int	Type of the contact
contact_outcome_id	int	Can be null
additional_comment	varchar(255)	Can be null
initiated_by_customer	int	Boolean
initiated_by_user	int	Boolean

▶ Sample Data Tables

Language MS SQL Server Autocomplete not supported

```
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19 ORDER BY user_id
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21
22 */
23
24 GO
```

Test Results

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[hackerank.com/test/fp38nfeif5da/questions/3em5dg1lmt3](https://hackerrank.com/test/fp38nfeif5da/questions/3em5dg1lmt3)

Sample Data Tables

customer					
<b>id</b>	<b>customer_name</b>	<b>city_id</b>	<b>customer_address</b>	<b>contact_person</b>	<b>email</b>
1	Drogerie Wien	1	Deckergasse 15A	Emil Steinbach	emil@drogiewien.com
2	Cosmetics Store	4	Watling Street 347	Jeremy Corbyn	jeremy@c-store.org
3	Kosmetikstudio	3	Rothenbaumchaussee 53	Willy Brandt	willy@kosmetikstudio.com
4	Neue Kosmetik	1	Karlsplatz 2	NULL	info@neukosmetik.com
5	Bio Kosmetik	2	Motzstraße 23	Clara Zetkin	clara@biokosmetik.org
6	K-Wien	1	Kärntner Straße 204	Maria Rauch-Kallat	maria@kwien.org
7	Natural Cosmetics	4	Clerkenwell Road 14B	Glenda Jackson	glenaj@natural-cosmetics.com
8	Kosmetik Plus	2	Unter den Linden 1	Angela Merkel	angela@k-plus.com
9	New Line Cosmetics	4	Devonshire Street 92	Oliver Cromwell	oliver@nlc.org

user_account						
<b>id</b>	<b>first_name</b>	<b>last_name</b>	<b>user_name</b>	<b>password</b>	<b>email</b>	<b>ph...</b>
1	Jürgen	Klopp	jklopp	d0406ee29d848474a1897058df4634ad	jklopp@gmail.com	0933...
2	José	Mourinho	jmourinho	64bd7f38bef780050096bf872084ac7	jmourinho@gmail.com	0938...

Language MS SQL Server Autocomplete not supported

```
1 > SET NOCOUNT ON; ...
2 
3 /*
4 Enter your query below.
5 Please append a semicolon ";" at the end of the query
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8 OUTPUT:
9 
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11 
12 user_id,
13 first_name,
14 last_name,
15 customer_id,
16 name,
17 number of their contacts
18 
19 ORDER BY user_id
20 
21 
22 */
23 
24 GO
```

Test Results

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ALL

1

2

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[hackerrank.com/test/p38nfeifida/questions/3em5dg1lm13](#)

8	Kosmetik Plus	2	Unter den Linden 1	Angela Merkel	angela@k-plus.com
9	New Line Cosmetics	4	Devonshire Street 92	Oliver Cromwell	oliver@nlc.org

**user\_account**

id	first_name	last_name	user_name	password	email	ph:
1	Jürgen	Klopp	jklopp	d0406ee29d848474a18970508df4634ad	jklopp@gmail.com	09333
2	José	Mourinho	jmourinho	64bd7f38bef780050096fb872084ac7	jmourinho@gmail.com	0938
3	Josep	Guardiola	jguardiola	98a87d2631b766915c9d1bf584c3fd7b	jguardiola@gmail.com	NL
4	Alex	Ferguson	aferguson	bda97a3a31b44206e6bc3d5f40f6023e	aferguson@gmail.com	0939.

**contact**

id	user_account_id	customer_id	contact_type_id	contact_outcome_id	additional_comment	init
1	4	7	1	4	customer agreed to our offer	
2	1	2	1	1	don't want our products	
3	2	9	1	4	interested in our offer	
4	3	1	1	2	call him tomorrow	
5	1	6	1	4	purchased our products	
6	4	3	1	4	customer agreed to our offer	
7	3	5	1	4	loves our products	
8	4	4	1	4	customer agreed to our offer	
9	3	8	1	3	call him next month	
10	4	7	2	2	call him next month	
11	3	9	3	3	visit him next week	

The pair of agents and customers represented by (user\_account\_id, customer\_id) who have been in contact more than once is (4, 7) only and have contacted each other twice.

Language MS SQL Server Autocomplete not supported

```
1 > SET NOCOUNT ON; ...
2 /*
3  Enter your query below.
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5 
6 OUTPUT:
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8 pair of customers and agents with > 1 contact
9 
10 user_id,
11 first_name,
12 last_name,
13 customer_id,
14 name,
15 number of their contacts
16 
17 ORDER BY user_id
18 
19 */
20 
21 
22 */
23 
24 GO
```

Test Results

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24m left ALL 1 2

hackerrank.com/test/p38nfeifida/questions/3em5dg11mt3

user_account		
Name	Type	Description
id	int	This is a primary key
first_name	varchar(64)	First name of the user
last_name	varchar(64)	Last name of the user
user_name	varchar(128)	user name for the user
password	varchar(255)	password of the account
email	varchar(128)	email address of the user
phone	varchar(128)	contact number for the user. Can be null.
is_active	int	Boolean to denote if the user_account is active

contact		
Name	Type	Description
id	int	This is a primary key
user_account_id	int	Foreign key referencing user_account.id
customer_id	int	Foreign key referencing customer.id
contact_type_id	int	Type of the contact
contact_outcome_id	int	Can be null
additional_comment	varchar(255)	Can be null
initiated_by_customer	int	Boolean
initiated_by_user	int	Boolean

▼ Sample Data Tables

customer					
id	customer_name	city_id	customer_address	contact_person	email
1	Alex Ferguson	1	123 Main Street	Alex Ferguson	alex.ferguson@naturalcosmetics.com
2	Rebecca Johnson	2	456 Elm Street	Rebecca Johnson	rebecca.johnson@naturalcosmetics.com
3	David Wilson	3	789 Oak Street	David Wilson	david.wilson@naturalcosmetics.com
4	Samantha Lee	4	567 Pine Street	Samantha Lee	samantha.lee@naturalcosmetics.com
5	Matthew Hayes	5	234 Cedar Street	Matthew Hayes	matthew.hayes@naturalcosmetics.com
6	Karen Clark	6	890 Birch Street	Karen Clark	karen.clark@naturalcosmetics.com
7	James Wilson	7	123 Elm Street	James Wilson	james.wilson@naturalcosmetics.com
8	Sarah Lee	8	456 Cedar Street	Sarah Lee	sarah.lee@naturalcosmetics.com
9	Matthew Hayes	9	789 Birch Street	Matthew Hayes	matthew.hayes@naturalcosmetics.com
10	Karen Clark	10	234 Elm Street	Karen Clark	karen.clark@naturalcosmetics.com
11	James Wilson	11	567 Cedar Street	James Wilson	james.wilson@naturalcosmetics.com

Language MS SQL Server Autocomplete not supported

```
10 name,
11 number of their contacts
12
13 order by user id
14
15 */
16
17 go
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
```

Line: 30 Col: 38

Test Results Run Query Submit

Incorrect answer.

✗ Test case 0

3	2	9
4	3	1
5	3	5
6	3	8
7	3	9
8	4	3
9	4	4
10	4	5
11	4	7

Expected Output

1 4 Alex Ferguson 7 Natural Cosmetics 2



21m left ALL 1 2

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[hackerank.com/test/p38nfeifda/questions/3em5dg1lmt3](https://hackerrank.com/test/p38nfeifda/questions/3em5dg1lmt3)

user_account		
Name	Type	Description
id	int	This is a primary key
first_name	varchar(64)	First name of the user
last_name	varchar(64)	Last name of the user
user_name	varchar(128)	user name for the user
password	varchar(255)	password of the account
email	varchar(128)	email address of the user
phone	varchar(128)	contact number for the user. Can be null.
is_active	int	Boolean to denote if the user_account is active

  

contact		
Name	Type	Description
id	int	This is a primary key
user_account_id	int	Foreign key referencing user_account.id
customer_id	int	Foreign key referencing customer.id
contact_type_id	int	Type of the contact
contact_outcome_id	int	Can be null
additional_comment	varchar(255)	Can be null
initiated_by_customer	int	Boolean
initiated_by_user	int	Boolean

▼ Sample Data Tables

customer					
id	customer_name	city_id	customer_address	contact_person	email

Language MS SQL Server Autocomplete not supported

```
40 name,
41 number of their contacts
42
43 order by user id
44
45 */
46
47 go
48
49 SELECT
50     ROW_NUMBER() OVER(PARTITION BY user_account_id, customer_id ORDER BY
51     user_account_id, customer_id,
52         customer_id
53     FROM contact
54     ORDER BY user_account_id, customer_id
55
```

Line: 27 Col: 116

Test Results

Run Query Submit

Incorrect answer.

X Test case 0

3 1 2 9
4 1 3 1
5 1 3 5
6 1 3 8
7 1 3 9
8 1 4 3
9 1 4 4
10 1 4 7
11 2 4 7

Expected Output

1 4 Alex Ferguson 7 Natural Cosmetics 2



Zur Suche Text hier eingeben



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```
5
6 WITH row_number as (
7
8     SELECT
9
10        user_account_id,
11        ua.first_name,
12        ua.last_name,
13        customer_id,
14        customer_name,
15        ROW_NUMBER() OVER(PARTITION BY user_account_id, customer_id ORDER BY
16        user_account_id, customer_id) as row#
17     FROM contact c
18     JOIN customer cust ON cust.id = c.customer_id
19     DOIN user_account ua ON ua.id = c.user_account_id
20
21 )
```

Line: 38 Col: 53

Language MS SQL Server

⚠ Autocomplete not supported ⓘ

```
31     ua.first_name,  
32     ua.last_name,  
33     customer_id,  
34     customer_name,  
35     ROW_NUMBER() OVER(PARTITION BY user_account_id, customer_id ORDER BY  
user_account_id, customer_id) as row#  
36 FROM contact c  
37 JOIN customer cust ON cust.id = c.customer_id  
38 JOIN user_account ua ON ua.id = c.user_account_id  
39  
40 )  
41  
42 SELECT  
43     *  
44 FROM row_number  
45 WHERE row# = 2  
46 ORDER BY user_account_id, customer_id  
47
```

Line: 46 Col: 38