



## Sprint 3 - Nivel 1

### Ejercicio 1

Tu tarea es diseñar y crear una tabla llamada "credit\_card" que almacene detalles cruciales sobre las tarjetas de crédito. La nueva tabla debe ser capaz de identificar de forma única cada tarjeta y establecer una relación adecuada con las otras dos tablas ("transaction" y "company"). Después de crear la tabla será necesario que ingreses la información del documento denominado "datos\_introducir\_credit". Recuerda mostrar el diagrama y realizar una breve descripción del mismo.

- Creacion de la Tabla "credit\_card"

```
1 CREATE TABLE IF NOT EXISTS credit_card (  
2     id VARCHAR(20) PRIMARY KEY,  
3     iban VARCHAR (50),  
4     pan VARCHAR (20),  
5     pin VARCHAR (4),  
6     cvv INT,  
7     expiring_date VARCHAR(20)  
8 )
```

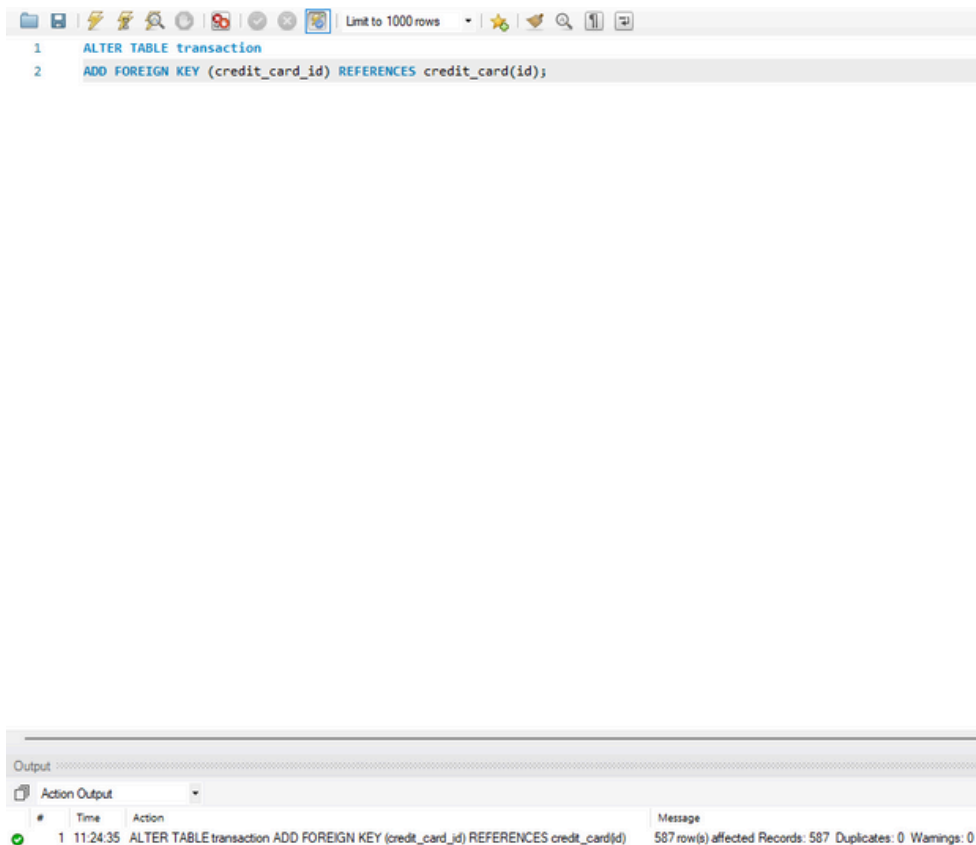
Output			
Action Output			
#	Time	Action	Message
1	11:18:04	CREATE TABLE IF NOT EXISTS credit_card ( id VARCHAR(20) PRIMARY KEY, iban ...	0 rows affected

- Introduccion de los datos en l tabla "credit\_card"

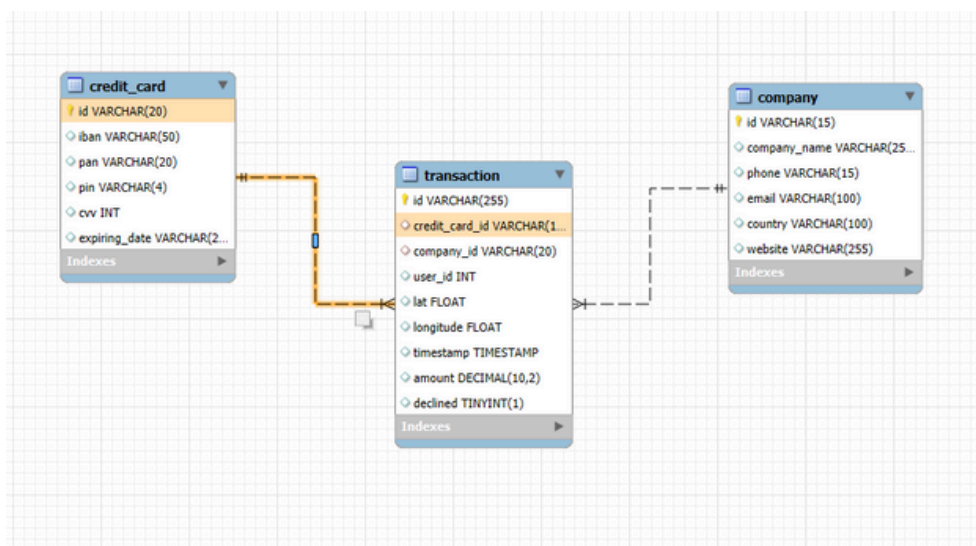
248	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4667', 'PT79551618452454886142166', '3745 466677 72837', '2301', '738', '08/11/24');
249	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4674', 'D071864273752575855510355726', '3437 391826 27572', '4022', '581', '05/23/24');
250	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4681', 'GE38261236481561281317', '448 57826 38974 722', '6486', '707', '04/13/22');
251	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4688', 'IS383255756743611896271882', '347635882232527', '3159', '350', '01/07/26');
252	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4695', 'GT44327784356731881238887639', '376558773427717', '8297', '734', '10/08/23');
253	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4702', 'DK7773824378841877', '348642676875332', '3880', '445', '09/19/22');
254	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4709', 'GE45584127369280168124', '453233 846716 4597', '4796', '233', '11/04/25');
255	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4716', 'PL75422719283842155307261926', '546684 833417 5543', '4252', '997', '08/14/25');
256	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4723', 'FI8248793454336573', '3414 376437 29598', '7936', '243', '07/31/20');
257	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4730', 'EE541536644818872805', '373396765877539', '5988', '908', '03/08/25');
258	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4737', 'AT278617748359359721', '3426 55216 37521', '9048', '509', '02/25/22');
259	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4744', 'AZ58751886174806834766368322', '5256255735951122', '6209', '606', '10/12/21');
260	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4751', 'PK8373846933330403264694', '3436 372241 88142', '6392', '768', '06/19/23');
261	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4758', '085160V61469185263634', '378486693428441', '5241', '571', '07/27/23');
262	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4765', 'SA2888713798782221436615', '448 51353 39347 393', '1667', '153', '02/28/21');
263	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4772', 'HE59832015454148127328', '455 63485 32288 611', '1201', '552', '09/21/20');
264	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4779', 'FI9109231818971761', '513 92416 26288 645', '8788', '131', '08/18/23');
265	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4786', 'S151703104173167515', '557 97688 75435 755', '9802', '199', '05/15/20');
266	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4793', 'HU95215627749276573565556322', '471662 767641 7624', '7216', '848', '11/09/23');
267	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4800', 'SI97824334522161436', '5455 7952 5528 3322', '3745', '886', '05/23/20');
268	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4807', 'LB19298318715580851625676971', '4539 4326 8269 4216', '8596', '626', '04/07/22');
269	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4814', 'H84845282437847152280636374', '374471619343357', '8798', '124', '12/19/20');
270	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4821', 'LT253147585686466784', '453987 7873842836', '9800', '867', '07/15/20');
271	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4828', 'BG11LHJ38149367569464', '4485252735942', '2789', '942', '09/04/22');
272	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4835', 'PT34592171131763200132583', '3723 677744 2255', '1149', '680', '01/08/24');
273	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4842', 'SA2156708581957118818229', '3774 636724 83250', '4655', '758', '11/11/24');
274	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4849', 'SE2813123487163628531121', '522363813491514', '9992', '779', '03/21/25');
275	•	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4856', 'TR37387258313545667124286', '349528235713651', '9886', '974', '05/19/23');

Output			
Action Output			
#	Time	Action	Message
270	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4821', 'LT253147505686466784', '453987 7873842836', '90... 1 row(s) affected
271	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4828', 'BG11LHJ30149367569464', '4485252735942', '2789... 1 row(s) affected
272	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4835', 'PT34592171131763200132583', '3723 677744 2255... 1 row(s) affected
273	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4842', 'SA2156708581957118818229', '3774 636724 83250... 1 row(s) affected
274	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4849', 'SE2813123487163628531121', '522363813491514... 1 row(s) affected
275	09:40:09	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES (	'CcU-4856', 'TR37387258313545667124286', '34952823571365... 1 row(s) affected

- Creacion de la clave foranea para conectar con la tabla "transaction"



- Diagrama donde se muestra la nueva relacion creada



- En el diagrama se ven las relaciones entre las siguientes tablas:

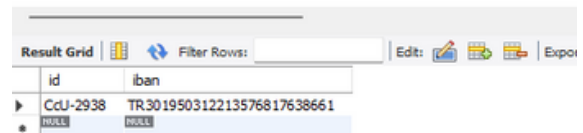
1- La tabla "transaction" tiene relaciones de muchos a uno con la tabla "credit\_card" a través de credit\_card\_id  
2- La tabla "transaction" tiene relaciones de muchos a uno con la tabla "company" a través de company\_id.  
Esto significa que muchas transacciones pueden estar asociadas a una misma tarjeta de crédito y a una misma compañía.

## Ejercicio 2

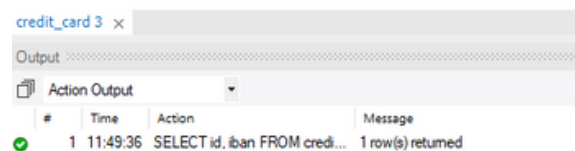
El departamento de Recursos Humanos ha identificado un error en el número de cuenta del usuario con ID CcU-2938. La información que debe mostrarse para este registro es: R323456312213576817699999. Recuerda mostrar que el cambio se realizó.

Consulta para verificar el error en el dato a modificar:

```
7 • SELECT id, iban
8 FROM credit_card
9 WHERE id = 'CcU-2938';
```



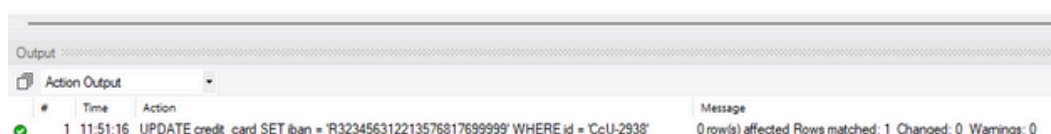
Result Grid		Filter Rows:	Edit:	Export
id	iban			
CcU-2938	TR301950312213576817638661			
* NULL	NULL			



#	Time	Action	Message
1	11:49:36	SELECT id, iban FROM credi...	1 row(s) returned

Realizo la actualizacion del dato solicitado por RRHH:

```
7 • UPDATE credit_card
8 SET iban = 'R323456312213576817699999'
9 WHERE id = 'CcU-2938';
10
11
```



#	Time	Action	Message
1	11:51:16	UPDATE credit_card SET iban = 'R323456312213576817699999' WHERE id = 'CcU-2938'	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0

Consulta nuevamente del id para confirmar la actualizacion:

```
11 • SELECT id, iban
12 FROM credit_card
13 WHERE id = 'CcU-2938';
```

Result Grid	
id	iban
CcU-2938	R323456312213576817699999

```
credit_card 4 x
Output
Action Output
# Time Action Message
1 11:51:16 UPDATE credit_card SET iban = 'R323456312213576817699999' WHERE id = 'CcU-2938' 0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0
2 11:51:48 SELECT id, iban FROM credit_card WHERE id = 'CcU-2938' LIMIT 0, 1000 1 row(s) returned
```

### Ejercicio 3

En la tabla "transaction" ingresa un nuevo usuario con la siguiente información:

- Id 108B1D1D-5B23-A76C-55EF-C568E49A99DD
- credit\_card\_id CcU-9999
- company\_id b-9999
- user\_id 9999
- lato 829.999
- longitud -117.999
- amunt 111.11
- declined 0

Como el usuario 'b-9999' no existe en la tabla company, me da error al querer cargarlo directamente en la tabla "transaction", debido a una restricción de clave foránea. Así que primero creare el usuario en la tabla company y luego procedere a cargar los datos correspondientes en la tabla transaction.

```
15 • INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, declined ) VALUES ('108B1D1D-5B23-A76C-55EF-C568E49A99DD', 'CcU-9999', 'b-9999', '9999', '829.999', '-117.999', '111.11', '0');
16
17 • SELECT *
18 FROM transaction
19 WHERE id = 'CcU-9999';
20
21 • SELECT * FROM company WHERE id = 'b-9999';
22
```

Result Grid

Filter Rows

1

Edit

Export/Import

Wrap Cell Contents

id	company_name	phone	email	country	website
1	1	1	1	1	1

company 7					Apply	8
Output						
Action Output						
#	Time	Action	Message	Duration / Pct		
1	12:16:39	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, decli...	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (transactions.transaction, CONSTRAINT transaction_bfk_1 FOREIGN KEY (company_id) REFERENCES compa...	0.000 sec		
2	12:16:44	SELECT * FROM company WHERE id = 'b-9999' LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0		

Creacion del usuario 'b-9999' en la tabla company.

```
21 • SELECT * FROM company WHERE id = 'b-9999';
22
23 • INSERT INTO company (id) VALUES ('b-9999');
24
```

id	company_name	phone	email	country	website
b-9999	NULL	NULL	NULL	NULL	NULL
NULL	NULL	NULL	NULL	NULL	NULL

company 8 x

Output

#	Time	Action	Message
✓ 1	12:19:56	SELECT * FROM transactions.company LIMIT 0, 1000	100 row(s) returned
✓ 2	12:20:31	INSERT INTO company (id) VALUES (b-9999)	1 row(s) affected
✓ 3	12:21:01	SELECT * FROM company WHERE id = b-9999' LIMIT 0, 1000	1 row(s) returned

Creacion del usuario 'CcU-9999' en la tabla credit\_card.

```
24 • INSERT INTO credit_card (id) VALUES ('CcU-9999');
```

Output

#	Time	Action	Message
✗ 1	12:24:22	INSERT INTO transaction (id, credit_card_id, user_id, lat, longitude, amount, declined) VALUES ...	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (transacti...
✓ 2	12:27:08	INSERT INTO credit_card (id) VALUES (CcU-9999)	1 row(s) affected
✗ 3	12:27:12	INSERT INTO credit_card (id) VALUES (CcU-9999)	Error Code: 1062. Duplicate entry 'CcU-9999' for key 'credit_card.PRIMARY'

Carga de datos en la tabla transaction

```
15 • INSERT INTO transaction (id, user_id, lat, longitude, amount, declined) VALUES ('1088101D-5823-A76C-55EF-C568E49A9900', '9999', '829.999', '-117.999', '111.11', '0');
16
17
```

Output

#	Time	Action	Message
✓ 1	12:32:41	INSERT INTO transaction (id, user_id, lat, longitude, amount, declined) VALUES (1088101D-5...	1 row(s) affected

Comprobamos que se hayan ingresado correctamente

```
4 WHERE id = 'b-9999';
5
6 • SELECT *
7 FROM credit_card
8 WHERE id = 'CcU-9999';
9
10 -- Al no existir deben agregarse los valores primero en el tablas donde estan como Primary Key
11 • INSERT INTO credit_card (id) VALUES ('CcU-9999');
12 • INSERT INTO company (id) VALUES ('b-9999');
13
14 -- Luego de insertar los ID en las tablas company y credit_card procedemos a insertar los valores en
15 • INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, declined )
16
17 • SELECT *
18 FROM transaction
19 WHERE id = '108B1D1D-5B23-A76C-55EF-C568E49A99DD';
```

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	111.11	0	0

transaction 5 x

Output

Action Output

#	Time	Action	Message
1	17:13:12	SELECT * FROM transaction WHERE id = '108B1D1D-5B23-A76C-55EF-C568E49A99DD' LIMIT...	1 row(s) returned

#### Ejercicio 4

Desde recursos humanos te solicitan eliminar la columna "pan" de la tabla credit\_card. Recuerda mostrar el cambio realizado.

Antes de eliminar la columna "pan"

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

id	iban	pan	pin	cvv	expiring_date
CcU-2938	R323456312213576817699999	5424465566813633	3257	984	10/30/22
CcU-2945	DO26854763748537475216568689	5142423821948828	9080	887	08/24/23
CcU-2952	BG451VQL52710525608255	4556 453 55 5287	4598	438	06/29/21
CcU-2959	CR7242477244335841535	372461377349375	3583	667	02/24/23
CcU-2966	BG72LKTQ15627628377363	448566 886747 7265	4900	130	10/29/24
CcU-2973	PT87806228135092429456346	544 58654 54343 384	8760	887	01/30/25
CcU-2980	DE39241881883086277136	402400 7145845969	5075	596	07/24/22
CcU-2987	GE89681434837748781813	3763 747687 76666	2298	797	10/31/23
CcU-2994	BH62714428368066765294	344283273252593	7545	595	02/28/22
CcU-3001	CY49087426654774581266832110	511722 924833 2244	9562	867	09/16/22
CcU-3008	LU507216693616119230	4485744464433884	1856	740	04/05/25
CcU-3015	PS119398216295715968342456821	3784 662233 17389	3246	822	01/31/22
CcU-3022	GT91695162850556977423121857	5164 1379 4842 3951	5610	342	04/25/25

credit\_card 2 x

Output

Action Output

#	Time	Action	Message
1	17:16:04	SELECT * FROM transactions.credit_card LIMIT 0, 1000	276 row(s) returned

Elimino la columna "pan"

```
1 • SELECT * FROM transactions.credit_card;
2
3 -- Eliminacion de la columna "pan"
4 • ALTER TABLE credit_card
5 DROP COLUMN pan;
```

Output			
Action Output			
#	Time	Action	Message
✓ 1	17:16:04	SELECT * FROM transactions.credit_card LIMIT 0, 1000	276 row(s) returned
✓ 2	17:18:18	ALTER TABLE credit_card DROP COLUMN pan	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

Compruebo la eliminicaion de la columna "pan"

```
1 • SELECT * FROM transactions.credit_card;
2
3 -- Eliminacion de la columna "pan"
4 • ALTER TABLE credit_card
5 DROP COLUMN pan;
6
7
```

Result Grid					
Filter Rows:					
Edit: Export/Import: Wrap Cell Content:					
	id	iban	pin	cvv	expiring_date
▶	CcU-2938	R323456312213576817699999	3257	984	10/30/22
	CcU-2945	DO26854763748537475216568689	9080	887	08/24/23
	CcU-2952	BG45IVQL52710525608255	4598	438	06/29/21
	CcU-2959	CR7242477244335841535	3583	667	02/24/23
	CcU-2966	BG72LKTQ15627628377363	4900	130	10/29/24
	CcU-2973	PT87806228135092429456346	8760	887	01/30/25
	CcU-2980	DE39241881883086277136	5075	596	07/24/22
	CcU-2987	GE89681434837748781813	2298	797	10/31/23
	CcU-2994	BH62714428368066765294	7545	595	02/28/22
	CcU-3001	CY49087426654774581266832110	9562	867	09/16/22
	CcU-3008	LU507216693616119230	1856	740	04/05/25
	CcU-3015	PS119398216295715968342456821	3246	822	01/31/22
	CcU-3022	GT91695162850556977423121857	5610	342	04/25/25
credit_card 3 x					
Output					
Action Output					
#	Time	Action	Message		
✓ 1	17:19:13	SELECT * FROM transactions.credit_card LIMIT 0, 1000	276 row(s) returned		