

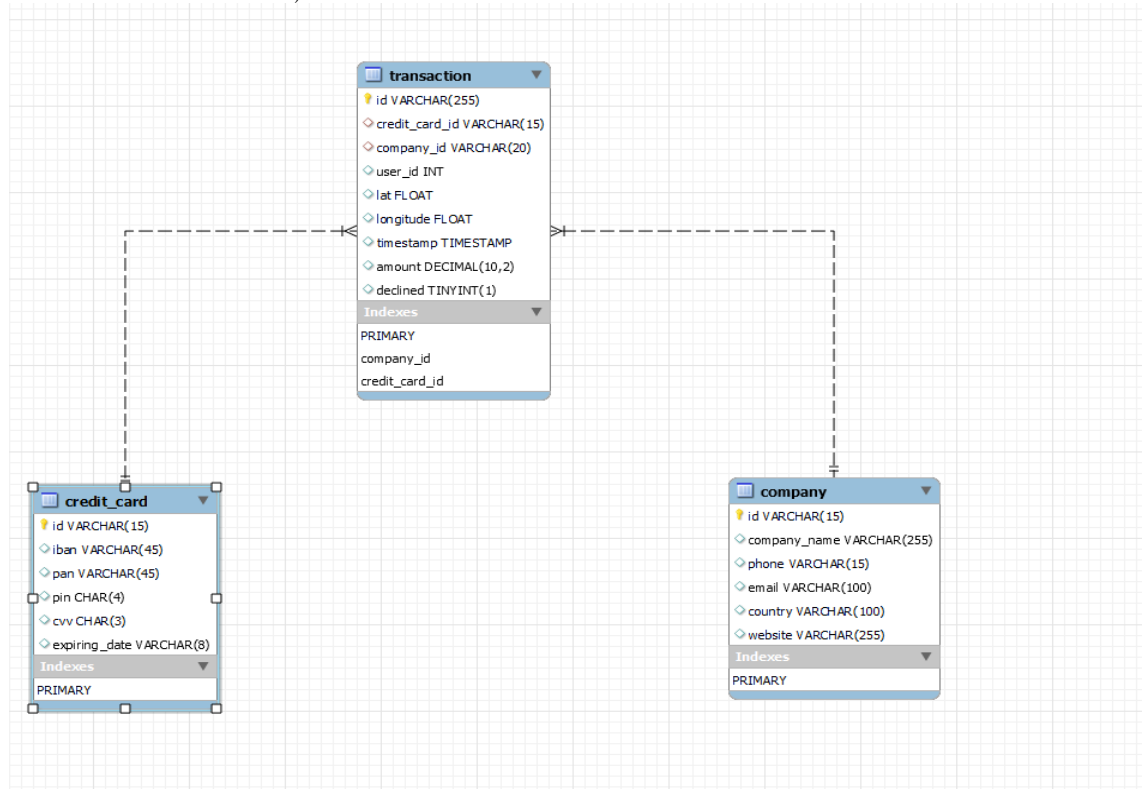
- Paso 3: Luego de ingresar los datos se genera la relación:

```

34 # Paso 3: Generar relación:
35 -- La relación será de "muchos a uno", donde muchas transacciones pueden estar asociadas a una sola tarjeta.
36 -- Mediante "fk_transaction_creditcard" se asegura que no se pueda insertar o actualizar un credit_card_id
37 -- en "transaction" que no exista en "credit_card". Evitando tener transacciones con tarjetas inexistentes.
38
39 ALTER TABLE transaction
40 ADD FOREIGN KEY (credit_card_id) REFERENCES credit_card(id);
41
42
Output
Action Output
Time Action Message Duration / Fetch
4976 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9552, 'XXX54939071105582035488151', ... 1 row(s) affected 0.000 sec
4977 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9553, 'XXX8710088228491001466600', ... 1 row(s) affected 0.000 sec
4978 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9554, 'XXX362231785100094001180034', ... 1 row(s) affected 0.000 sec
4979 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9555, 'XXX3514849382266549409840', ... 1 row(s) affected 0.000 sec
4980 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9556, 'XXX505597154102777285379842', ... 1 row(s) affected 0.000 sec
4981 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9557, 'XXX36704739582231461740596', ... 1 row(s) affected 0.000 sec
4982 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9558, 'XXX903176610998317940719617', ... 1 row(s) affected 0.016 sec
4983 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9559, 'XXX82088270276443278028612', ... 1 row(s) affected 0.000 sec
4984 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9560, 'XXX35261985101990204420526', ... 1 row(s) affected 0.000 sec
4985 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9561, 'XXX84287760526866727040752', ... 1 row(s) affected 0.000 sec
4986 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9562, 'XXX39604292196085282464578', ... 1 row(s) affected 0.000 sec
4987 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9563, 'XXX392846417866193835897237', ... 1 row(s) affected 0.000 sec
4988 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9564, 'XXX61179722562813200059896', ... 1 row(s) affected 0.000 sec
4989 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9565, 'XXX642860021926055745163758', ... 1 row(s) affected 0.000 sec
4990 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9566, 'XXX327046332926811278055630', ... 1 row(s) affected 0.000 sec
4991 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9567, 'XXX856381783872538603280064', ... 1 row(s) affected 0.000 sec
4992 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9568, 'XXX38536547822381431747659', ... 1 row(s) affected 0.000 sec
4993 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9569, 'XXX30527228964047897361563', ... 1 row(s) affected 0.000 sec
4994 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9570, 'XXX3334201025828181516573', ... 1 row(s) affected 0.000 sec
4995 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9571, 'XXX484915382437141996578468', ... 1 row(s) affected 0.000 sec
4996 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9572, 'XXX405448186269730388404508', ... 1 row(s) affected 0.000 sec
4997 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9573, 'XXX96338931053088091924906', ... 1 row(s) affected 0.000 sec
4998 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9574, 'XXX662761758361432685520775', ... 1 row(s) affected 0.016 sec
4999 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9575, 'XXX499881216073626571196478', ... 1 row(s) affected 0.000 sec
5000 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9576, 'XXX52971093058771264172007', ... 1 row(s) affected 0.000 sec
5001 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9577, 'XXX158914078594808633147006', ... 1 row(s) affected 0.000 sec
5002 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9578, 'XXX9915396456110567070256', ... 1 row(s) affected 0.000 sec
5003 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9579, 'XXX296393091587170202131236', ... 1 row(s) affected 0.000 sec
5004 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9580, 'XXX78125888951950806677358', ... 1 row(s) affected 0.000 sec
5005 13.39.16 INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (CcU-9581, 'XXX915670516405388124388147', ... 1 row(s) affected 0.016 sec
5006 13.41.00 SELECT * FROM credit_card LIMIT 0, 1000 1000 row(s) returned 0.000 sec / 0.000 sec
5007 13.42.34 ALTER TABLE transaction ADD FOREIGN KEY (credit_card_id) REFERENCES credit_card(id) 100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0 2.156 sec

```

La relación será de "muchos a uno", donde muchas transacciones pueden estar asociadas a una sola tarjeta.



II. Ejercicio 2: El departamento de Recursos Humanos ha identificado un error en el número de cuenta asociado a su tarjeta de crédito con ID CcU-2938. La información que debe mostrarse para este registro es: TR323456312213576817699999. Recuerda mostrar que el cambio se realizó.

➤ Paso 1: verificación del valor actual del dato:

```
SELECT id, iban
FROM credit_card
WHERE id="CcU-2938";
```

| id | iban |
|----------|----------------------------|
| CcU-2938 | TR301950312213576817638661 |

credit_card 4

| # | Time | Action | Message |
|---|----------|--------------------------------------------------------------------|-------------------|
| 1 | 11:10:13 | SELECT id, iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned |

➤ Modificar el valor de la celda:

```
UPDATE credit_card
SET iban="TR323456312213576817699999"
WHERE id="CcU-2938";
```

| # | Time | Action | Message | Duration / Fetch |
|---|----------|------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 1 | 11:10:13 | SELECT id, iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:11:14 | UPDATE credit_card SET iban="TR323456312213576817699999" WHERE id="CcU-2938" | 1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0 | 0.016 sec |

➤ Verificar el cambio:

```
SELECT id, iban
FROM credit_card
WHERE id="CcU-2938";
```

| id | iban |
|----------|----------------------------|
| CcU-2938 | TR323456312213576817699999 |

credit_card 6

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id, iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |

III. Ejercicio 3: En la tabla "transaction" ingresa una nueva transacción con la siguiente información:

Debido a que las tablas están conectadas, no debe existir una transacción sin el registro de tarjeta ni compañía a la que le pertenezca dicha transacción.

➤ Paso 1: Verificar que no exista la compañía:

```
SELECT *
FROM company
WHERE id="b-9999";
```

| id | company_name | phone | email | country | website |
|----|--------------|-------|-------|---------|---------|
|----|--------------|-------|-------|---------|---------|

company 9

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id, iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |

➤ Paso 2: Insertar compañía:

```
71
72 # Insertar compañía
73 INSERT INTO
74   company(id)
75   VALUES ("b-9999" );
76 # Insertar tarjeta:
```

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|-------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id,iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 11:20:51 | INSERT INTO company(id) VALUES ("b-9999") | 1 row(s) affected | 0.016 sec |

➤ Paso 3: Insertar tarjeta:

```
74   company(id)
75   VALUES ("b-9999" );
76 # Insertar tarjeta:
77 INSERT INTO credit_card (id)
78   VALUES ("CcU-9999");
79 # Insertar transaction
```

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|-------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id,iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 11:20:51 | INSERT INTO company(id) VALUES ("b-9999") | 1 row(s) affected | 0.016 sec |
| 4 | 11:22:05 | INSERT INTO credit_card (id) VALUES ("CcU-9999") | 1 row(s) affected | 0.000 sec |

➤ Paso 4: Insertar transacción

```
77 INSERT INTO credit_card (id)
78   VALUES ("CcU-9999");
79 # Insertar transacción
80 INSERT INTO transaction(id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined)
81   VALUES ("10881D1D-5823-A76C-55EF-C568E49A990D", "CcU-9999", "b-9999", 9999, 829.999, -117.999, now(), 111.11, 0 );
82 # verificar
```

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id,iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 11:20:51 | INSERT INTO company(id) VALUES ("b-9999") | 1 row(s) affected | 0.016 sec |
| 4 | 11:22:05 | INSERT INTO credit_card (id) VALUES ("CcU-9999") | 1 row(s) affected | 0.000 sec |
| 5 | 11:23:46 | INSERT INTO transaction(id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES ("10881D1D-5823-A76C-55EF-C568E49A990D", "CcU-9999", "b-9999", 9999, 829.999, -117.999, now(), 111.11, 0) | 1 row(s) affected | 0.000 sec |

➤ Paso 5: Verificación:

```
83
84 # verificar
85 SELECT *
86 FROM transactions.transaction
87 WHERE id="10881D1D-5823-A76C-55EF-C568E49A990D";
88
```

Result Grid

| id | credit_card_id | company_id | user_id | lat | longitude | timestamp | amount | declined |
|--------------------------------------|----------------|------------|---------|---------|-----------|---------------------|--------|----------|
| 10881D1D-5823-A76C-55EF-C568E49A990D | CcU-9999 | b-9999 | 9999 | 829.999 | -117.999 | 2025-09-30 11:23:46 | 111.11 | 0 |

transaction 10 x

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id,iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 11:20:51 | INSERT INTO company(id) VALUES ("b-9999") | 1 row(s) affected | 0.016 sec |
| 4 | 11:22:05 | INSERT INTO credit_card (id) VALUES ("CcU-9999") | 1 row(s) affected | 0.000 sec |
| 5 | 11:23:46 | INSERT INTO transaction(id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES ("10881D1D-5823-A76C-55EF-C568E49A990D", "CcU-9999", "b-9999", 9999, 829.999, -117.999, now(), 111.11, 0) | 1 row(s) affected | 0.000 sec |
| 6 | 11:25:58 | SELECT * FROM transactions.transaction WHERE id="10881D1D-5823-A76C-55EF-C568E49A990D" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |

IV. Ejercicio 4: Desde recursos humanos te solicitan eliminar la columna "pan" de la tabla credit_card. Recuerda mostrar el cambio realizado.

➤ La tabla se altera dejando se existir la columna “pan”:

```
89 # Ejercicio 4
90 -- Desde recursos humanos te solicitan eliminar la columna "pan" de la tabla credit_card. Recuerda mostrar el
91 -- cambio realizado.
92
93 ALTER TABLE credit_card
94 DROP COLUMN pan;
95
96 # verificar
97 DESCRIBE credit_card;
98
99 # Nivel 2
```

Result Grid

| id | credit_card_id | company_id | user_id | lat | longitude | timestamp | amount | declined |
|--------------------------------------|----------------|------------|---------|---------|-----------|---------------------|--------|----------|
| 10881D1D-5823-A76C-55EF-C568E49A990D | CcU-9999 | b-9999 | 9999 | 829.999 | -117.999 | 2025-09-30 11:23:46 | 111.11 | 0 |

transaction 11 x

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:14:16 | SELECT id,iban FROM credit_card WHERE id="CcU-2938" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:17:42 | SELECT * FROM company WHERE id="b-9999" LIMIT 0, 1000 | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 11:20:51 | INSERT INTO company(id) VALUES ("b-9999") | 1 row(s) affected | 0.016 sec |
| 4 | 11:22:05 | INSERT INTO credit_card (id) VALUES ("CcU-9999") | 1 row(s) affected | 0.000 sec |
| 5 | 11:23:46 | INSERT INTO transaction(id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES ("10881D1D-5823-A76C-55EF-C568E49A990D", "CcU-9999", "b-9999", 9999, 829.999, -117.999, now(), 111.11, 0) | 1 row(s) affected | 0.000 sec |
| 6 | 11:25:58 | SELECT * FROM transactions.transaction WHERE id="10881D1D-5823-A76C-55EF-C568E49A990D" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 7 | 11:32:03 | SELECT * FROM credit_card WHERE id="CcU-9999" LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |

➤ Verificación:

The screenshot shows a SQL query window with the command `DESCRIBE credit_card` and its output. The output is a table with the following structure:

| Field | Type | Null | Key | Default | Extra |
|---------------|-------------|------|-----|---------|-------|
| id | varchar(15) | NO | PRI | | |
| ban | varchar(45) | YES | | | |
| pin | char(4) | YES | | | |
| cvv | char(3) | YES | | | |
| expiring_date | varchar(8) | YES | | | |

The output window shows the action output for the command, indicating that 5 rows were returned.

Nivel 2

I. **Ejercicio 1:** Elimina de la tabla transacción el registro con ID 000447FE-B650-4DCF-85DE-C7ED0EE1CAAD de la base de datos.

➤ Paso 1: Eliminación:

The screenshot shows a SQL query window with the command `DELETE FROM transaction WHERE id='000447FE-B650-4DCF-85DE-C7ED0EE1CAAD'` and its output. The output is a table with the following structure:

| # | Time | Action | Message | Duration / Fetch |
|---|----------|-------------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:36:04 | DESCRIBE credit_card | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:40:56 | DELETE FROM transaction WHERE id='000447FE-B650-4DCF-85DE-C7ED0EE1CAAD' | 1 row(s) affected | 0.016 sec |

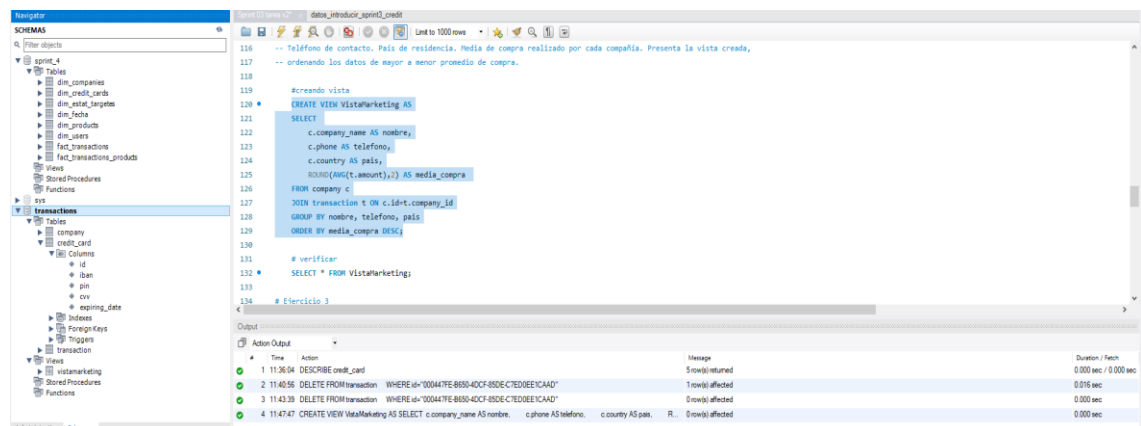
➤ Paso 2: Verificación:

The screenshot shows a SQL query window with the command `SELECT * FROM transaction WHERE id='000447FE-B650-4DCF-85DE-C7ED0EE1CAAD'` and its output. The output is a table with the following structure:

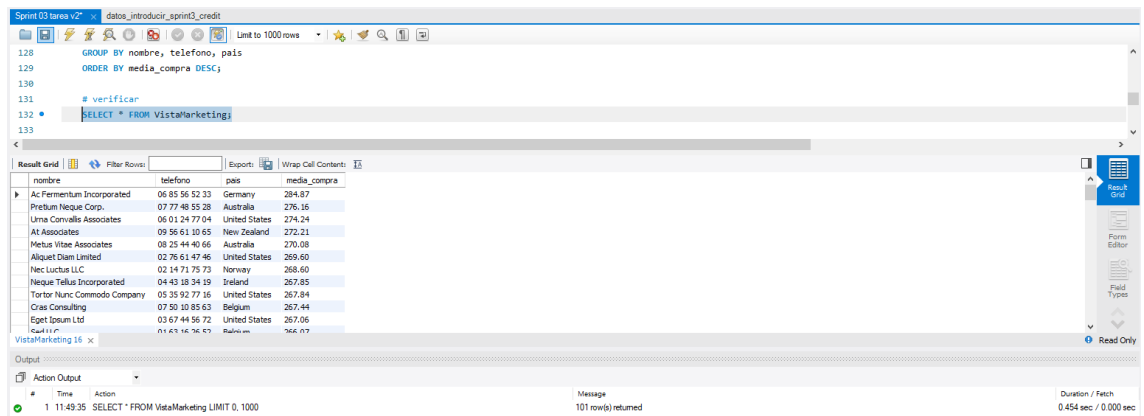
| # | Time | Action | Message | Duration / Fetch |
|---|----------|-------------------------------------------------------------------------|-------------------|-----------------------|
| 1 | 11:36:04 | DESCRIBE credit_card | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 2 | 11:40:56 | DELETE FROM transaction WHERE id='000447FE-B650-4DCF-85DE-C7ED0EE1CAAD' | 1 row(s) affected | 0.016 sec |
| 3 | 11:43:39 | DELETE FROM transaction WHERE id='000447FE-B650-4DCF-85DE-C7ED0EE1CAAD' | 0 row(s) affected | 0.000 sec |

II. **Ejercicio 2:** La sección de marketing desea tener acceso a información específica para realizar análisis y estrategias efectivas. Se ha solicitado crear una vista que proporcione detalles clave sobre las compañías y sus transacciones. Será necesaria que crees una vista llamada VistaMarketing que contenga la siguiente información: Nombre de la compañía. Teléfono de contacto. País de residencia. Media de compra realizado por cada compañía. Presenta la vista creada, ordenando los datos de mayor a menor promedio de compra.

- Paso 1: Creando vista: para crear la vista se debe tomar columnas de las tablas “company” y “transaction”.

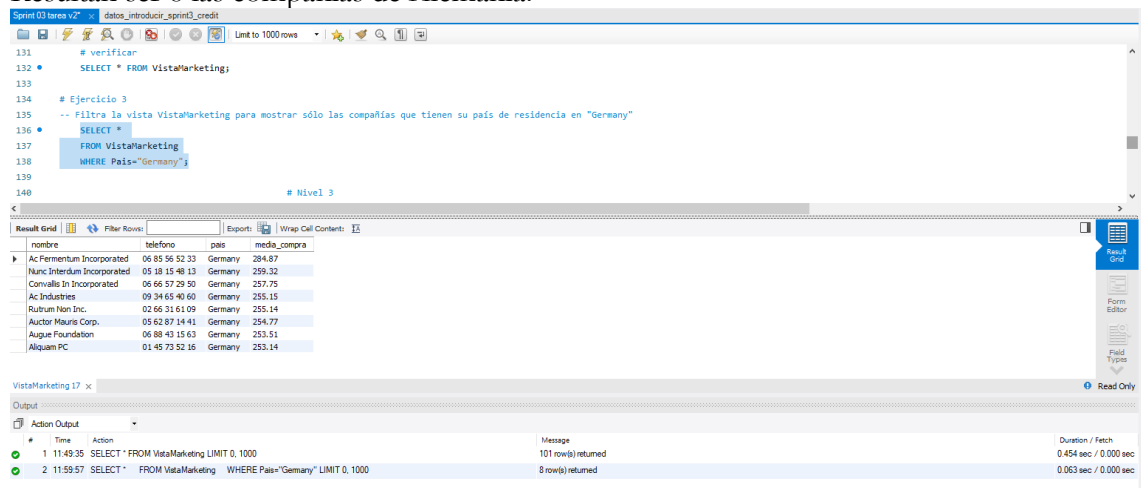


- Paso 2: Verificación:



III. Ejercicio 3: Filtra la vista VistaMarketing para mostrar sólo las compañías que tienen su país de residencia en "Germany".

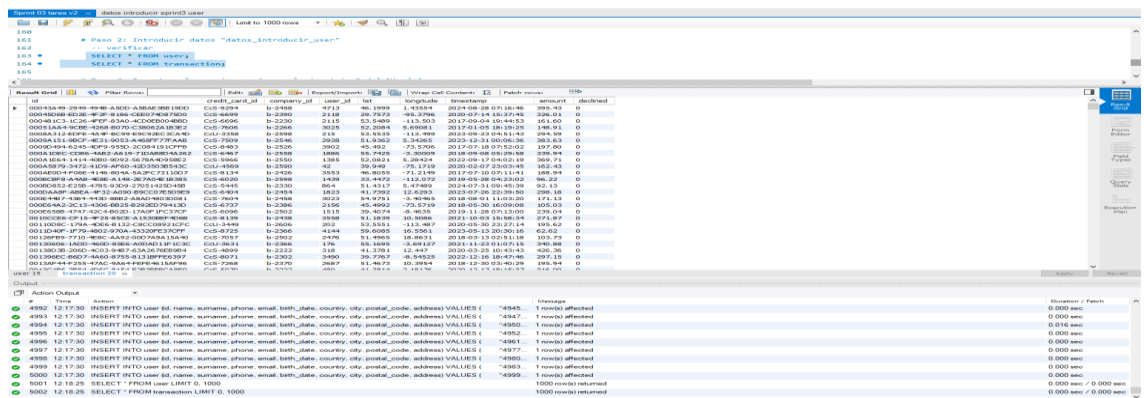
Resultan ser 8 las compañías de Alemania:



Nivel 3

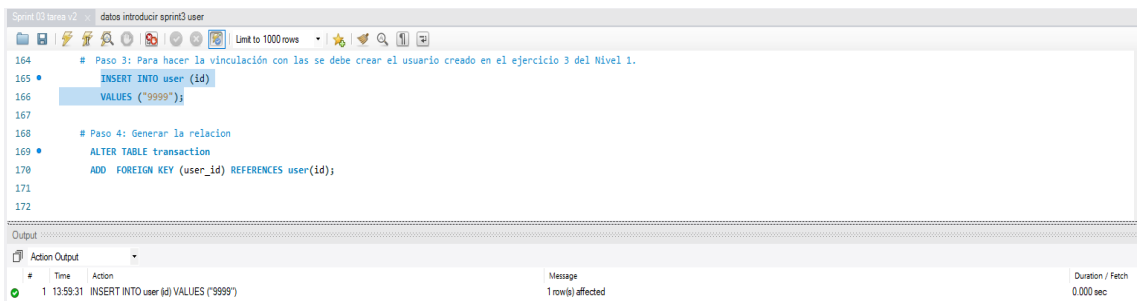
- I. **Ejercicio 1:** La próxima semana tendrás una nueva reunión con los gerentes de marketing. Un compañero de tu equipo realizó modificaciones en la base de datos, pero no recuerda cómo las realizó. Te pide que le ayudes a dejar los comandos ejecutados para obtener el siguiente diagrama:

Verificación:



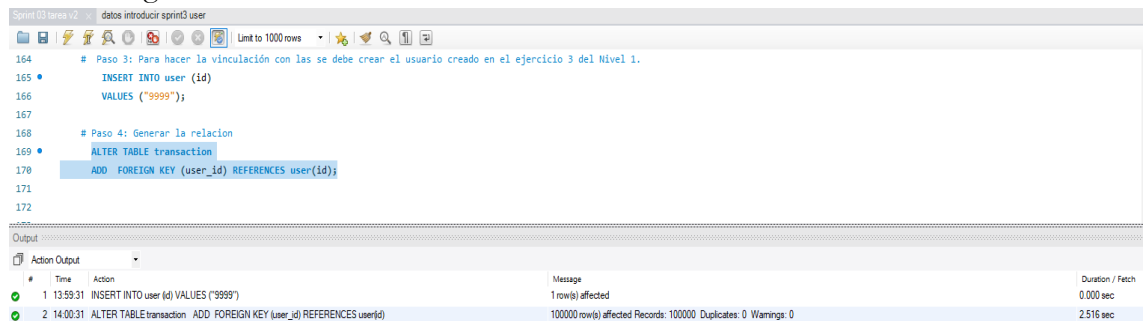
| id | credit_card_id | company_id | user_id | lat | longitude | transaction_id | amount | declined |
|--------------------------------------|----------------|------------|---------|---------|-----------|---------------------|--------|----------|
| 10013A4B-2040-404E-A05D-A0404E00404E | CUS-9278 | M-2040 | 4713 | 46.3899 | 1.13334 | 2013-10-28 07:10:46 | 203.15 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-9699 | M-2040 | 2118 | 36.7573 | 55.3786 | 2020-07-19 16:37:46 | 226.01 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-4699 | M-2230 | 2115 | 23.5490 | 13.5203 | 2017-04-04 19:14:23 | 161.60 | 0 |
| 0003A1A4-9040-404E-4040404040404040 | CUS-7606 | M-2040 | 3025 | 52.2064 | 5.69061 | 2017-01-05 18:19:25 | 146.93 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4388 | M-2040 | 2115 | 53.3338 | -13.1599 | 2013-05-25 18:11:15 | 286.39 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 2020 | 11.9362 | 5.34265 | 2013-12-31 00:04:30 | 263.63 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2230 | 465 | 46.3899 | -13.5706 | 2017-07-18 07:10:46 | 197.90 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1385 | 12.0821 | 5.28424 | 2013-09-17 01:02:18 | 366.71 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4699 | M-2040 | 42 | 39.9407 | -75.1715 | 2013-05-07 23:05:15 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-8134 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1439 | 21.4472 | -13.5706 | 2013-05-28 16:10:46 | 366.33 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 863 | 41.1417 | 5.7769 | 2013-07-21 10:10:46 | 78.13 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1823 | 41.7392 | 13.4283 | 2013-07-28 23:19:19 | 296.18 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3023 | 55.3551 | -13.5706 | 2013-05-13 00:10:46 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2156 | 46.4092 | -75.5719 | 2013-05-30 16:09:08 | 105.03 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1315 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 239.34 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 202 | 53.5551 | -13.5706 | 2013-05-30 23:17:14 | 196.62 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2476 | 11.4965 | 18.8621 | 2013-07-13 02:11:18 | 105.73 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 136 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2223 | 33 | 41.1417 | 2013-07-21 10:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3490 | 39.7767 | -8.54225 | 2013-12-16 18:14:26 | 297.15 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2067 | 41.1417 | 10.3919 | 2013-12-16 18:14:26 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |

- Paso 3: Para hacer la vinculación entre la tabla user y la tabla de transacciones se insertar (en user) el usuario creado en el ejercicio 3 del Nivel 1 cuando se insertó la transacción id="108B1D1D-5B23-A76C-55EF-C568E49A99DD":



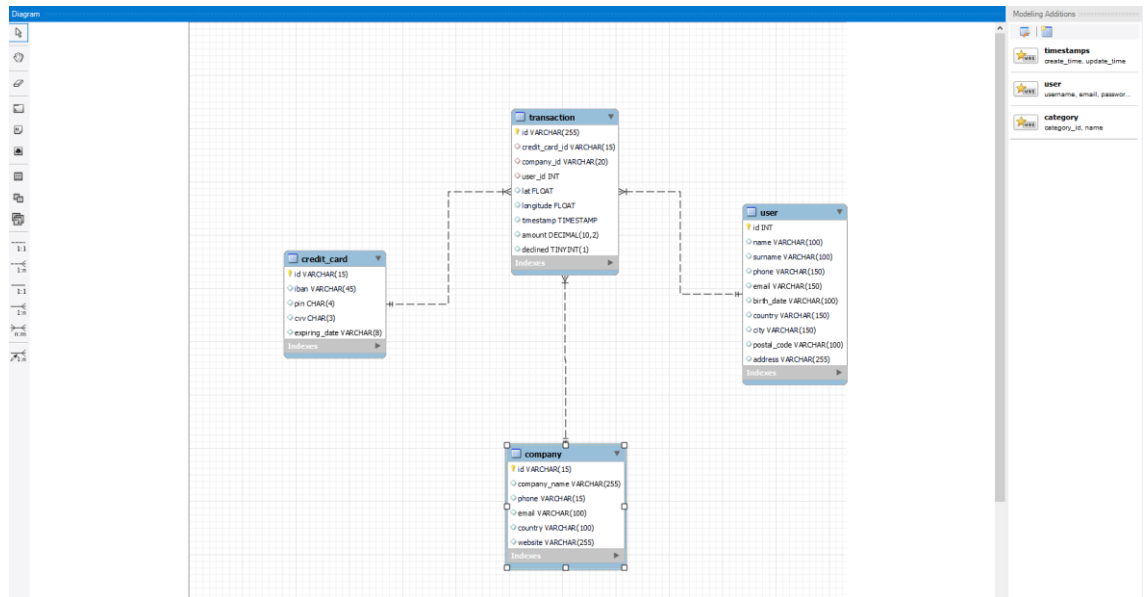
| id | credit_card_id | company_id | user_id | lat | longitude | transaction_id | amount | declined |
|--------------------------------------|----------------|------------|---------|---------|-----------|---------------------|--------|----------|
| 10013A4B-2040-404E-A05D-A0404E00404E | CUS-9278 | M-2040 | 4713 | 46.3899 | 1.13334 | 2013-10-28 07:10:46 | 203.15 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-9699 | M-2040 | 2118 | 36.7573 | 55.3786 | 2020-07-19 16:37:46 | 226.01 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-4699 | M-2230 | 2115 | 23.5490 | 13.5203 | 2017-04-04 19:14:23 | 161.60 | 0 |
| 0003A1A4-9040-404E-4040404040404040 | CUS-7606 | M-2040 | 3025 | 52.2064 | 5.69061 | 2017-01-05 18:19:25 | 146.93 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4388 | M-2040 | 2115 | 53.3338 | -13.1599 | 2013-05-25 18:11:15 | 286.39 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 2020 | 11.9362 | 5.34265 | 2013-12-31 00:04:30 | 263.63 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2230 | 465 | 46.3899 | -13.5706 | 2017-07-18 07:10:46 | 197.90 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1385 | 12.0821 | 5.28424 | 2013-09-17 01:02:18 | 366.71 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4699 | M-2040 | 42 | 39.9407 | -75.1715 | 2013-05-07 23:05:15 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-8134 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1439 | 21.4472 | -13.5706 | 2013-05-28 16:10:46 | 366.33 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 863 | 41.1417 | 5.7769 | 2013-07-21 10:10:46 | 78.13 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1823 | 41.7392 | 13.4283 | 2013-07-28 23:19:19 | 296.18 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3023 | 55.3551 | -13.5706 | 2013-05-13 00:10:46 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2156 | 46.4092 | -75.5719 | 2013-05-30 16:09:08 | 105.03 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1315 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 239.34 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 202 | 53.5551 | -13.5706 | 2013-05-30 23:17:14 | 196.62 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2476 | 11.4965 | 18.8621 | 2013-07-13 02:11:18 | 105.73 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 136 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2223 | 33 | 41.1417 | 2013-07-21 10:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3490 | 39.7767 | -8.54225 | 2013-12-16 18:14:26 | 297.15 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2067 | 41.1417 | 10.3919 | 2013-12-16 18:14:26 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |

- Paso 4: Se genera la relación:



| id | credit_card_id | company_id | user_id | lat | longitude | transaction_id | amount | declined |
|--------------------------------------|----------------|------------|---------|---------|-----------|---------------------|--------|----------|
| 10013A4B-2040-404E-A05D-A0404E00404E | CUS-9278 | M-2040 | 4713 | 46.3899 | 1.13334 | 2013-10-28 07:10:46 | 203.15 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-9699 | M-2040 | 2118 | 36.7573 | 55.3786 | 2020-07-19 16:37:46 | 226.01 | 0 |
| 00040404-4040-404E-404E-404040404040 | CUS-4699 | M-2230 | 2115 | 23.5490 | 13.5203 | 2017-04-04 19:14:23 | 161.60 | 0 |
| 0003A1A4-9040-404E-4040404040404040 | CUS-7606 | M-2040 | 3025 | 52.2064 | 5.69061 | 2017-01-05 18:19:25 | 146.93 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4388 | M-2040 | 2115 | 53.3338 | -13.1599 | 2013-05-25 18:11:15 | 286.39 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 2020 | 11.9362 | 5.34265 | 2013-12-31 00:04:30 | 263.63 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2230 | 465 | 46.3899 | -13.5706 | 2017-07-18 07:10:46 | 197.90 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-7500 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1385 | 12.0821 | 5.28424 | 2013-09-17 01:02:18 | 366.71 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-4699 | M-2040 | 42 | 39.9407 | -75.1715 | 2013-05-07 23:05:15 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-8134 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1439 | 21.4472 | -13.5706 | 2013-05-28 16:10:46 | 366.33 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 863 | 41.1417 | 5.7769 | 2013-07-21 10:10:46 | 78.13 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1823 | 41.7392 | 13.4283 | 2013-07-28 23:19:19 | 296.18 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3023 | 55.3551 | -13.5706 | 2013-05-13 00:10:46 | 162.43 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2156 | 46.4092 | -75.5719 | 2013-05-30 16:09:08 | 105.03 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1315 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 239.34 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 1886 | 34.7466 | -5.3007 | 2013-04-04 18:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 202 | 53.5551 | -13.5706 | 2013-05-30 23:17:14 | 196.62 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2476 | 11.4965 | 18.8621 | 2013-07-13 02:11:18 | 105.73 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 136 | 39.9407 | -6.3035 | 2013-11-28 07:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2223 | 33 | 41.1417 | 2013-07-21 10:10:46 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3490 | 39.7767 | -8.54225 | 2013-12-16 18:14:26 | 297.15 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 2067 | 41.1417 | 10.3919 | 2013-12-16 18:14:26 | 186.94 | 0 |
| 0000A1A1-4040-404E-4040404040404040 | CUS-9802 | M-2040 | 3353 | 46.3899 | -71.2149 | 2017-07-10 07:11:11 | 186.94 | 0 |

- Paso 5: se genera y verifica el diagrama deseado:



II. Ejercicio 2: La empresa también le pide crear una vista llamada "InformeTecnico" que contenga la siguiente información:

- ID de la transacción
- Nombre del usuario/a
- Apellido del usuario/a
- IBAN de la tarjeta de crédito usada.
- Nombre de la compañía de la transacción realizada.

Asegúrese de incluir información relevante de las tablas que conocerá y utilice alias para cambiar de nombre columnas según sea necesario.

- Paso 1: Se genera la vista a nivel de transacción, en orden descendente, con datos tomados de las tablas transacción, usuario, tarjeta y compañía:

```

-- Nombre de la compañía de la transacción realizada.
-- Asegúrese de incluir información relevante de las tablas que conocerá y utilice alias para cambiar de
-- nombre columnas según sea necesario.

#creando vista
CREATE VIEW InformeTecnico AS
SELECT
    t.id AS id_transaccion,
    u.name AS nombre_usuario,
    u.surname AS apellido_usuario,
    cr.iban AS iban_tarjeta,
    c.company_name AS nombre_compañía
FROM user u
JOIN transaction t ON u.id=t.user_id
JOIN credit_card cr ON t.credit_card_id=cr.id
JOIN company c ON t.company_id=c.id
ORDER BY id_transaccion DESC;

# verificar
SELECT * FROM InformeTecnico;
  
```

| # | Time | Action | Message | Duration / Patch |
|---|----------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------|
| 1 | 13:59:31 | INSERT INTO user (id) VALUES ('9999') | 1 row(s) affected | 0.000 sec |
| 2 | 14:00:31 | ALTER TABLE transaction ADD FOREIGN KEY (user_id) REFERENCES user(id) | 100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0 | 2.516 sec |
| 3 | 14:02:10 | CREATE VIEW InformeTecnico AS SELECT t.id AS id_transaccion, u.name AS nombre_usuario, u.surname AS ap... | 0 row(s) affected | 0.000 sec |

➤ Paso 2: Verificación de la tabla y su contenido:

Sprint 03 tareas v2 - datos introducir sprint3 user

```
SELECT
188
189     t.id AS id_transaccion,
190     u.name AS nombre_usuario,
191     u.surname AS apellido_usuario,
192     cr.iban AS iban_tarjeta,
193     c.company_name AS nombre_compania
194 FROM user u
195 JOIN transaction t ON u.id=t.user_id
196 JOIN credit_card cr ON t.credit_card_id=cr.id
197 JOIN company c ON t.company_id=c.id
198 ORDER BY id_transaccion DESC;
199
200 # verificar
201 * SELECT * FROM InformeTecnico;
202
```

Result Grid | Filter Rows | Exports | Wrap Cell Contents | Fetch rows

| id_transaccion | nombre_usuario | apellido_usuario | iban_tarjeta | nombre_compania |
|---------------------------------------|----------------|------------------|----------------------------|----------------------------------|
| FFFD31D6-9495-47CE-854A-7DB8E1CC274B | Bmrglj | Tprvnmrc | XX794814451211289182490922 | Turpis Company |
| FFFC79D-ECF0-4985-A2D0-82A7879998FC | Dfled | Vlsgjd | XX636251701647892036676034 | Amet Nula Donec Corporation |
| FFFC6B8D-21C7-4ADE-98F2-75338F4D9126 | Securp | Faui-fdy | XX162877143304223631437567 | Nunc Interdum Incorporated |
| FFFB27D0-F53A-4D5D-9666-E5307C53C0B4 | Gqtpa | Ukrzjh | XX395114267082019952567052 | Viverra Donec Foundation |
| FFFF3CE-234E-408C-ABEF-F9CAD577224A | Yahmq | Zpsgleed | XX8845462156537570367941 | Convalis In Incorporated |
| FFFF9E178-6CD2-4DF9-9980-49AE068809B1 | Jevepx | Xxcvzwmm | XX321405515711654384711481 | Mus Aenean Eget Foundation |
| FFFF8C7C9-17B5-4B1F-4FD9-F8023AAA4HB6 | Fahgd | Lvhfyxi | XX278446242932680979729426 | Cras Vehicula Aliquet Industries |
| FFFF704D2-18C6-40D0-822C-4B96A4AC9F36 | Njpraa | Egzequl | XX400090272372550082027209 | Placemat LLP |
| FFFF60D4-4244-47F6-921D-43D1DCB990B0 | Lopxaj | Itgyfay | XX63376659736627454015125 | Pede Cum Ltd |
| FFFF5C60-4441-436D-8D27-E6C538618622 | Gmnbnu | Oxdrhkl | XX237820256172646394016483 | At Associates |
| FFFF4F54-8439-41F0-8D02-F7332DC1ACAD | Gachyy | Mpfhltb | XX802723943240147612158718 | Erin Conditimentum Ltd |
| FFFF42F7D-7AD0-46E2-4F72-5996982F6A48 | Ddkgm | Yabonyu | XX026442201555195974199541 | At Pede Corp. |
| FFFF4262D-1968-4A1F-89D7-27843CB097A5 | Sjvnp | Egnczfl | XX365457232638959102336873 | Amet Nula Donec Corporation |
| FFFF290B-79D2-497C-8DCE-2EC63FE3E3AD | Vicfyys | Dkthgtd | XX458989048222230717519935 | Integer Mollis Corp. |
| FFFF20F84-9D14-4AC3-8938-E31E7786C49A | Afjnt | Yshvmtqk | XX148483552743443735712134 | Ac Fermentum Incorporated |
| FFFF202FF-6DFF-4B48-8337-EE476513A96C | Gcabnp | Rabbokg | XX401515219969396565954528 | Pretium Neque Corp. |
| FFFF1165-302A-46FE-63D1-11A8FEBED65 | Stmudj | Fofnhhyr | XX094039430672237986516070 | Augue Foundation |

InformeTecnico 45 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------|
| 1 | 13:59:31 | INSERT INTO user (id) VALUES ('9999') | 1 row(s) affected | 0.000 sec |
| 2 | 14:00:31 | ALTER TABLE transaction ADD FOREIGN KEY (user_id) REFERENCES user(id) | 100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0 | 2.516 sec |
| 3 | 14:02:18 | CREATE VIEW InformeTecnico AS SELECT t.id AS id_transaccion, u.name AS nombre_usuario, u.surname AS a... | 0 row(s) affected | 0.000 sec |
| 4 | 14:02:42 | SELECT * FROM InformeTecnico LIMIT 0, 1000 | 1000 row(s) returned | 0.015 sec / 0.000 sec |