```sql
CREATE TABLE credit_card(
    id VARCHAR(100) NOT NULL,
    iban VARCHAR(100) NOT NULL,
    pan VARCHAR(30) NOT NULL,
    pin VARCHAR(20) NOT NULL,
    cvv INT NOT NULL,
    expiring_date VARCHAR(20) NOT NULL,
    PRIMARY KEY(id) );
```

1

Output

Action Output

#	Time	Action	Message
1	18:13:52	CREATE TABLE credit_card(id VARCHAR(100) NOT NULL, iban VARCHAR(100) NOT NULL, pan INT NOT NUL...	0 row(s) affected

```sql
-- ------------------------------------------------------------------------------------
-- Después de crear la tabla, insertamos los datos que corredponden a esta.
-- ------------------------------------------------------------------------------------
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', 'DO28054763748537475216568689', '5142423821948828', '9080', '887', '08/24/23');
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', 'GE89681434837748781813', '3763 747687 76666', '2298', '797', '10/31/23');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2994', 'BH62714428368066765294', '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', '09/16/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-3008', 'LU5072166936161192 30', '4485744464433884', '1856', '740', '04/05/25');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-3015', 'PS1193982162957159683424568 21', '3784 662233 17389', '3246', '822', '01/31/22');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-3022', 'GT9169516285055697 7423121857', '5164 1379 4842 3951', '5610', '342', '04/25/25');
INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-3029', 'AZ623174139824414181 23739746', '3429 279566 77631', '9708', '505', '09/02/23');
```

2

Output

Action Output

#	Time	Action	Message	Duration / Fetch
4995	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9573', 'XX9653389310530889019...	1 row(s) affected	0.000 sec
4996	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9574', 'XX6627617583614326865...	1 row(s) affected	0.000 sec
4997	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9575', 'XX4998121607362657 11...	1 row(s) affected	0.000 sec
4998	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9576', 'XX5297109305877126417...	1 row(s) affected	0.000 sec
4999	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9577', 'XX1589140785948086331...	1 row(s) affected	0.000 sec
5000	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9578', 'XX9915396464561105678...	1 row(s) affected	0.015 sec
5001	19:18:45	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcS-9579', 'XX2963930915871702021...	1 row(s) affected	0.000 sec

N1.1

Utilizando esta query, creamos una nueva tabla “credit_card” y declaramos el type que va a tener cada columna.
Después insertamos los datos en la tabla.

N1.1

Comprobamos que la los datos se han insertado de manera correcta y mostramos la tabla.
creamos una FK para relacionar las tablas “credit_card”(id) con “transaction”(credit_card_id)

```
1 •  SELECT * FROM transactions.credit_card;
2
3
```

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

id	iban	pan	pin	cvv	expiring_date
CcS-4857	XX4857591835292505850771	2314242385113924	1819	467	09/27/25
CcS-4858	XX8581768137002436094025	6582720299715533	3964	817	12/28/28
CcS-4859	XX7826930491423553609370	8861684536289642	4983	277	11/26/26
CcS-4860	XX5559590368835304645299	2481155515498459	6876	661	07/27/27
CcS-4861	XX2035182877195191627307	1308930301149557	5710	398	04/25/26
CcS-4862	XX4774721462463645409758	6715617009807829	4042	174	11/27/26
CcS-4863	XX1476829664245046207111	3140879819451394	5969	449	12/27/29
CcS-4864	XX8380298893385731196159	5793672133649114	8481	139	02/28/26
CcS-4865	XX7085078596101025280599	5101552687251312	7847	903	11/25/28
CcS-4866	XX4792859188206596406839	8080768801072613	9271	961	02/28/25
CcS-4867	XX6038298816319374853717	7761849537661098	4820	862	11/30/25
CcS-4868	XX3929101617300533068044	4160419663151801	6860	549	08/25/25
CcS-4869	XX1566712096111531886465	5892930716233310	4775	448	09/29/25
CcS-4870	XX6443663804167732133949	2227240879956178	5872	715	01/25/25
CcS-4871	XX3520209528376786066563	6944143455556838	7992	643	07/26/26

credit_card 22 ×

Output

Action Output

#	Time	Action	Message
1	10:44:54	SELECT * FROM transactions.credit_card	5000 row(s) returned

```
2 •  ALTER TABLE `transaction`
3    ADD CONSTRAINT FK_Credit_card
4    FOREIGN KEY (credit_card_id) REFERENCES credit_card(id);
```

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

id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
00045D68-ED2E-4F2F-8186-CEE074D875D0	CcS-6699	b-2390	2118	29.7573	-95.3796	2020-07-14 15:37:45	326.01	0
000481C3-1C26-4FEF-83A0-4CD0EB004BBD	CcS-6696	b-2230	2115	53.5489	-113.503	2017-09-04 19:44:53	161.60	0
00051AA4-9CBE-4268-B070-C38062A1B3E2	CcS-7606	b-2266	3025	52.2084	5.69081	2017-01-05 18:19:25	148.91	0
0008A312-EDFE-4A4F-BC99-E9C92EC3CA4D	CcU-3358	b-2598	215	53.5535	-113.499	2023-09-23 04:51:43	294.59	0
0009A151-9BCF-4E31-9053-A468FF77FAAB	CcS-7509	b-2546	2928	51.9362	5.34265	2023-12-31 00:06:36	383.63	0
0009D494-6245-4DF9-955D-2C084191CFFB	CcS-8483	b-2526	3902	45.492	-73.5706	2017-07-18 07:52:02	197.80	0
000A1DEC-CDB6-4AB2-A619-71DAB8D4A262	CcS-6467	b-2558	1886	55.7425	-3.30009	2018-09-08 05:29:58	339.94	0
000A1E64-1414-40B0-9D92-5678A4D958E2	CcS-5966	b-2550	1385	52.0821	5.28424	2022-09-17 04:02:19	369.71	0
000A5879-3472-41D9-AF60-42D35038543C	CcU-4569	b-2590	42	39.949	-75.1719	2020-02-07 23:03:45	162.43	0
000AE0D4-F06E-4146-804A-5A2FC73110D7	CcS-8134	b-2426	3553	46.8055	-71.2149	2017-07-10 07:11:41	188.94	0
000BCBF8-A4AB-4E8E-A148-2E7A04E1B385	CcS-6020	b-2598	1439	33.4472	-112.072	2019-05-28 04:23:02	96.22	0
000BD852-E25B-4785-93D9-27051425D45B	CcS-5445	b-2330	864	51.4317	5.47489	2024-07-31 09:45:39	92.13	0
000DAA8F-ABEA-4F32-A090-B9CC07E5D9E9	CcS-6404	b-2454	1823	41.7392	12.6293	2023-07-26 22:39:50	298.18	0
000E44B7-43B4-443D-8BB2-A8AD4803D081	CcS-7604	b-2458	3023	54.9751	-3.40465	2018-08-01 11:03:20	171.13	0
000E64A2-2C13-4306-BB25-B292ED79413D	CcS-6737	b-2386	2156	45.4992	-73.5719	2018-05-30 16:09:08	105.03	0

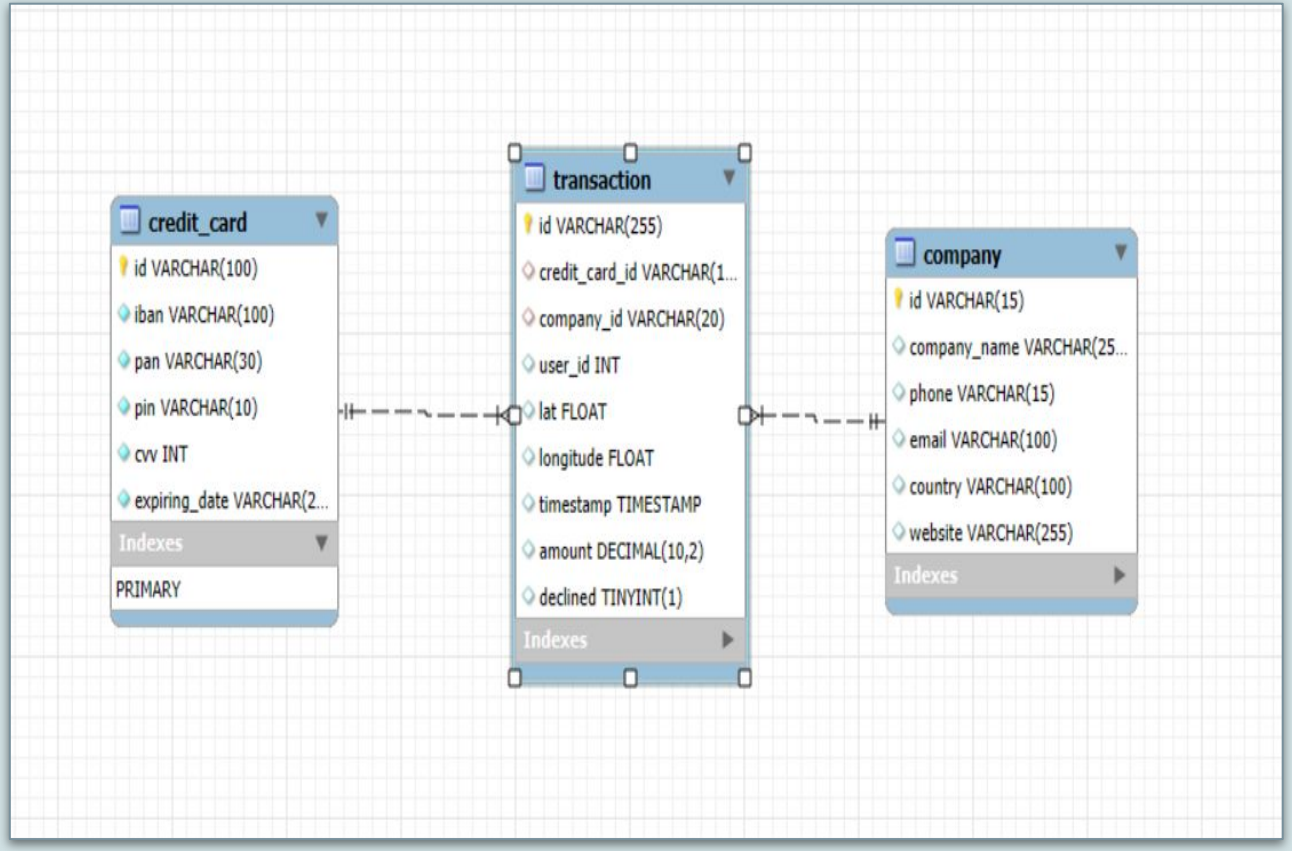
transaction 2 ×

Output

Action Output

#	Time	Action	Message
3	21:31:14	ALTER TABLE `transaction` ADD CONSTRAINT FK_Credit_card FOREIGN KEY (credit_card_id) REFERENCES c...	100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0

N1.1



Las tablas tiene una relación 1 a N.
La tabla de hechos es “transaction” mientras “company” y “credit_card” son tablas de dimensión.

La PK de “transaction” es id
La PK de “company” es id
La PK de “credit_card” es id

La tabla “transaction” se relaciona con las tablas “company” y “credit_card” mediante dos FK’s Donde:

company_id hace referencia a id en la tabla “company”.
credit_card_id hace referencia a id en la tabla “credit_card”.

```sql
SELECT *
FROM credit_card
WHERE id = 'CcU-2938';
```

1

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

id	iban	pan	pin	cvv	expiring_date
CcU-2938	TR301950312213576817638661	5424465566813633	3257	984	10/30/22
NULL	NULL	NULL	NULL	NULL	NULL

credit_card 6

Output

Action Output

#	Time	Action	Message
1	11:01:30	SELECT * FROM credit_card WHERE id = 'CcU-2938'	1 row(s) returned

```sql
SELECT cc.id, cc.iban
FROM credit_card cc
WHERE cc.id = 'CcU-2938';
```

3

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

id	iban
CcU-2938	TR323456312213576817699999
NULL	NULL

credit_card 9

Output

Action Output

#	Time	Action	Message
1	11:05:12	SELECT cc.id, cc.iban FROM credit_card cc WHERE cc.id = 'CcU-2938'	1 row(s) returned

```sql
UPDATE credit_card cc
    SET cc.iban = 'TR323456312213576817699999'
WHERE cc.id = 'CcU-2938';
```

2

Output

Action Output

#	Time	Action	Message
1	11:02:41	UPDATE credit_card cc SET cc.iban = 'TR323456312213576817699999' WHERE cc.id = 'CcU-2938'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0

N1.2

Hemos de actualizamos el Iban de credit card que nos indican. Antes de realizar el cambio vemos cuales el que tenemos en la base de datos, luego realizamos el cambio y lo mostramos.

```sql
SELECT *
FROM company  -- No hay ninguna compañia en la base de datos con el id b-9999. Cremaos una usando ese id.
WHERE id = 'b-9999';
--  ----------
SELECT *
FROM credit_card  -- No hay ninguna credit_card en la base de datos con el id CcU-9999. Cremaos una usando ese id.
WHERE id = 'CcU-9999';
```

1

```sql
INSERT INTO company
        ( id, company_name, phone, email, country, website )
VALUES  ( 'b-9999', 'Tranportes Pepe','03 74 10 58 35', 'logstica.transportes@ttspepe.com', 'Spain', 'https://transportespepe.com/one' );
-- ---------
```

2

Output

Action Output

#	Time	Action	Message
1	12:16:50	INSERT INTO company (id, company_name, phone, email, country, website) VALUES('b-9999', 'Tranportes Pepe','0...	1 row(s) affected

```sql
INSERT INTO credit_card
        (id, iban, pan, pin, cvv, expiring_date)
VALUES  ('CcU-9999', 'XX3612545377111118548758877', '1147800632149950', '2876', '551', '09/27/28');
```

3

Output

Action Output

#	Time	Action	Message
1	12:27:10	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-9999', 'XX3612545377111185487...	1 row(s) affected

N1.3

Hemos de insertar una nueva transacción, antes de de insertar los datos comprobamos que exista la empresa y la credit card que la realizan. Vemos que ninguna de las dos existen en sus respectivas tablas en la base de datos. Con lo cual las creamos y guardamos.

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

4

Output

Action Output

#	Time	Action	Message
1	12:53:48	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat,timestamp, longitude, amount, declined) VALU...	1 row(s) affected

```sql
SELECT *
FROM transaction
WHERE id = '108B1D1D-5B23-A76C-55EF-C568E49A99DD';
```

5

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

id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
108B1D1D-5B23-A76C-55EF-C568E49A99DD	CcU-9999	b-9999	9999	829.999	-117.999	2025-10-23 12:53:48	111.11	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

transaction 13

Output

Action Output

#	Time	Action	Message
1	12:55:45	SELECT * FROM transaction WHERE id = '108B1D1D-5B23-A76C-55EF-C568E49A99DD'	1 row(s) returned

N1.3

Después de haber creado la compañía y credit card, insertamos la datos de la transacción y para comprobar mostramos la tabla con estos.

```
55 •  ALTER TABLE credit_card
56    DROP pan;
57
```

1

Output

Action Output

#	Time	Action	Message
1	13:11:26	ALTER TABLE credit_card DROP pan	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

```
58 •  SELECT *
59        FROM credit_card;
60
```

2

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

id	iban	pin	cvv	expiring_date
CcS-4857	XX4857591835292505850771	1819	467	09/27/25
CcS-4858	XX8581768137002436094025	3964	817	12/28/28
CcS-4859	XX7826930491423553609370	4983	277	11/26/26
CcS-4860	XX5559590368835304645299	6876	661	07/27/27
CcS-4861	XX2035182877195191627307	5710	398	04/25/26
CcS-4862	XX4774721462463645409758	4042	174	11/27/26

credit_card 14 ×

Output

Action Output

#	Time	Action	Message
1	13:15:00	SELECT * FROM credit_card	5001 row(s) returned

N1.4

Aquí hemos de eliminar la columna “pan” de la tabla credit_card.
la eliminamos y para comprobar mostramos la tabla.

```sql
DELETE
FROM transaction
WHERE id = '000447FE-B650-4DCF-85DE-C7ED0EE1CAAD';
```

1

Output

Action Output

#	Time	Action	Message
1	13:25:11	DELETE FROM transaction WHERE id = '000447FE-B650-4DCF-85DE-C7ED0EE1CAAD'	1 row(s) affected

```sql
SELECT *
FROM transaction
WHERE id = '000447FE-B650-4DCF-85DE-C7ED0EE1CAAD';
```

2

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

id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

transaction 16

Output

Action Output

#	Time	Action	Message
1	13:26:55	SELECT * FROM transaction WHERE id = '000447FE-B650-4DCF-85DE-C7ED0EE1CAAD'	0 row(s) returned

N2.1

Hemos de eliminar del registro con id “000447FE-B650…” de la tabla transaction.
Lo eliminamos y para comprobarlo mostramos la tabla.

```sql
CREATE VIEW vista_marketing AS
SELECT
    c.company_name,
    c.phone,
    c.country,
    ROUND(AVG(t.amount), 2) AS media_compras
FROM company c
JOIN transaction t
    ON c.id = t.company_id
GROUP BY c.company_name,
         c.phone,
         c.country
;
```

1

Output

Action Output

#	Time	Action	Message
1	16:23:04	CREATE VIEW vista_marketing AS SELECT c.company_name, c.phone, c.country, ROUND(AVG(t.amount),...	0 row(s) affected

```sql
SELECT *
FROM vista_marketing
ORDER BY media_compras DESC;
```

2

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

company_name	phone	country	media_compras
Ac Fermentum Incorporated	06 85 56 52 33	Germany	284.87
Pretium Neque Corp.	07 77 48 55 28	Australia	276.16
Urna Convallis Associates	06 01 24 77 04	United States	274.24
At Associates	09 56 61 10 65	New Zealand	272.21
Metus Vitae Associates	08 25 44 40 66	Australia	270.08
Aliquet Diam Limited	02 76 61 47 46	United States	269.60

vista_marketing 28

Output

Action Output

#	Time	Action	Message
1	16:30:01	SELECT * FROM vista_marketing ORDER BY media_compras DESC	101 row(s) returned

N2.2

Hemos de crear una vista, “vista_marketing”.

La creamos y para comprobar mostramos la vista ordenando el resultado de mayor a menor promedio de compras, “media_compras”.

```
93 •  SELECT *
94    FROM vista_marketing
95    WHERE country = 'Germany';
96
```

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

company_name	phone	country	media_compras
Ac Fermentum Incorporated	06 85 56 52 33	Germany	284.87
Nunc Interdum Incorporated	05 18 15 48 13	Germany	259.32
Convallis In Incorporated	06 66 57 29 50	Germany	257.75
Ac Industries	09 34 65 40 60	Germany	255.15
Rutrum Non Inc.	02 66 31 61 09	Germany	255.14
Auctor Mauris Corp.	05 62 87 14 41	Germany	254.77
Augue Foundation	06 88 43 15 63	Germany	253.51
Aliquam PC	01 45 73 52 16	Germany	253.14

vista_marketing 19 ×

Output

Action Output

#	Time	Action	Message
1	14:21:53	SELECT * FROM vista_marketing WHERE country = 'Germany'	8 row(s) returned

N2.3

Filtramos la vista “vista_marketing” para mostrar sólo las compañías que tienen su país de residencia en "Germany"

N3.1

Se han realizado modificaciones y hemos de poner los comando se han hecho para ello.
Creamos la tabla “user”, comprobamos e insertamos los datos de esta.

```
99  CREATE TABLE IF NOT EXISTS user(
100     id INT PRIMARY KEY, -- Cambio el type de CHAR a INT para compatibilizar con user_id en transacction
101     name VARCHAR(100),
102     surname VARCHAR(100),
103     phone VARCHAR(150),
104     email VARCHAR(150),
105     birth_date VARCHAR(100),
106     country VARCHAR(150),
107     city VARCHAR(150),
108     postal_code VARCHAR(100),
109     address VARCHAR(255)
110 );
```

1

Output

Action Output

#	Time	Action	Message
1	20:32:40	CREATE TABLE IF NOT EXISTS user(id INT PRIMARY KEY, -- Cambio el type de CHAR a INT para compatibilizar c...	0 row(s) affected

```
112  SELECT *
113  FROM user;
```

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

id	name	surname	phone	email	birth_date	country	city	postal_code	address
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2

user 2

Output

Action Output

#	Time	Action	Message
1	20:34:45	SELECT * FROM user	0 row(s) returned

```
3  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "152", "Hakeem", "Alford", "(0111) 367 0184", "adipiscing.ligula
4  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "153", "Keegan", "Pugh", "(016977) 3851", "sodales.nisi@aol.org"
5  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "154", "Cooper", "Bullock", "(021) 2521 6627", "et@outlook.net",
6  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "155", "Joshua", "Russell", "055 4409 5286", "justo.nec.ante@out
7  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "156", "Remedios", "Case", "055 3114 1566", "mollis.phasellus.li
8  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "157", "Philip", "Carey", "0800 640 6251", "phasellus@yahoo.net"
9  INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ( "158", "Fatima", "Dyer", "0800 1111", "adipiscing@google.org",
```

3

Output

Action Output

#	Time	Action	Message	Duration / Fetch
4985	20:36:23	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (...	1 row(s) affected	0.000 sec
4986	20:36:23	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (...	1 row(s) affected	0.000 sec
4987	20:36:23	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (...	1 row(s) affected	0.000 sec

```
114     -- ------ Cambiamos el nombre de la tabla.
115     RENAME TABLE user to data_user;
116     -- ------ Cambiamos el nombre de la columna email.
117     ALTER TABLE data_user
118     RENAME COLUMN email TO personal_email;
119     -- ------ Mostramos los cambios.
120     SELECT *
121     FROM data_user;
```

4

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

id	name	surname	phone	personal_email	birth_date	country	city	postal_code	address
1	Zeus	Gamble	1-282-581-0551	interdum.enim@protonmail.edu	Nov 17, 1985	United States	New York	10001	348-7818 Sagittis St.
2	Garrett	Mcconnell	(718) 257-2412	integer.vitae.nibh@protonmail.org	Aug 23, 1992	United States	Philadelphia	19101	903 Sit Ave
3	Ciaran	Harrison	(522) 598-1365	interdum.feugiat@aol.org	Apr 29, 1998	United States	Houston	77001	736-2063 Tellus St.
4	Howard	Stafford	1-411-740-3269	ornare.egestas@icloud.edu	Feb 18, 1989	United States	Phoenix	85001	Ap #545-2244 Erat. Rd.
5	Hayfa	Pierce	1-554-541-2077	et.malesuada.fames@hotmail.org	Sep 26, 1998	United States	Philadelphia	19101	341-2821 Ultrices Av.
6	Joel	Tyson	(718) 288-8020	gravida.nunc.sed@yahoo.ca	Oct 15, 1989	United States	San Jose	95101	888-2799 Amet Street
7	Rafael	Jimenez	(817) 689-0478	eget@outlook.ca	Dec 4, 1981	United States	Chicago	60601	8627 Malesuada Rd.
8	Nissim	Franks	(692) 157-3469	egestas.aliquam.fringilla@google.ca	Aug 1, 1993	United States	New York	10001	Ap #251-7144 Integer St.

data_user 20

Output

Action Output

#	Time	Action	Message
1	13:32:01	SELECT * FROM data_user	5001 row(s) returned

```
122     -- ------ Eliminamos la columna Website de la tabla company.
123     ALTER TABLE company
124     DROP COLUMN website;
125     -- ------ Mostramos el cambio.
126     SELECT *
127     FROM company;
```

5

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

id	company_name	phone	email	country
b-2222	Ac Fermentum Incorporated	06 85 56 52 33	donec.porttitor.tellus@yahoo.net	Germany
b-2226	Magna A Neque Industries	04 14 44 64 62	risus.donec.nibh@icloud.org	Australia
b-2230	Fusce Corp.	08 14 97 58 85	risus@protonmail.edu	United States
b-2234	Convallis In Incorporated	06 66 57 29 50	mauris.ut@aol.couk	Germany
b-2238	Ante Iaculis Nec Foundation	08 23 04 99 53	sed.dictum.proin@outlook.ca	New Zealand

company 24

Output

Action Output

#	Time	Action	Message
1	14:11:51	SELECT * FROM company	101 row(s) returned

"data_user"

- Cambiamos el nombre de la tabla.
- Cambiamos el nombre de la columna "email"
- Mostramos los cambios.

"company"

- Eliminamos la columna "website.
- Mostramos los cambios.

```sql
-- ----- Eliminamos la FK credit_card_id.
ALTER TABLE transaction
DROP FOREIGN KEY FK_Credit_card;
-- ----- Cambiamos el type de la columna credit_card_id en la tabla transaction.
ALTER TABLE transaction
MODIFY credit_card_id varchar(20) NOT NULL;
-- ----- Cambiamos todos los types de la columnas de credit_card
ALTER TABLE credit_card
MODIFY id varchar(20) NOT NULL,
MODIFY iban varchar(50) NOT NULL,
MODIFY pin varchar(4) NOT NULL,
MODIFY cvv INT NOT NULL;
```

6

Output

Action Output

#	Time	Action	Message
1	14:16:25	ALTER TABLE transaction DROP FOREIGN KEY FK_Credit_card	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
2	14:16:33	ALTER TABLE transaction MODIFY credit_card_id varchar(20) NOT NULL	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
3	14:16:36	ALTER TABLE credit_card MODIFY id varchar(20) NOT NULL, MODIFY iban varchar(50) NOT NULL, MODIFY pin v...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

```sql
-- ----- Creamos una FK para relacionar "credit_card" con "transaction".
ALTER TABLE transaction
ADD CONSTRAINT FK_Credit_card
FOREIGN KEY (credit_card_id) REFERENCES credit_card(id);
-- ----- Añadimos en la tabla credit_card una nueva columna llamada fehca_actual.
-- ----- Le ponemos la fecha actual en la que la insertamos.
ALTER TABLE credit_card
ADD COLUMN fecha_actual DATE DEFAULT (CURRENT_DATE);
```

7

Output

Action Output

#	Time	Action	Message
1	14:23:39	ALTER TABLE transaction ADD CONSTRAINT FK_Credit_card FOREIGN KEY (credit_card_id) REFERENCES credit...	100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0
2	14:23:44	ALTER TABLE credit_card ADD COLUMN fecha_actual DATE DEFAULT (CURRENT_DATE)	5001 row(s) affected Records: 5001 Duplicates: 0 Warnings: 0

“credit_card”

- Eliminamos la FK de la tabla.

- Cambiamos el type de de las columna de la tabla.

- Creamos nuevamente la FK para relacionarla con la tabla “transation” tras cambiar los types.

- Añadimos una nueva columna llamada “fecha_actual” de type DATE.

- Le insertamos la fecha actual con CUARRENT_DATE

- Eliminamos la vista “vista_marketing”
- Insertamos los datos de usuario de la empresa que habíamos creado el el apartado “N1.3”.
- Añadimos la FK para relacionar "data_user" con "transaction".

```
160     FROM credit_card;
161     -- ----- Eliminamos la vista vista_marketing.
162 •   DROP VIEW vista_marketing;
```

8

Output

Action Output

#	Time	Action	Message
1	17:28:55	DROP VIEW vista_marketing	0 row(s) affected

```
153     -- ------ Insertamos tambien el los datos del user la nueva empresa que hemos creado antriormente.
154 •   INSERT INTO data_user
155             (id, name, surname, phone, personal_email, birth_date, country, city, postal_code, address)
156     VALUES  ('9999', 'Maria', 'Gutierrez', '034 4759 2148' ,'m.gutierrez@ttspepe.com', 'Jul 04, 1970',' Spain', 'Murcia', '030710', 'calle ciencia 24');
```

9

Output

Action Output INSERT INTO data_user (id, name, surname, phone, personal_email, birth_date, country, city, postal_code, address) ...

#	Time	Action	Message
1	22:04:03	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES ('999...	1 row(s) affected

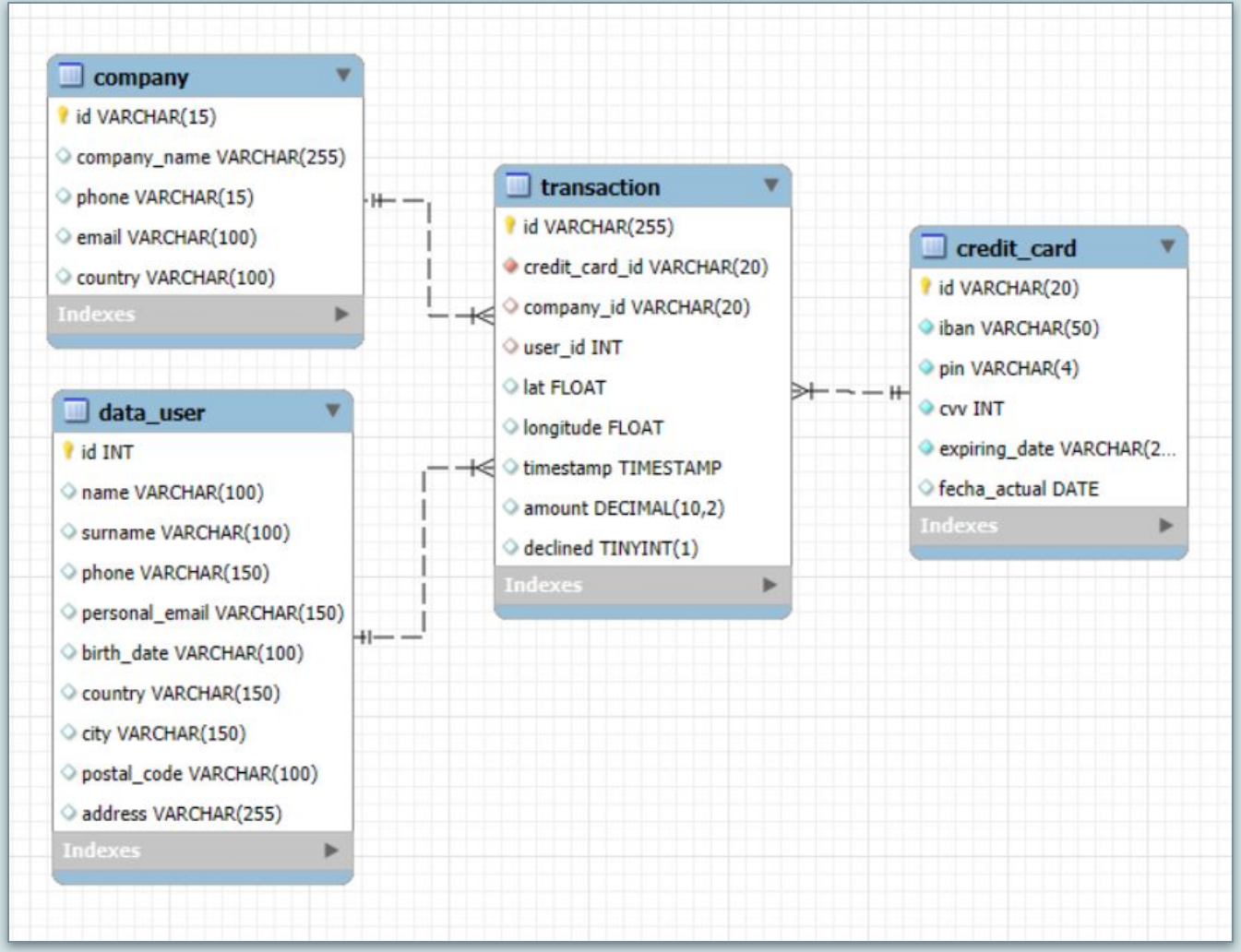
```
158 •   ALTER TABLE transaction
159     ADD CONSTRAINT FK_user_id
160     FOREIGN KEY (user_id) REFERENCES data_user(id);
```

10

Output

Action Output

#	Time	Action	Message
1	14:57:37	ALTER TABLE transaction ADD CONSTRAINT FK_user_id FOREIGN KEY (user_id) REFERENCES data_user(id)	100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0



Tras realizar alizar todos los cambios obtenemos el diagrama que nos pide el ejercicio.

N3.2

1

```sql
CREATE VIEW informe_tecnico AS
SELECT
    t.id  AS id_transaccion,
    u.name  AS nombre_usuario,
    u.surname  AS apellido_usuario,
    cc.iban  AS num_cuenta_bancaria,
    c.company_name  AS nombre_empresa
FROM data_user  AS u
JOIN transaction  AS t
    ON u.id = t.user_id
JOIN company  AS c
    ON c.id = t.company_id
JOIN credit_card  AS cc
    ON t.credit_card_id = cc.id ;
```

Output

Action Output

#	Time	Action	Message
1	17:54:40	CREATE VIEW informe_tecnico AS SELECT t.id AS id_transaccion, u.name AS nombre_usuario, u.surname A...	0 row(s) affected

Hemos de crear una vista llamada “informe_tencnico”.

La creamos y para comprobar mostramos la vista ordenando el resultado de mayor a menor por id de transacción.

2

```sql
SELECT *
FROM informe_tecnico
ORDER BY id_transaccion DESC;
```

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

id_transaccion	nombre_usuario	apellido_usuario	num_cuenta_bancaria	nombre_empresa
FFFD31D6-9495-47CE-B54A-7DB8E1CC274B	Bmrgli	Tprvvmrc	XX7948144512112891824909 22	Turpis Company
FFFCF76D-ECF0-4985-A2D0-B2A7B75998FC	Dfrled	Vilqcjdl	XX6362517016478920366760 34	Amet Nulla Donec Corporation
FFFC9E8D-27C7-4ADE-98F2-7533EF4DF126	Securp	Faofvqfy	XX1626771433042236314375 67	Nunc Interdum Incorporated
FFFB270D-F53A-4D5D-9666-E5307C53CC84	Ggzjpa	Uirzjulh	XX3951142670820199525670 52	Viverra Donec Foundation
FFF9E3CE-234E-408C-A8EF-F9CAD577224A	Yshimq	Zpsjsleed	XX8845462156537570367941	Convallis In Incorporated

informe_tecnico 7

Output

Action Output

#	Time	Action	Message
1	21:36:24	SELECT * FROM informe_tecnico ORDER BY id_transaccion DESC	100000 row(s) returned