SPRINT 3v2

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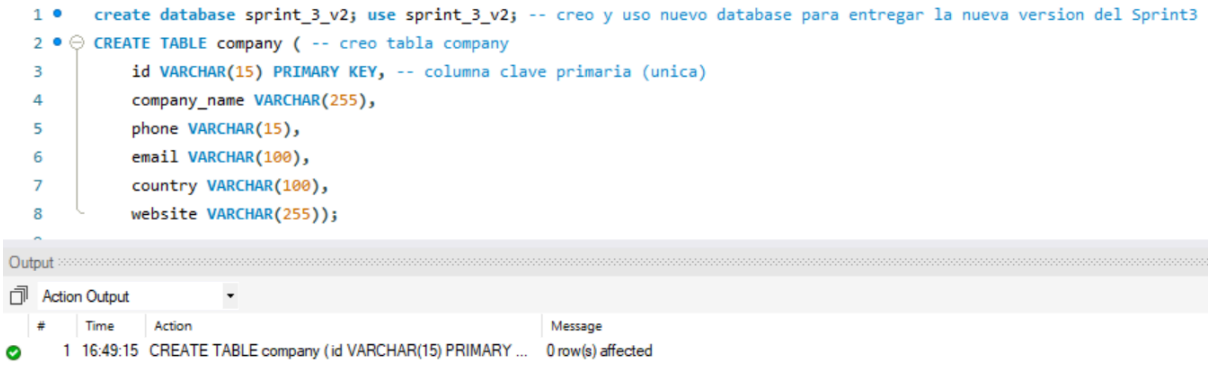
★ NIVELL 1

➔ exercici 1

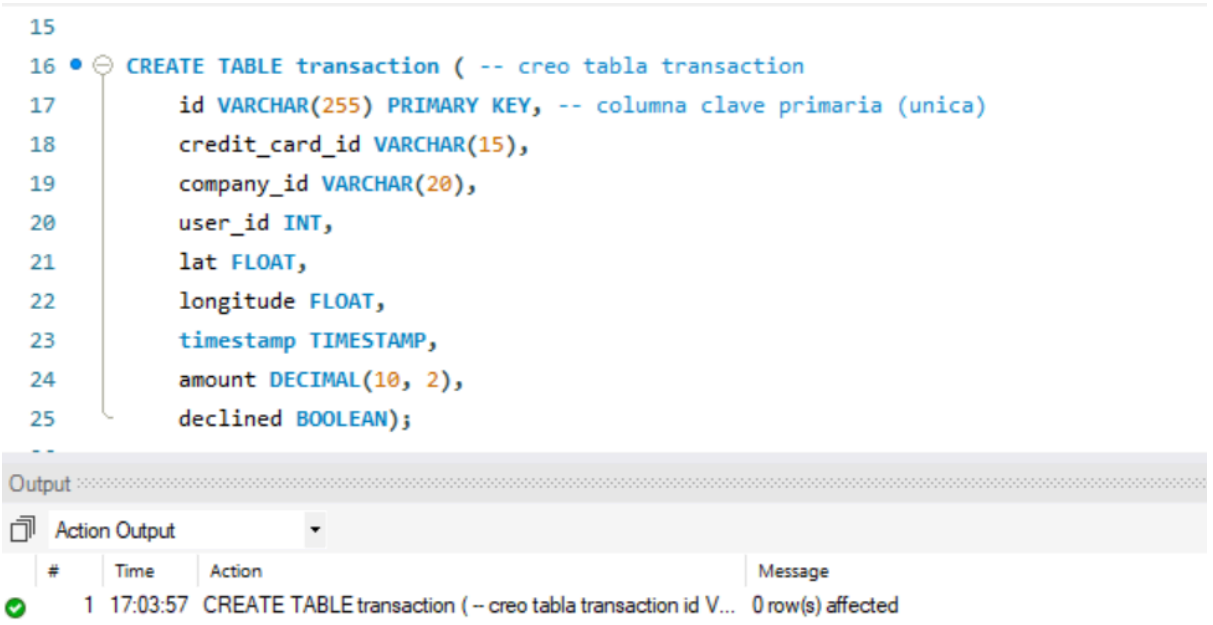
- **La teva tasca és dissenyar i crear una taula anomenada "credit_card" que emmagatzemi detalls crucials sobre les targetes de crèdit. La nova taula ha de ser capaç d'identificar de manera única cada targeta i establir una relació adequada amb les altres dues taules ("transaction" i "company"). Després de crear la taula serà necessari que ingressis la informació del document denominat "dades_introduir_credit". Recorda mostrar el diagrama i realitzar una breu descripció d'aquest.**

- **creo las tablas desde cero sin añadir ni INDEX ni FOREIGN KEY para una mayor limpieza del codigo**



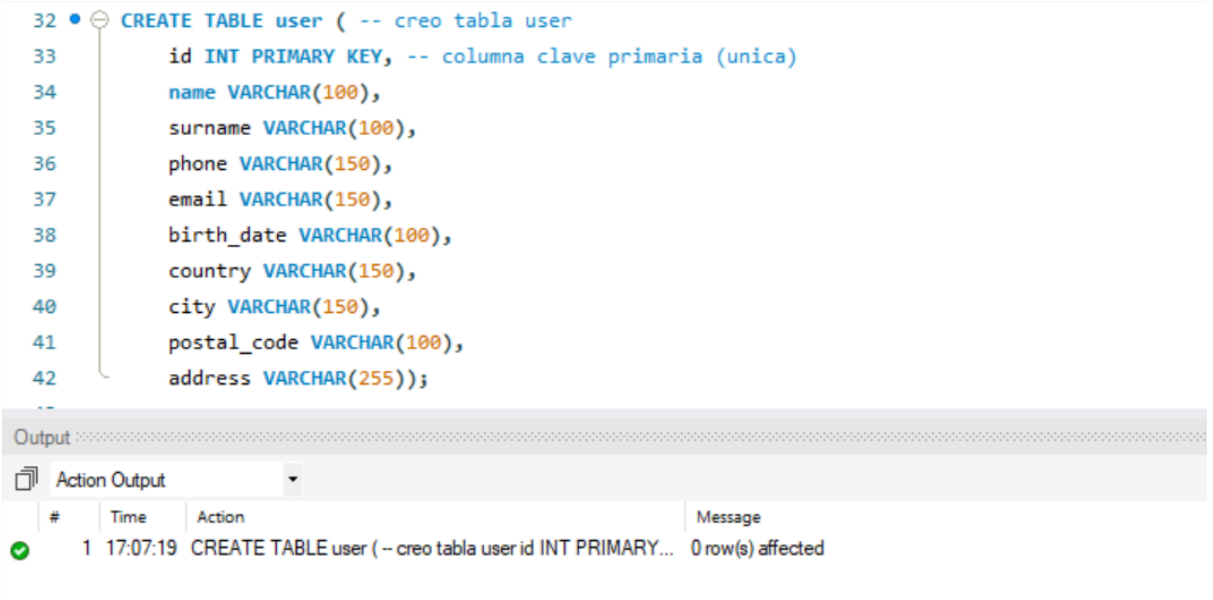
➢ código:

```
create database sprint_3_v2; use sprint_3_v2;
CREATE TABLE company (
    id VARCHAR(15) PRIMARY KEY,
    company_name VARCHAR(255),
    phone VARCHAR(15),
    email VARCHAR(100),
    country VARCHAR(100),
    website VARCHAR(255));
```



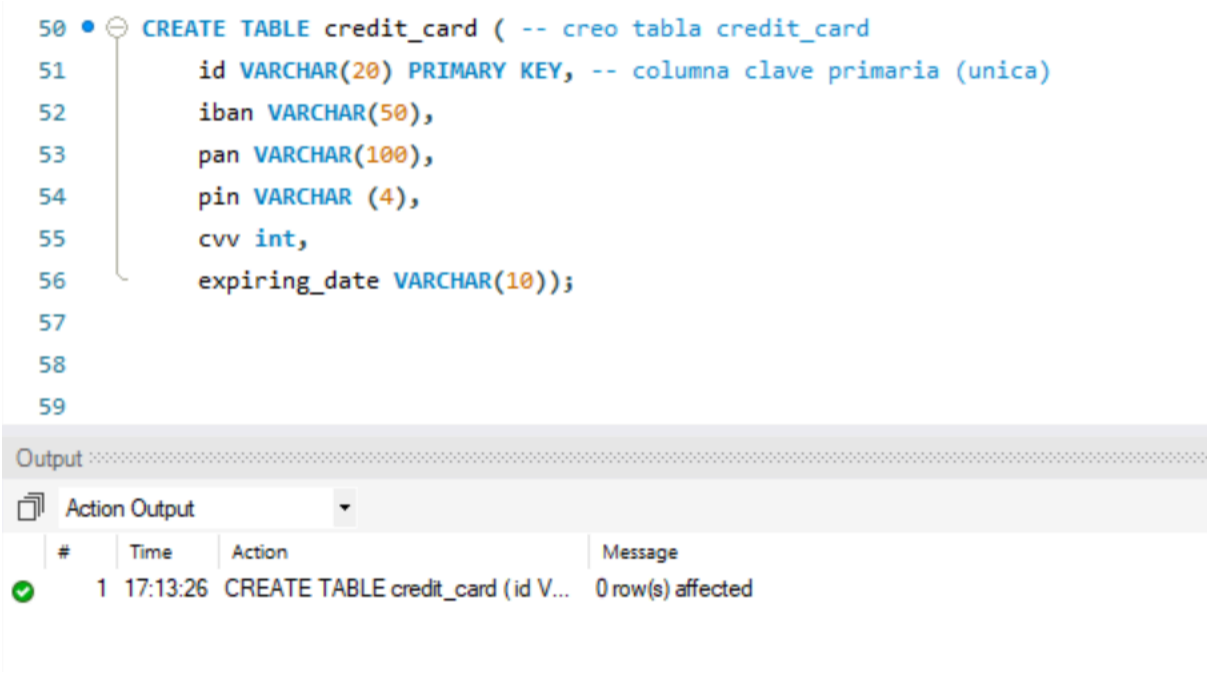
➢ código:

```
CREATE TABLE transaction (
    id VARCHAR(255) PRIMARY KEY,
    credit_card_id VARCHAR(15),
    company_id VARCHAR(20),
    user_id INT,
    lat FLOAT,
    longitude FLOAT,
    timestamp TIMESTAMP,
    amount DECIMAL(10, 2),
    declined BOOLEAN);
```



➢ código:

```
CREATE TABLE user (
   id INT PRIMARY KEY,
   name VARCHAR(100),
   surname VARCHAR(100),
   phone VARCHAR(150),
   email VARCHAR(150),
   birth_date VARCHAR(100),
   country VARCHAR(150),
   city VARCHAR(150),
   postal_code VARCHAR(100),
   address VARCHAR(255));
```



➢ código:

```
CREATE TABLE credit_card (
   id VARCHAR(20) PRIMARY KEY,
   iban VARCHAR(50),
   pan VARCHAR(100),
   pin VARCHAR (4),
   cvv int,
   expiring_date VARCHAR(10));
```

- **creo INDEX y FOREIGN KEY**

```
59  CREATE INDEX idx_transaction_user_id ON transaction(user_id);
60  CREATE INDEX idx_transaction_company_id ON transaction(company_id);
61  CREATE INDEX idx_transaction_credit_card_id ON transaction(credit_card_id);
62  CREATE INDEX idx_transaction_timestamp ON transaction(timestamp);
63  CREATE INDEX idx_transaction_declined ON transaction(declined);
64
65  ALTER TABLE transaction
66      ADD CONSTRAINT fk_transaction_company FOREIGN KEY (company_id) REFERENCES company(id),
67
68      ADD CONSTRAINT fk_transaction_user FOREIGN KEY (user_id) REFERENCES user(id),
69
70      ADD CONSTRAINT fk_transaction_credit_card FOREIGN KEY (credit_card_id) REFERENCES credit_card(id);
```

Output

Action Output

#	Time	Action	Message
1	17:31:49	CREATE INDEX idx_transaction_user_id ON transactio...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
2	17:31:49	CREATE INDEX idx_transaction_company_id ON trans...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
3	17:31:49	CREATE INDEX idx_transaction_credit_card_id ON tra...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
4	17:31:49	CREATE INDEX idx_transaction_timestamp ON transac...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
5	17:31:49	CREATE INDEX idx_transaction_declined ON transacti...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
6	17:31:49	ALTER TABLE transaction ADD CONSTRAINT fk_tran...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

➢ código:

```
CREATE INDEX idx_transaction_user_id ON transaction(user_id);
CREATE INDEX idx_transaction_company_id ON transaction(company_id);
CREATE INDEX idx_transaction_credit_card_id ON transaction(credit_card_id);
CREATE INDEX idx_transaction_timestamp ON transaction(timestamp);
CREATE INDEX idx_transaction_declined ON transaction(declined);

ALTER TABLE transaction
ADD CONSTRAINT fk_transaction_company FOREIGN KEY (company_id) REFERENCES
company(id),

ADD CONSTRAINT fk_transaction_user FOREIGN KEY (user_id) REFERENCES user(id),

ADD CONSTRAINT fk_transaction_credit_card FOREIGN KEY (credit_card_id)
REFERENCES credit_card(id);
```

❖ inserto los valores de la tabla user

```
1   -- Insertamos datos de user
2   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "1", "Zeus", "Gamble", "1-282-581-0551", "interdum.er
3   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "2", "Garrett", "Mcconnell", "(718) 257-2412", "integ
4   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "3", "Ciaran", "Harrison", "(522) 598-1365", "interdu
5   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "4", "Howard", "Stafford", "1-411-740-3269", "ornare.
6   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "5", "Hayfa", "Pierce", "1-554-541-2077", "et.malesua
7   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "6", "Joel", "Tyson", "(718) 288-8020", "gravida.nunc
8   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "7", "Rafael", "Jimenez", "(817) 689-0478", "eget@out
9   INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "8", "Nissim", "Franks", "(692) 157-3469", "egestas.a
10  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "9", "Mannix", "Mcclain", "(590) 883-2184", "aliquam.
11  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "10", "Robert", "Mccarthy", "(324) 746-6771", "fermer
12  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "11", "Joan", "Baird", "(981) 429-8106", "et@outlook.
13  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (      "12", "Benedict", "Wheeler", "1-515-824-2855", "tinci
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
269	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec
270	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.016 sec
271	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec
272	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec
273	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec
274	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec
275	17:36:10	INSERT INTO user (id, name, surname, phone, email, birth_date, country...	1 row(s) affected	0.000 sec

❖ inserto los valores de la tabla company

```
1   -- Insertamos datos de company
2   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2222', 'Ac Fermentum Incorporated', '06 85 56 52 33', 'donec.porttitor.tellus@
3   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2226', 'Magna A Neque Industries', '04 14 44 64 62', 'risus.donec.nibh@icloud.
4   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2230', 'Fusce Corp.', '08 14 97 58 85', 'risus@protonmail.edu', 'United States
5   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2234', 'Convallis In Incorporated', '06 66 57 29 50', 'mauris.ut@aol.couk', 'G
6   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2238', 'Ante Iaculis Nec Foundation', '08 23 04 99 53', 'sed.dictum.proin@outl
7   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2242', 'Donec Ltd', '01 25 51 37 37', 'at.iaculis@hotmail.couk', 'Norway', 'ht
8   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2246', 'Sed Nunc Ltd', '02 62 64 73 48', 'nibh@yahoo.org', 'United Kingdom', '
9   INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2250', 'Amet Nulla Donec Corporation', '07 15 25 14 74', 'mattis.integer.eu@pr
10  INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2254', 'Nascetur Ridiculus Mus Inc.', '06 26 87 61 84', 'suspendisse.dui@iclou
11  INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2258', 'Vestibulum Lorem PC', '02 02 87 33 40', 'aenean.massa.integer@aol.net'
12  INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2262', 'Gravida Sagittis LLP', '03 81 28 33 97', 'turpis.vitae@google.ca', 'Sw
13  INSERT INTO company (id, company_name, phone, email, country, website) VALUES (      'b-2266', 'Mus Aenean Eget Foundation', '06 25 15 52 43', 'mi.duis@hotmail.net'
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
95	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec
96	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec
97	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec
98	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec
99	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec
100	17:39:07	INSERT INTO company (id, company_name, phone, email, country, web...	1 row(s) affected	0.000 sec

❖ **inserto los valores de la tabla credit_card**

```
-- Insertamos datos de credit_cardD
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2938', 'TR301950312213576817638661', '5424465566813633', '3257', '984', '10/30/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2945', 'DO2685476374853747521656868 9', '5142423821948828', '9080', '887', '08/24/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2952', 'BG45IVQL52710525608255', '4556 453 55 5287', '4598', '438', '06/29/21');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2959', 'CR7242477244335841535', '372461377349375', '3583', '667', '02/24/23');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2966', 'BG72LKTQ15627628377363', '448566 886747 7265', '4900', '130', '10/29/24');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2973', 'PT8780622813509242945 6346', '544 58654 54343 384', '8760', '887', '01/30/25');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2980', 'DE39241881883086277136', '402400 7145845969', '5075', '596', '07/24/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2987', 'GE896814348377487818 13', '3763 747687 76666', '2298', '797', '10/31/23');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-2994', 'BH6271442836806765294', '344283273252593', '7545', '595', '02/28/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-3001', 'CY490874266547745812668321 10', '511722 924833 2244', '9562', '867', '09/16/
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-3008', 'LU507216693616119230', '4485744464433884', '1856', '740', '04/05/25');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (  'CcU-3015', 'PS1193082162957159683424568 21', '3784 662233 17389', '3246', '822', '01/31/
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
270	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.000 sec
271	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.000 sec
272	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.016 sec
273	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.000 sec
274	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.000 sec
275	17:40:40	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUE...	1 row(s) affected	0.000 sec

❖ **inserto los valores de la tabla transaction**

```
-- Insertamos datos de transaction
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '108B1D1D-5B23-A76C-55EF-C568E49A05DD',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '7DC26247-20EC-53FE-E555-B6C2E55CA5D5',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '72997E96-DC2C-A4D7-7C24-66C302F8AE5A',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  'AB069F53-965E-A2A8-CE06-CA8C4FD92501',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '2F3B6AB6-147D-EB0B-FE8D-9A4E2EA9DBD5',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '5B0EEF86-B8A1-EFAA-5EE1-27E7DC8F54A4',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '2B928E1C-EC14-A760-0A75-871477649D6A',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '063FBA79-99EC-66FB-29F7-25726D1764A5',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  'D33B21EB-A61E-BD8C-5DE7-1DA4AC210AE6',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  '841AC1A0-9CA6-2AF7-EBC2-BC9C77C1EBB8',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  'D3470F3E-9683-799A-40F1-E42C143BAC5A',
INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined) VALUES (  'D6E37D7A-A07E-01AA-DE27-476C89D26A8E',
```

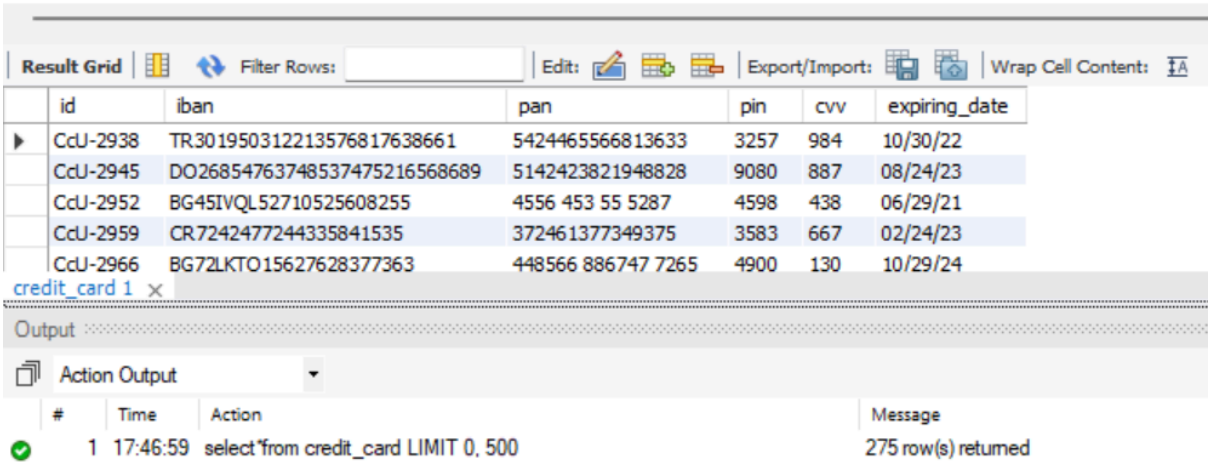
Output

Action Output

#	Time	Action	Message	Duration / Fetch
582	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.000 sec
583	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.000 sec
584	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.000 sec
585	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.016 sec
586	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.000 sec
587	17:41:45	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, l...	1 row(s) affected	0.000 sec

❖ **selecciono los valores de credit_card con la fecha de tipo texto (VARCHAR)**

```
1 •  select*from credit_card;
```



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	iban	pan	pin	cvv	expiring_date
CcU-2938	TR3019503122135768176386 61	5424465566813633	3257	984	10/30/22
CcU-2945	DO26854763748537475216568689	5142423821948828	9080	887	08/24/23
CcU-2952	BG45IVQL52710525608255	4556 453 55 5287	4598	438	06/29/21
CcU-2959	CR7242477244335841535	372461377349375	3583	667	02/24/23
CcU-2966	BG72LKTO15627628377363	448566 886747 7265	4900	130	10/29/24

credit_card 1

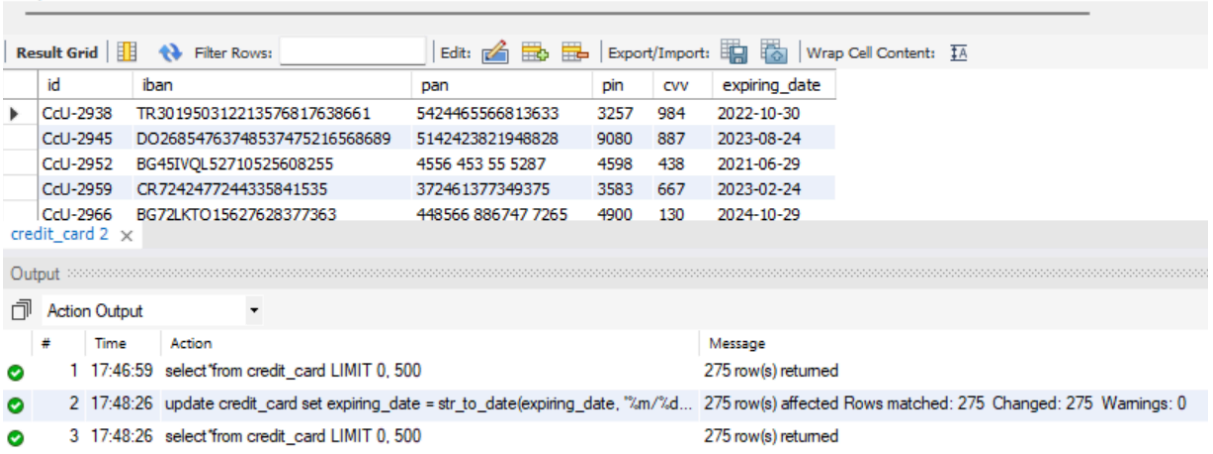
Output

Action Output

#	Time	Action	Message
1	17:46:59	select*from credit_card LIMIT 0, 500	275 row(s) returned

❖ **modifico el tipo de valor contenido en la columna 'Expiring_date'**

```
1 •  select*from credit_card;
2 •  update credit_card
3    set expiring_date = str_to_date(expiring_date, '%m/%d/%Y');
4 •  select*from credit_card;
```



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	iban	pan	pin	cvv	expiring_date
CcU-2938	TR3019503122135768176386 61	5424465566813633	3257	984	2022-10-30
CcU-2945	DO26854763748537475216568689	5142423821948828	9080	887	2023-08-24
CcU-2952	BG45IVQL52710525608255	4556 453 55 5287	4598	438	2021-06-29
CcU-2959	CR7242477244335841535	372461377349375	3583	667	2023-02-24
CcU-2966	BG72LKTO15627628377363	448566 886747 7265	4900	130	2024-10-29

credit_card 2

Output

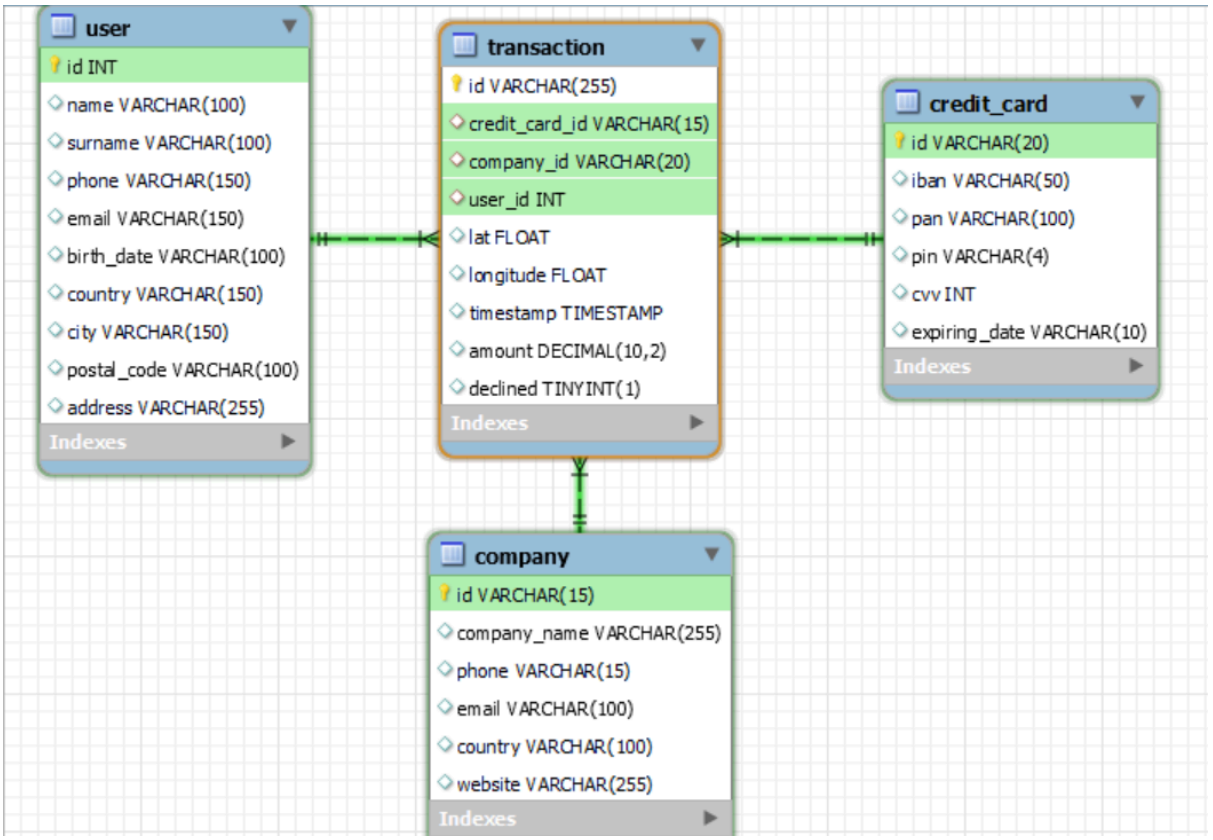
Action Output

#	Time	Action	Message
1	17:46:59	select*from credit_card LIMIT 0, 500	275 row(s) returned
2	17:48:26	update credit_card set expiring_date = str_to_date(expiring_date, '%m/%d...	275 row(s) affected Rows matched: 275 Changed: 275 Warnings: 0
3	17:48:26	select*from credit_card LIMIT 0, 500	275 row(s) returned

➢ código:
update credit_card
set expiring_date = str_to_date(expiring_date, '%m/%d/%Y');

➢ explicación:
Modifico la columna 'Expiring_date' para que el sistema la reconozca como fecha y poder trabajar con ella.

❖ **muestro el modelo creado**



➢ El modelo del diagrama es un modelo estrella. El modelo estrella es una técnica de modelado de datos que se utiliza para diseñar y optimizar almacenes de datos y data marts. Su nombre se debe a la forma que tiene el esquema lógico, que consta de una tabla central llamada tabla de hechos y varias tablas periféricas llamadas tablas de dimensiones.
La tabla de hechos es 'Transaction', las otras son tablas de dimensiones.

Las relaciones entre las tablas son:

transaction.company_id - N a 1 - company.id
transaction.credit_card_id - N a 1- credit_card.id
transaction.user_id - N a 1 - user.id
Una relacion 'N a 1' es aquella que vincula un número indeterminado de registros de la primera tabla con un único registro de la segunda, y vincula un registro de la segunda tabla con un número indeterminado de registros de la primera.

➔ exercici 2

- **El departament de Recursos Humans ha identificat un error en el número de compte de l'usuari amb ID CcU-2938. La informació que ha de mostrar-se per a aquest registre és: R323456312213576817699999. Recorda mostrar que el canvi es va realitzar.**

❖ **selecciono el registro que hay que modificar**

```
20
21 •  select*from credit_card where id = 'CcU-2938';
22
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	iban	pan	pin	cvv	expiring_date
CcU-2938	TR301950312213576817638661	5424465566813633	3257	984	2022-10-30
NULL	NULL	NULL	NULL	NULL	NULL

credit_card 3

Output

Action Output

#	Time	Action	Message
1	12:57:04	select*from credit_card where id = 'CcU-2938' LIMIT 0, 500	1 row(s) returned

❖ **modifico el registro y lo muestro a video**

```
26
27 •  update credit_card set iban = 'R323456312213576817699999'
28    where id = 'CcU-2938';
29 •  select*from credit_card where id = 'CcU-2938';
30
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	iban	pan	pin	cvv	expiring_date
CcU-2938	R323456312213576817699999	5424465566813633	3257	984	2022-10-30
NULL	NULL	NULL	NULL	NULL	NULL

credit_card 4

Output

Action Output

#	Time	Action	Message
1	12:59:00	update credit_card set iban = 'R323456312213576817699999' where id = 'CcU-2938'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
2	12:59:00	select*from credit_card where id = 'CcU-2938' LIMIT 0, 500	1 row(s) returned

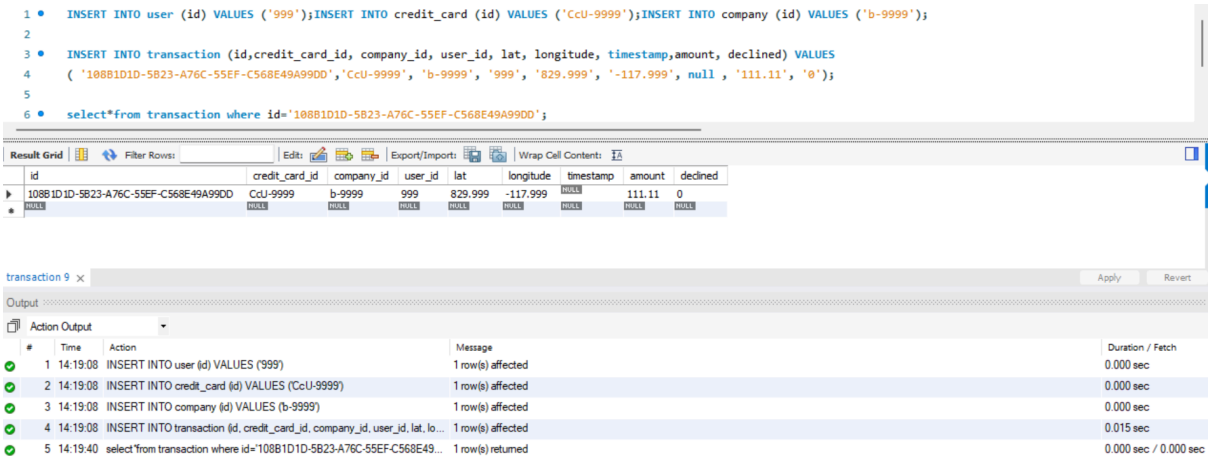
➢ código:
update credit_card set iban = 'R323456312213576817699999'
where id = 'CcU-2938';

➢ explicación:
Utilizo la vista coCon ‘Update’ puedo modificar uno o más registros de una tabla seleccionada con el valor definido con ‘Set’. Con ‘Where’ limito el cambio a los registros que cumplen la condición.

➔ exercici 3

- **En la taula "transaction" ingressa un nou usuari amb la següent informació:**

  Id 108B1D1D-5B23-A76C-55EF-C568E49A99DD
  credit_card_id CcU-9999
  company_id b-9999
  user_id9999
  lat 829.999
  longitude -117.999
  amount 111.11
  declined 0



➢ codigo:
INSERT INTO user (id) VALUES ('999');INSERT INTO credit_card (id) VALUES ('CcU-9999');INSERT INTO company (id) VALUES ('b-9999');

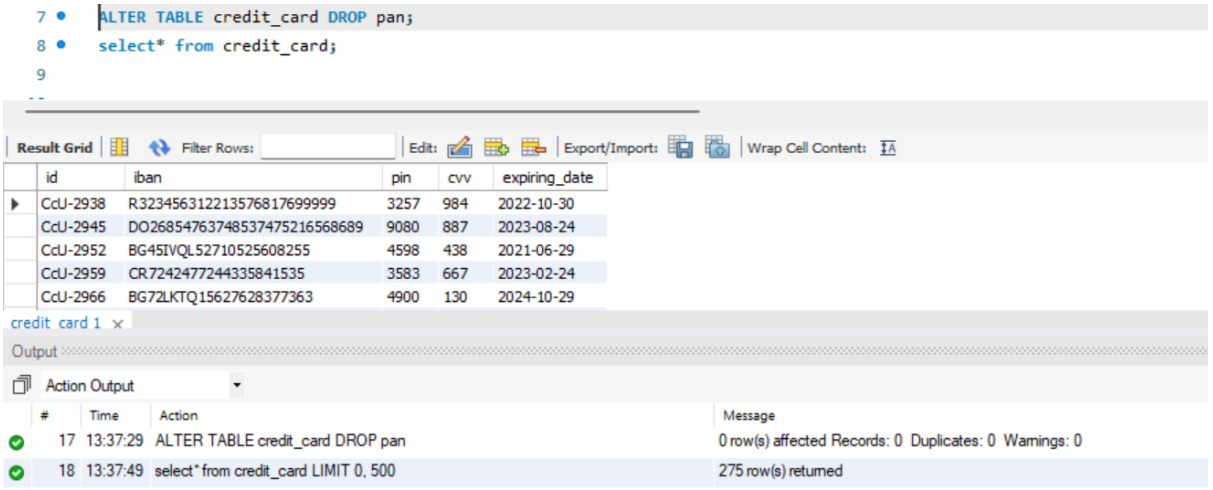
INSERT INTO transaction (id,credit_card_id, company_id, user_id, lat, longitude, timestamp,amount, declined) VALUES
('108B1D1D-5B23-A76C-55EF-C568E49A99DD','CcU-9999', 'b-9999', '999', '829.999', '-117.999', null , '111.11', '0');

select*from transaction where id='108B1D1D-5B23-A76C-55EF-C568E49A99DD';

➢ explicación:
Para poder ingresar el registro tengo que añadir primero los registros en las tablas user, credit_card y company.
Eso porque las foreign key que tiene la tabla transaction no admiten valores que no esten relacionados con las otras tablas.
Podria superar el error quitando el control con ‘set foreign key=0’ pero me quedaria con una relacion no valida entre tablas que darian errores.
Por eso prefiero añadir manualmente los registros en las otras tablas.

➔ exercici 4

- **Des de recursos humans et sol·liciten eliminar la columna "pan" de la taula credit_*card. Recorda mostrar el canvi realitzat.**



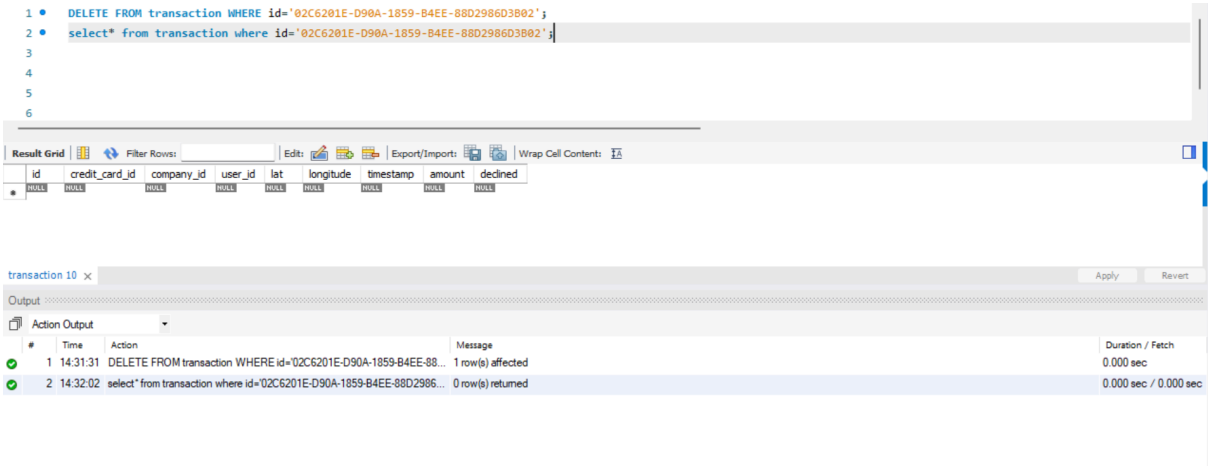
➢ codigo:
ALTER TABLE credit_card DROP pan;

➢ explicación:
Con ‘Alter Table’ selecciono la tabla que quiero modificar y con ‘DROP’ elimino la columna que especifico despues.

★ NIVELL 2

➔ exercici 1

➔ Elimina de la taula transaction el registre amb ID 02C6201E-D90A-1859-B4EE-88D2986D3B02 de la base de dades.



➢ codigo:
DELETE FROM transaction WHERE id='02C6201E-D90A-1859-B4EE-88D2986D3B02';

➔ exercici 2

- **La secció de màrqueting desitja tenir accés a informació específica per a realitzar anàlisi i estratègies efectives. S'ha sol·licitat crear una vista que proporcioni detalls clau sobre les companyies i les seves transaccions. Serà necessària que creïs una vista anomenada VistaMarketing que contingui la següent informació: Nom de la companyia. Telèfon de contacte. País de residència. Mitjana de compra realitzat per cada companyia. Presenta la vista creada, ordenant les dades de major a menor mitjana de compra.**

❖ **creo y muestro el contenido de la vista**

```
1  CREATE VIEW VistaMarketing AS
2  SELECT company_name'Nom companyia',phone'Telèfon',
3  country'País',ROUND( AVG(amount),2)'Mitjana compra'
4  FROM company
5  join transaction on company_id = company.id
6  where declined = 0
7  group by company_id
8  order by 'Mitjana compra' desc;
9  select*from VistaMarketing;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Nom companyia	Telèfon	País	Mitjana compra
Nunc Interdum Incorporated	05 18 15 48 13	Germany	242.95
Amet Nulla Donec Corporation	07 15 25 14 74	Italy	92.61
Non Institute	06 77 15 31 14	United Kingdom	297.04
Ut Semper Foundation	01 60 36 33 06	Sweden	277.97
Ac Fermentum Incorporated	06 85 56 52 33	Germany	293.57
NULL	NULL	NULL	111.11
Lorem Eu Incorporated	01 83 66 62 07	Canada	258.64
Enim Condimentum Ltd	09 55 51 66 25	United Kingdom	260.32
Malesuada PC	01 74 85 68 70	Ireland	291.88
Tortor Nunc Commodo Company	05 35 92 77 16	United States	447.11
Arcu LLP	06 46 04 41 45	Norway	250.23
Donec Fringilla PC	01 51 58 14 44	France	119.68

➢ codigo:

```
CREATE VIEW VistaMarketing AS
SELECT company_name'Nom companyia',phone'Telèfon',
country'País',ROUND( AVG(amount),2)'Mitjana compra'
FROM company
join transaction on company_id = company.id
where declined = 0
group by company_id
order by 'Mitjana compra' desc;
select*from VistaMarketing;
```

➢ explicación:

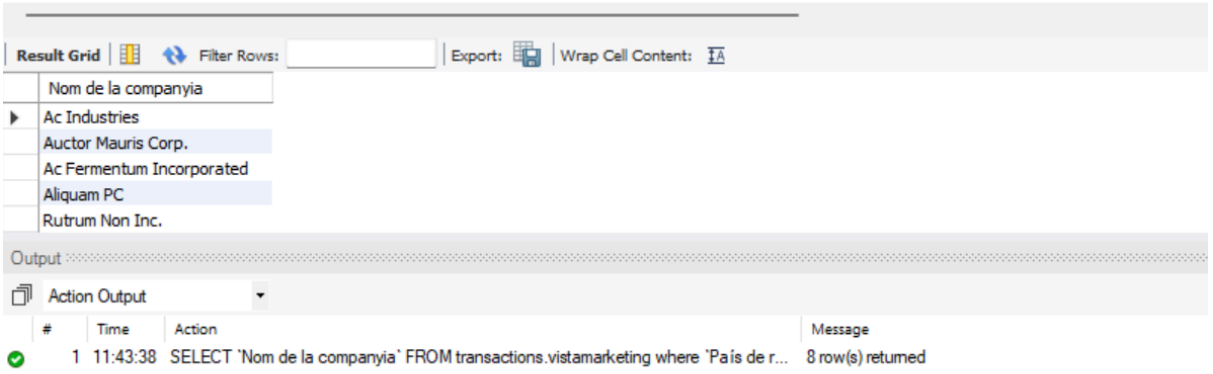
Para crear una nueva vista utilizo ‘Create view’ seguido del nombre de la vista.
Selecciono las columnas que quiero mostrar de la tabla ‘Company’ y a traves de la relacion ‘transaction.company_id = company.id’ con la tabla ‘Transaction’ puedo mostrar la media de las transacciones agrupadas por compañia.
Con ‘declined=0’ selecciono solo las transacciones no declinadas.
Con ‘Round(avg(..),2) limito los decimales del resultado.

➔ exercici 3

- **Filtra la vista VistaMarketing per a mostrar només les companyies que tenen el seu país de residència en "Germany"**

❖ **selecciono los valores filtrados**

```
1 •  SELECT `Nom de la companyia` FROM transactions.vistamarketing
2    where `País de residència`='germany';
```



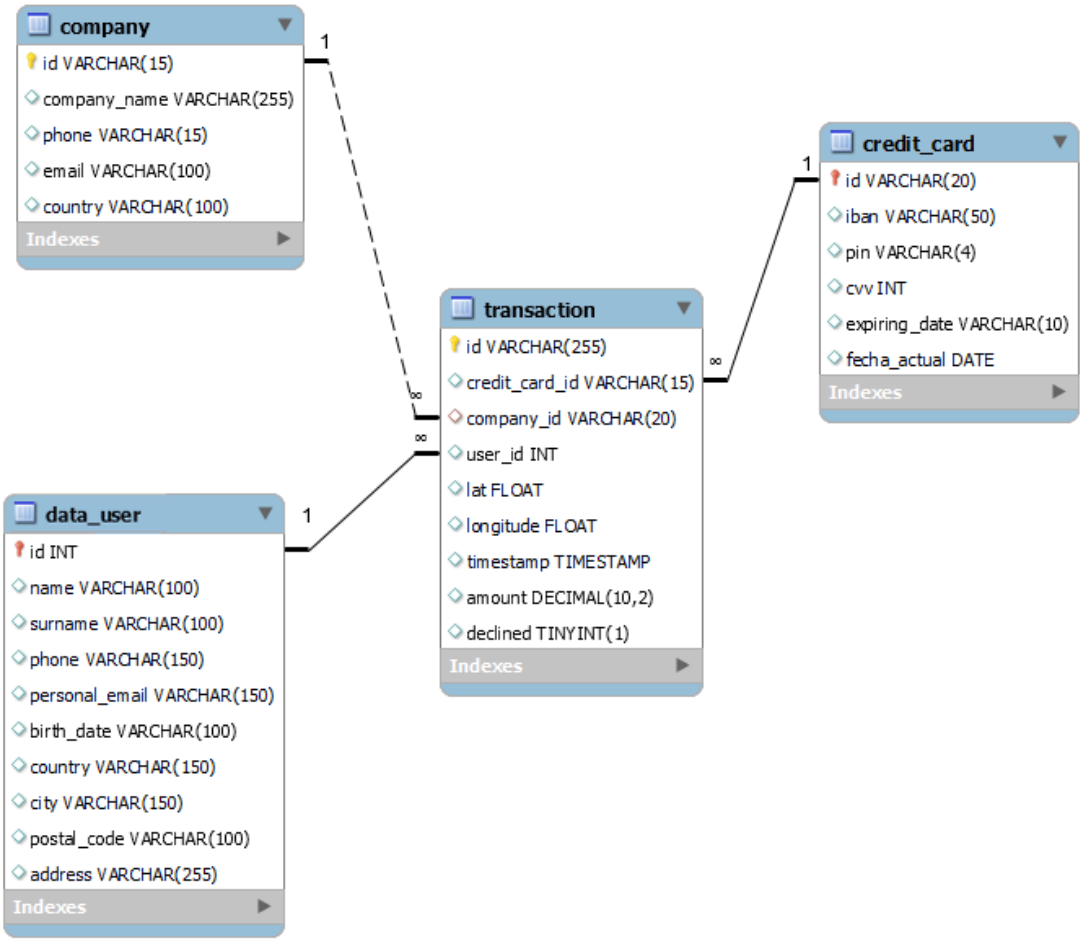
➢ codigo:
SELECT `Nom de la companyia` FROM transactions.vistamarketing
where `País de residència`='germany';

➢ explicación:
Utilizo la vista como si fuera una tabla: selecciono los nombres de las compañias que cumplen la cláusula contenida en el ‘Where’.

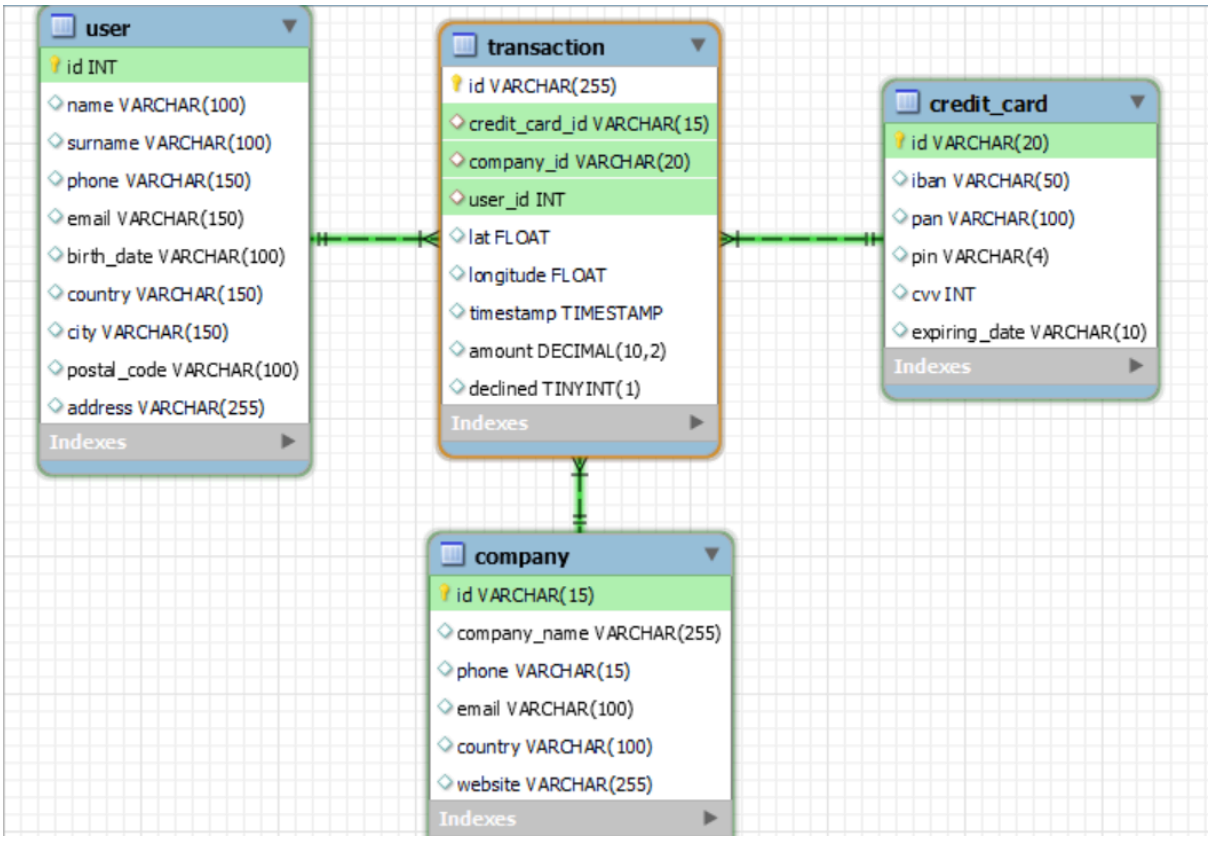
★ NIVELL 3

➔ exercici 1

- **La setmana vinent tindràs una nova reunió amb els gerents de màrqueting. Un company del teu equip va realitzar modificacions en la base de dades, però no recorda com les va realitzar. Et demana que l'ajudis a deixar els comandos executats per a obtenir el següent diagrama:**



- **muestro el diagrama de base**



- **muestro el codigo**

```
1 •  alter table company drop website;
2 •  alter table user rename data_user;
3 •  alter table data_user rename column email to personal_email;
4 •  alter table credit_card add column fecha_actual date;
5
```

Output

Action Output

#	Time	Action	Message
1	17:59:17	alter table company drop website	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
2	17:59:17	alter table user rename data_user	0 row(s) affected
3	17:59:17	alter table data_user rename column email to personal_email	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
4	17:59:17	alter table credit_card add column fecha_actual date	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

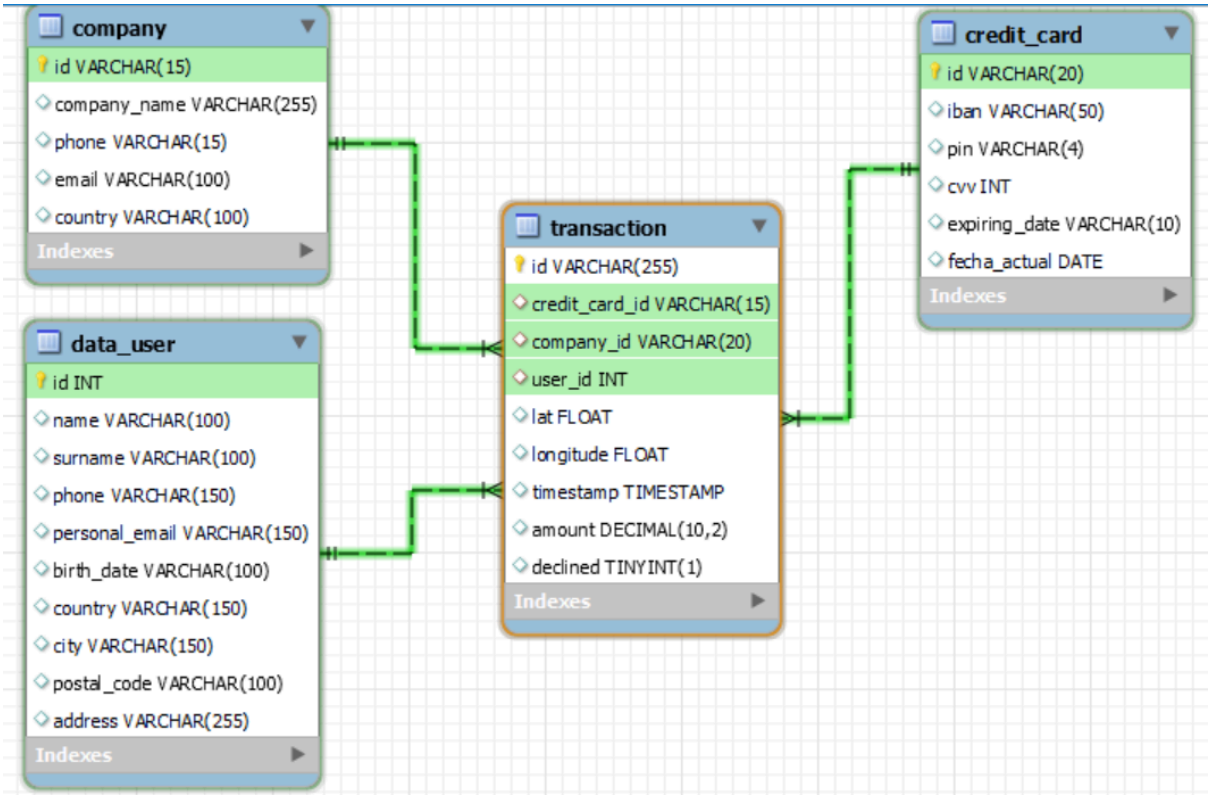
```
1 •  ALTER TABLE transaction DROP FOREIGN KEY fk_cc;
2 •  ALTER TABLE credit_card MODIFY id VARCHAR(20);
3 •  ALTER TABLE transaction ADD CONSTRAINT fk_cc FOREIGN KEY (credit_card_id) REFERENCES credit_card(id);
4
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:47:06	ALTER TABLE transaction DROP FOREIGN KEY fk_cc	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.015 sec
2	14:47:06	ALTER TABLE credit_card MODIFY id VARCHAR(20)	276 row(s) affected Records: 276 Duplicates: 0 Warnings: 0	0.078 sec
3	14:47:06	ALTER TABLE transaction ADD CONSTRAINT fk_cc FOREIGN KEY (cr...	587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0	0.110 sec

- **muestro el resultado**



- codigo:

```
alter table company drop website;
alter table user rename data_user;
alter table data_user rename column email to personal_email;
alter table credit_card add column fecha_actual date;
```

➔ exercici 2

- **L'empresa també et sol·licita crear una vista anomenada "InformeTecnico" que contingui la següent informació:**
  ID de la transacció
  Nom de l'usuari/ària
  Cognom de l'usuari/ària
  IBAN de la targeta de crèdit usada.
  Nom de la companyia de la transacció realitzada.

Assegura't d'incloure informació rellevant de totes dues taules i utilitza àlies per a canviar de nom columnes segons sigui necessari. Mostra els resultats de la vista, ordena els resultats de manera descendent en funció de la variable ID de transaction.

```
1 •  CREATE VIEW InformeTecnico AS
2    SELECT transaction.id 'ID transacció',data_user.name'Nom',data_user.surname'Cognom',credit_card.iban'IBAN',company.company_name'Companyia'
3    FROM transaction
4    join data_user on data_user.id=transaction.user_id
5    join credit_card on credit_card.id=transaction.credit_card_id
6    join company on transaction.company_id = company.id
7    order by transaction.id desc;
8 •  select*from informetecnico;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

ID transacció	Nom	Cognom	IBAN	Companyia
FE96CE47-8D59-381C-4E18-E3CA3D44E8FF	Kenyon	Hartman	DO26854763748537475216568689	Magna A Neque Industries
FE809ED4-2DB6-55AC-C915-929516E4646B	Molly	Gilliam	SE2813123487163628531121	Nunc Interdum Incorporated
FD9CBCCD-8E1E-8DA1-4606-7E3A6F3A5A65	Linus	Willis	KW9485332754781757886242955643	Nunc Interdum Incorporated
FD89D51B-AE8D-77DC-E450-B8083FBD3187	Hilda	Levy	LT053237077744561475	Malesuada PC
FD2E8957-414B-BEEC-E9AD-59AA7A8A6290	Hedwig	Gilbert	GE84848451582810541526	Neque Tellus Imperdiet Corp.
FCE2AB9A-271D-2BDC-9E49-8DD92A373391	Hakeem	Alford	MD1234119525145401270486	Nunc Interdum Incorporated

informetecnico 5 ×

Output

Action Output

#	Time	Action	Message
1	18:05:27	CREATE VIEW InformeTecnico AS SELECT transaction.id 'ID transacció...	0 row(s) affected
2	18:05:27	select*from informetecnico LIMIT 0, 500	500 row(s) returned

➢ codigo:

```
CREATE VIEW InformeTecnico AS
SELECT transaction.id 'ID
transacció',data_user.name'Nom',data_user.surname'Cognom',credit_card.iban'IBAN',compa
ny.company_name'Companyia'
FROM transaction
join data_user on data_user.id=transaction.user_id
join credit_card on credit_card.id=transaction.credit_card_id
join company on transaction.company_id = company.id
order by transaction.id desc;
select*from informetecnico;
```

➢ explicación:
Para crear una nueva vista utilizo ‘Create View ** as’.
Despues selecciono todas las columnas necesarias a mostrar las informaciones requeridas.
Utilizo ‘Join’ para poder mostrar las informaciones de todas las tablas relacionadas.
Ordeno todo por el Id de la transaccion.