



## Sprint 4 - Nivel 1

Descarga los archivos CSV, estudiales y diseña una base de datos con un esquema de estrella que contenga, al menos 4 tablas

### Nueva Base de datos:

The screenshot shows the MySQL Workbench interface with the 'user' tab selected. The SQL editor contains the following commands:

```
1 • CREATE SCHEMA `nueva_db`;  
2 • USE nueva_db;  
3
```

The Output window shows the results of these commands:

#	Time	Action	Message
✓ 1	11:07:04	CREATE SCHEMA `nueva_db`	1 row(s) affected
✓ 2	11:07:06	USE nueva_db	0 row(s) affected

### Creo la tabla transactions (Fact table)

The screenshot shows the MySQL Workbench interface with the SQL editor containing the following commands:

```
21 • CREATE TABLE IF NOT EXISTS transactions(  
22   id VARCHAR(50) PRIMARY KEY,  
23   card_id VARCHAR(20),  
24   business_id VARCHAR(20),  
25   timestamp TIMESTAMP,  
26   amount DECIMAL(10,2),  
27   declined TINYINT,  
28   product_id_1 VARCHAR(20),  
29   user_id INT,  
30   lat VARCHAR(100),  
31   longitude VARCHAR(100));  
32
```

The Output window shows the results of the first command:

#	Time	Action	Message
✓ 1	19:34:57	CREATE TABLE IF NOT EXISTS transactions(idVARCHAR(50) PRIMARY KEY, card_idVARCHAR(20), business_idVARCHAR(20), timestamp TIMES...	0 row(s) affected

Below this, the SQL editor contains the following commands:

```
37 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv'  
38 INTO TABLE transactions  
39 FIELDS TERMINATED BY ';'   
40 LINES TERMINATED BY '\n'  
41 IGNORE 1 ROWS;
```

The Output window shows the results of the second command:

#	Time	Action	Message
✓ 1	19:36:23	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv' INTO TABLE transactions FIELDS TERMINATE...	587 row(s) affected Records: 587 Deleted: 0 Skipped: 0 Warnings: 0

Result Grid		Filter Rows:			Export/Import:		Wrap Cell Content:			
	id	card_id	business_id	timestamp	amount	declined	product_id_1	user_id	lat	longitude
	02C6201E-D90A-1859-B4EE-88D2986D3802	CdU-2938	b-2362	2021-08-28 23:42:24	466.92	0	71, 1, 19	92	81.9184589824	-12.5275561984
	0466A42E-47CF-8D24-FD01-C0B689713128	CdU-4219	b-2302	2021-07-26 07:29:18	49.53	0	47, 97, 43	170	-43.9694885888	-117.5251835904
	063FBA79-99EC-66FB-29F7-25726D1764A5	CdU-2987	b-2250	2022-01-06 21:25:27	92.61	0	47, 67, 31, 5	275	-81.222680576	-129.049879552
	0668296C-CD89-A883-76BC-2E4C44F8C8AE	CdU-3743	b-2618	2022-01-26 02:07:14	394.18	0	89, 83, 79	265	-34.3593055232	-100.555928064
	06CD9AA5-9842-D684-DDDD-A5E394FEBAA9	CdU-2959	b-2346	2021-10-26 23:00:01	279.93	0	43, 31	92	33.7381445632	158.298210304
	07A46D48-31A3-7E87-65B9-0A90A2D109F	CdU-3225	b-2386	2021-06-28 21:11:42	340.87	1	47, 23	272	38.8341526528	92.190545408
	090E92CE-6F27-2B87-13B5-9385B2B38E2	CdU-3071	b-2298	2021-05-11 20:40:06	303.05	1	67, 7	275	71.1705612288	10.5765752896
	0A476ED9-0C13-1962-F87B-03563924B539	CdU-4359	b-2302	2022-02-26 20:33:54	430.49	0	29, 41, 11	221	-56.490077696	114.8012315648
	08EB80B7-9D06-1707-CE48-90C7E71914B5	CdU-3141	b-2338	2022-03-04 14:54:35	288.81	1	19, 41, 29, 3	272	23.3264027648	-13.6036868096
	0C7CA333-9947-38C1-8460-7BE3D0D17598	CdU-3309	b-2434	2021-04-10 20:58:41	103.44	1	89, 31	272	63.3614763008	-68.6666633216
	0CE957A6-CCAA-2B7A-6839-8A4B1B324853	CdU-3435	b-2506	2022-02-02 07:29:36	428.69	1	83, 43, 73, 61	269	-69.3537422336	-10.2600429568
	0DD2E608-5C9E-D1B3-4999-B99F43AD735A	CdU-2959	b-2234	2021-04-17 05:30:17	252.47	1	7, 47, 17	275	9.6881091584	130.282389504
	1017AA59-3D9F-7A4C-1992-D151A8D1FA0A	CdU-3701	b-2618	2021-11-01 01:02:11	447.11	0	37, 13	267	4.276451328	-101.5540074496
	1026DA24-8929-31F1-825D-D7BAB03C1D02	CdU-2959	b-2346	2021-12-07 09:30:38	465.31	0	89, 11, 97, 79	92	32.064566272	-140.1465445376
	10881D10-5B23-A76C-55EF-C568E49A05DD	CdU-2938	b-2222	2021-07-07 17:43:16	293.57	0	59, 17	275	83.7839152128	-178.860353536
	10A9B07A-810C-76EB-4D15-12C6GC128037	CdU-3155	b-2346	2021-05-16 21:00:28	27.85	1	43, 83	272	-32.0556372992	-76.728060928
	11ABED97-EA12-1B9A-96FA-A93ACC172179	CdU-3981	b-2362	2021-07-14 20:55:48	157.20	0	29, 68	68	-78.840203244	8.7618164736
	1279B33F-10FE-D670-FD08-0E54CE1E8BA9	CdU-4356	b-2302	2021-06-09 06:04:14	177.01	0	1, 67, 10	271	20.4377325312	-166.1728714752

transactions 1 x

Output

Action Output

#

Time

Action

1

19:36:23

LOAD DATA LOCAL INFILE 'C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\transactions.csv' INTO TABLE transactions FIELDS TERMINAT...

2

19:37:38

SELECT \* FROM nueva\_db.transactions LIMIT 0, 1000

Message

587 row(s) affected Records: 587 Deleted: 0 Skipped: 0 Warnings: 0

587 row(s) returned

```
4      -- tabla companies
5      • CREATE TABLE IF NOT EXISTS companies(
6          company_id VARCHAR(50) PRIMARY KEY,
7          company_name VARCHAR(100),
8          phone VARCHAR(30),
9          email VARCHAR(50),
10         country VARCHAR(100),
11         website VARCHAR(100)
12     );
```

Output

📄

Action Output

▼

#	Time	Action	Message
1	12:33:11	CREATE TABLE IF NOT EXISTS companies( company_id VARCHAR(50) PRIMARY KEY, compan...	0 row(s) affected

13

14 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/companies.csv'

15 INTO TABLE companies

16 FIELDS TERMINATED BY ','

17 LINES TERMINATED BY '\n'

18 IGNORE 1 ROWS;

Output

📄

Action Output

▼

#	Time	Action	Message
1	12:33:11	CREATE TABLE IF NOT EXISTS companies( company_id VARCHAR(50) PRIMARY KEY, compan...	0 row(s) affected
2	12:33:45	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/companies.csv'...	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0

20 • `SELECT * FROM nueva_db.companies;`

company_id	company_name	phone	email	country	website
b-2222	Ac Fermentum Incorporated	06 85 56 52 33	donec.porttitor.tellus@yahoo.net	Germany	https://instagram.com/site
b-2226	Magna A Neque Industries	04 14 44 64 62	risus.donec.nibh@icloud.org	Australia	https://whatsapp.com/group/9
b-2230	Fusce Corp.	08 14 97 58 85	risus@protonmail.edu	United States	https://pinterest.com/sub/cars
b-2234	Convallis In Incorporated	06 66 57 29 50	mauris.ut@aol.couk	Germany	https://cnn.com/user/110
b-2238	Ante Iaculis Nec Foundation	08 23 04 99 53	sed.dictum.proin@outlook.ca	New Zealand	https://netflix.com/settings
b-2242	Donec Ltd	01 25 51 37 37	at.iaculis@hotmail.couk	Norway	https://nytimes.com/user/110
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnn.com/one
b-2250	Amet Nulla Donec Corporation	07 15 25 14 74	mattis.intener.eu@protonmail.net	Italy	https://netflix.com/sub/cars

companies 3 x

Output

Action Output

#	Time	Action	Message
1	12:34:26	SELECT * FROM nueva_db.companies LIMIT 0, 1000	100 row(s) returned

## Creo la tabla credit\_cards (Dimension table)

```
4  -- Tabla credit_card
5  • CREATE TABLE IF NOT EXISTS credit_cards (
6      id VARCHAR(20) PRIMARY KEY,
7      user_id INT,
8      Iban VARCHAR(50),
9      pan VARCHAR(50),
10     pin VARCHAR(4),
11     cvv VARCHAR(3),
12     Track1 VARCHAR(100),
13     Track2 VARCHAR(100),
14     expiring_date VARCHAR(50)
15 );
```

#	Time	Action	Message
1	12:26:15	CREATE TABLE IF NOT EXISTS credit_cards (id VARCHAR(20) PRIMARY KEY, user_id INT, Iba...	0 row(s) affected

```
17 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.csv'
18 INTO TABLE credit_cards
19 FIELDS TERMINATED BY ','
20 LINES TERMINATED BY '\n'
21 IGNORE 1 ROWS;
```

#	Time	Action	Message
1	12:27:07	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.cs...	275 row(s) affected Records: 275 Deleted: 0 Skipped: 0 Warnings: 0

25 • `SELECT * FROM nueva_db.credit_cards;`

Result Grid									
Filter Rows:			Edit:		Export/Import:		Wrap Cell Content:		
	id	user_id	Iban	pan	pin	cvv	Track1	Track2	expiring_date
▶	CcU-2938	275	TR30195031221357681763...	5424465566813633	3257	984	%B8383712448554646^WovsxjeDpwiev^8604...	%B7653863056044187=800716333673	10/30/22
	CcU-2945	274	DO26854763748537475216...	5142423821948828	9080	887	%B4621311609958661^UftuyfsSeimxn^06106...	%B4149568437843501=510714033071	08/24/23
	CcU-2952	273	BG45IVQL52710525608255	4556 453 55 5287	4598	438	%B2183285104307501^CddyttLxwfdq^5907...	%B6778580257827162=6906859740077	06/29/21
	CcU-2959	272	CR7242477244335841535	372461377349375	3583	667	%B7281111956795320^XocddjBckecd^09016...	%B4246154489281853=280522391678	02/24/23
	CcU-2966	271	BG72LKTQ15627628377363	448566 886747 7265	4900	130	%B4728932322756223^JhlgvsuFbmwgi^7202...	%B2318571115599881=890821578475	10/29/24
	CcU-2973	270	PT87806228135092429456346	544 58654 54343 384	8760	887	%B4761405253275637^HjnnipoBlejri^7108515...	%B7816169831446746=1310277279	01/30/25
	CcU-2980	269	DE39241881883086277136	402400 7145845969	5075	596	%B7320483593870549^OokzqxHpsed^4901...	%B2474313962214151=041221913175	07/24/22
	CcU-2987	268	GE89681434837748781813	3763 747687 76666	2298	797	%B4750646345146674^PjmlyrfGwwtrf^83051...	%B5441935173418615=410370453677	10/31/23
	CcU-2994	267	BH62714428368066765294	344283273252593	7545	595	%B1583759784015674^GmqoyhtLtoqrn^2507...	%B4141467473024349=6506800955074	02/28/22
	CcU-3001	266	CY49087426654774581266...	511722 924833 2244	9562	867	%B6227288756728648^AwxilfcFmgvdy^2808...	%B3429355750963453=530526830573	09/16/22
	CcU-3008	265	LU507216693616119230	4485744464433884	1856	740	%B7182449430529226^MkoutyhTfdvpo^1708...	%B6235123731781366=940563816678	04/05/25
	CcU-3015	264	PS119398216295715968342...	3784 662233 17389	3246	822	%B5776250106724742^QvvzkrCwrovrm^530...	%B3561372148267521=190547316677	01/31/22
	CcU-3022	263	GT91695162850556977423...	5164 1379 4842 3951	5610	342	%B8456627214332875^XmwzhenXwxht^050...	%B7761154174374063=230423342944	04/25/25

credit\_cards 4 x

Output

Action Output

#	Time	Action	Message
✓	12:27:07	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.c...	275 row(s) affected Records: 275 Deleted: 0 Skipped: 0 Warnings: 0
✓	12:27:44	SELECT * FROM nueva_db.credit_cards LIMIT 0, 1000	275 row(s) returned

## Creo la tabla products (Dimension table)

```

5
6 -- Tabla product
7 • CREATE TABLE IF NOT EXISTS products (
8   id VARCHAR(100) PRIMARY KEY,
9   product_name VARCHAR(100),
10  price DECIMAL(10,2),
11  colour VARCHAR(20),
12  weight DECIMAL(10,2),
13  warehouse_id VARCHAR(100)
14 );

```

Output			
Action Output			
#	Time	Action	Message
1	12:16:21	CREATE TABLE IF NOT EXISTS products (id VARCHAR(100) PRIMARY KEY, product_name VA...	0 row(s) affected

```

16 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/products.csv'
17 INTO TABLE products
18 FIELDS TERMINATED BY ','
19 LINES TERMINATED BY '\n'
20 IGNORE 1 ROWS
21 (@id, @product_name, @price, @colour, @weight, @warehouse_id)
22 SET id = @id,
23     product_name = @product_name,
24     price = REPLACE(TRIM(@price), '$', ''),
25     colour = @colour,
26     weight = @weight,
27     warehouse_id = @warehouse_id;
28
29
30

```

Output			
Action Output			
#	Time	Action	Message
1	12:17:17	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/products.csv' I...	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0

```

1 • SELECT * FROM nueva_db.products;
2
3
4
5

```

Result Grid						
Filter Rows:						
Edit: Export/Import: Wrap Cell Content:						
	id	product_name	price	colour	weight	warehouse_id
▶	1	Direwolf Stannis	161.11	#7c7c7c	1.00	WH-4
	10	Karstark Dorne	119.52	#f4f4f4	2.40	WH-5
	100	south duel	40.43	#6d6d6d	3.00	WH-95
	11	Karstark Dorne	49.70	#141414	2.70	WH-6
	12	duel Direwolf	181.60	#a8a8a8	2.10	WH-7
	13	palpatine chewbacca	139.59	#2b2b2b	1.00	WH-8
	14	Direwolf	147.53	#c4c4c4	2.00	WH-9
	15	Stannis warden	194.29	#dbdbdb	1.50	WH-10
	16	the duel warden	180.91	#666666	3.00	WH-11
	17	skywalker ewok sith	91.89	#7c7c7c	3.20	WH-12
	18	Karstark warden	148.91	#c4c4c4	0.80	WH-13
	100	darkstark	50.22	#2f2f2f	0.80	WH-14

products 4 x

Output

Action Output

#	Time	Action	Message
✓ 1	12:17:17	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/products.csv' L...	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0
✓ 2	12:17:46	SELECT * FROM nueva_db.products LIMIT 0, 1000	100 row(s) returned

## Creo la tabla users (Dimension table)

```

4 • CREATE TABLE IF NOT EXISTS users (
5     id INT PRIMARY KEY,
6     name VARCHAR(50),
7     surname VARCHAR(50),
8     phone VARCHAR(30),
9     email VARCHAR(50),
10    birth_date VARCHAR(50),
11    country VARCHAR(50),
12    city VARCHAR(50),
13    post_code VARCHAR(50),
14    address VARCHAR(200));
15

```

Output			
Action Output			
#	Time	Action	Message
✓ 1	20:02:18	CREATE TABLE IF NOT EXISTS users (id INT PRIMARY KEY, name VARCHAR(50), surname VARCHAR(50), phone VARCHAR(30), email VARCHAR(50), birth_date VARCHAR(50), country VARCHAR(50), city VARCHAR(50), post_code VARCHAR(50), address VARCHAR(200));	0 row(s) affected

```

17 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_ca.csv'
18 INTO TABLE users
19 FIELDS TERMINATED BY ';'
20 ENCLOSED BY '"'
21 LINES TERMINATED BY '\n'
22 IGNORE 1 LINES;
23

```

Output			
Action Output			
#	Time	Action	Message
✓ 1	20:03:16	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_ca.csv' INTO TABLE users FIELDS TERMINATED BY ';' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;	75 row(s) affected Records: 75 Deleted: 0 Skipped: 0 Warnings: 0

```

17 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_usa.csv'
18 INTO TABLE users
19 FIELDS TERMINATED BY ';'
20 ENCLOSED BY '"'
21 LINES TERMINATED BY '\n'
22 IGNORE 1 LINES;
23

```

Output			
Action Output			
#	Time	Action	Message
✓ 1	20:04:10	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_usa.csv' INTO TABLE users FIELDS TERMINATED BY ';' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;	150 row(s) affected Records: 150 Deleted: 0 Skipped: 0 Warnings: 0

```

31 • LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_uk.csv'
32 INTO TABLE users
33 FIELDS TERMINATED BY ','
34 ENCLOSED BY '"'
35 LINES TERMINATED BY '\n'
36 IGNORE 1 LINES;
37

```

#### Output

#	Time	Action	Message
1	20:05:22	LOAD DATA LOCAL INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/users_uk.csv' INTO TABLE users FIELDS TERMINATED BY ',' E...	50 row(s) affected Records: 50 Deleted: 0 Skipped: 0 Warnings: 0

```

1 • SELECT * FROM nueva_db.users;
2
3
4 • CREATE TABLE IF NOT EXISTS users (
5   id INT PRIMARY KEY,
6   name VARCHAR(50),
7   surname VARCHAR(50),
8   phone VARCHAR(20);

```

#	id	name	surname	phone	email	birth_date	country	city	post_code	address
4	Howard	Stafford	1-411-740-3269	omare.egestas@idoud.edu	Feb 18, 1989	United States	Kailua	77417	Ap #545-2244	Erat. Rd.
5	Hayfa	Pierce	1-554-541-2077	et.malesuada.fames@hotmail.org	Sep 26, 1998	United States	Sandy	31564	341-2821	Ultrices Av.
6	Joel	Tyson	(718) 288-8020	gravida.nunc.sed@yahoo.ca	Oct 15, 1989	United States	Nashville	96838	888-2799	Amet Street
7	Rafael	Jimenez	(817) 689-0478	eget@outlook.ca	Dec 4, 1981	United States	Hillsboro	29874	8627	Malesuada Rd.
8	Nissim	Franks	(692) 157-3469	egestas.aliquam.fringilla@google.ca	Aug 1, 1993	United States	Jackson	61750	Ap #251-7144	Integer St.
9	Mannix	Mcclain	(590) 883-2184	aliquam.nisl@outlook.com	Jan 24, 1987	United States	Richmond	35987	647-3080	Lacus. St.
10	Robert	Mccarthy	(324) 746-6771	fermentum@protonmail.com	Apr 30, 1984	United States	Eugene	85526	P.O. Box 773,	3594 Omare St.
11	Joan	Baird	(981) 429-8106	et@outlook.net	Feb 25, 1990	United States	Lincoln	35211	P.O. Box 687,	8917 Ligula St.
12	Benedict	Wheeler	1-515-824-2855	tincidunt.donec.vitae@hotmail.couk	Aug 6, 1999	United States	Lewiston	92393	748-8694	Porttitor Avenue
13	Allegra	Stanton	1-927-753-6488	proin.eget@protonmail.ca	May 19, 1990	United States	Kearney	14947	4457	Ante. Av.

users 14 x

#### Output

#	Time	Action	Message
1	20:07:49	SELECT * FROM nueva_db.users LIMIT 0, 1000	275 row(s) returned

## Creo las Foreign Key para relacionar las tablas

```

111 -- Claves Foraneas
112 • ALTER TABLE transactions
113 ADD CONSTRAINT fk_companies_id
114 FOREIGN KEY (business_id) REFERENCES companies(company_id);
115
116 • ALTER TABLE transactions
117 ADD CONSTRAINT fk_credit_cards_id
118 FOREIGN KEY (card_id) REFERENCES credit_cards(id);
119

```

#### Output

#	Time	Action	Message	Duration / Fetch
1	12:37:05	ALTER TABLE transactions ADD CONSTRAINT fk_companies_id FOREIGN KEY (business_id) REFERENCE...	587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0	0.109 sec
2	12:37:10	ALTER TABLE transactions ADD CONSTRAINT fk_credit_cards_id FOREIGN KEY (card_id) REFERENCES c...	587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0	0.110 sec

```

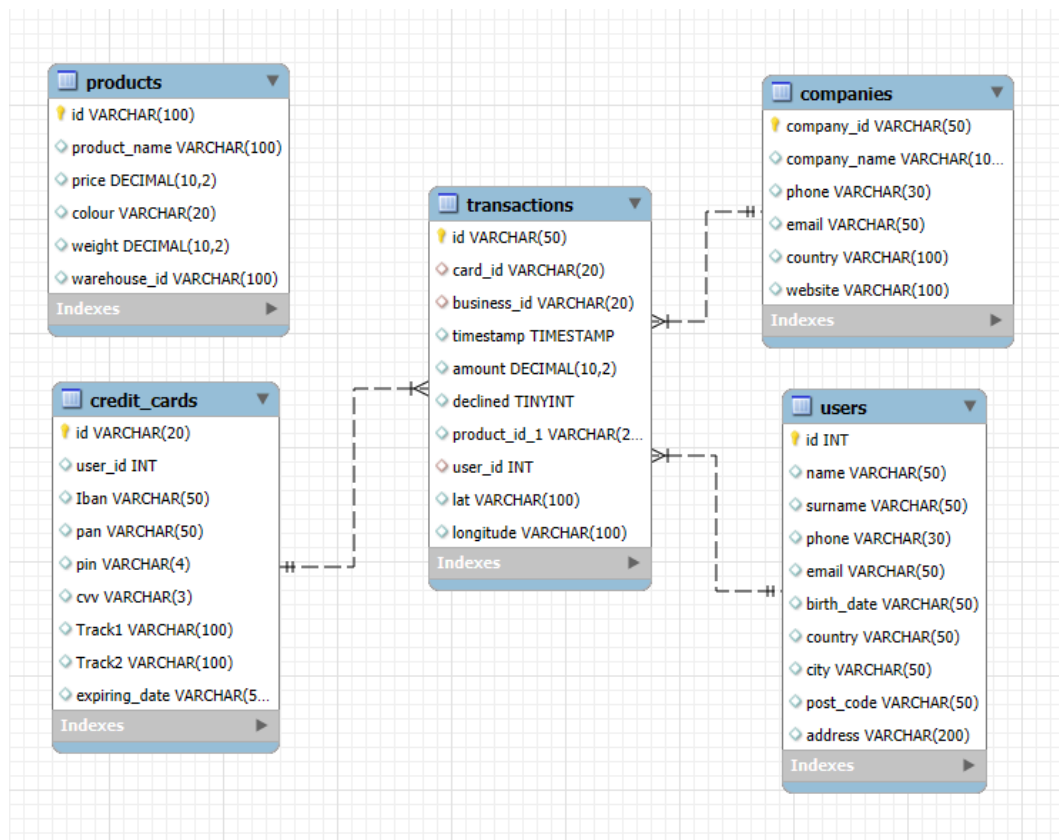
120 • ALTER TABLE transactions
121 ADD CONSTRAINT fk_users_id
122 FOREIGN KEY (user_id) REFERENCES users(id);
123

```

#### Output

#	Time	Action	Message
1	12:50:58	ALTER TABLE transactions ADD CONSTRAINT fk_users_id FOREIGN KEY (user_id) REFERENCES users(id)	587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0

**Diagrama luego de las conexiones realizadas (1:N) con la tabla transactions.**  
 La tabla products por ahora no se realiza conexion ya que se hará más adelante.



## Ejercicio 1

Realiza una subconsulta que muestre a todos los usuarios con más de 30 transacciones utilizando al menos 2 tablas.

```

51  -- Usuarios con mas de 30 transacciones
52  • SELECT id, name, surname
53  FROM users
54  WHERE id IN (
55      SELECT transactions.user_id
56      FROM transactions
57      WHERE declined = 0
58      GROUP BY transactions.user_id
59      HAVING COUNT(transactions.id) > 30
60  );
61
  
```

id	name	surname
92	Lynn	Riddle
267	Ocean	Nelson
272	Hedwig	Gilbert
NULL	NULL	NULL

users 1 x Apply Revert

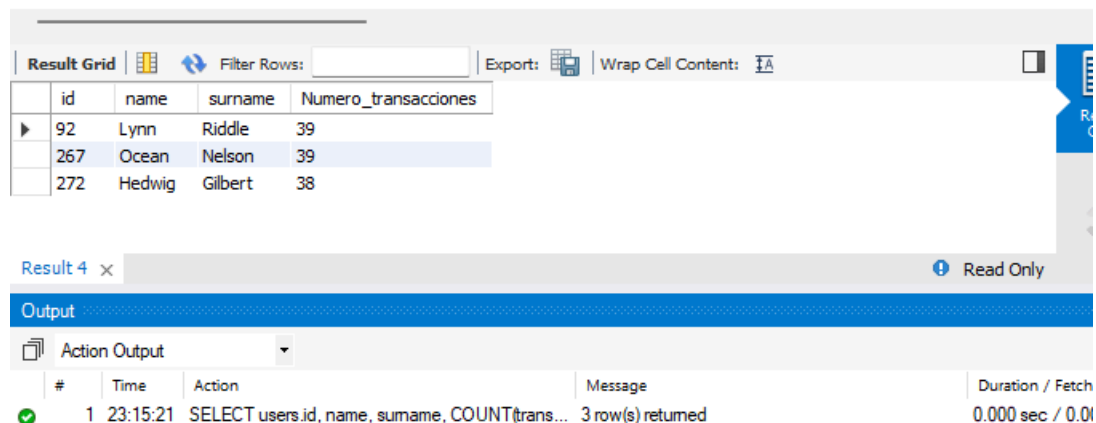
Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	23:05:36	SELECT id, name, surname FROM users WHE...	3 row(s) returned	0.000 sec / 0.000 sec

subconsulta que muestre a todos los usuarios con más de 30 transacciones utilizando al menos 2 tablas usando JOIN

```
62 -- Opcion con JOIN
63 • SELECT users.id, name, surname, COUNT(transactions.id) as Numero_transacciones
64 FROM users
65 JOIN transactions ON users.id = transactions.user_id
66 WHERE transactions.declined = 0
67 GROUP BY users.id, name, surname
68 HAVING COUNT(transactions.id) > 30
69 ORDER BY Numero_transacciones DESC;
```



	id	name	surname	Numero_transacciones
▶	92	Lynn	Riddle	39
	267	Ocean	Nelson	39
	272	Hedwig	Gilbert	38

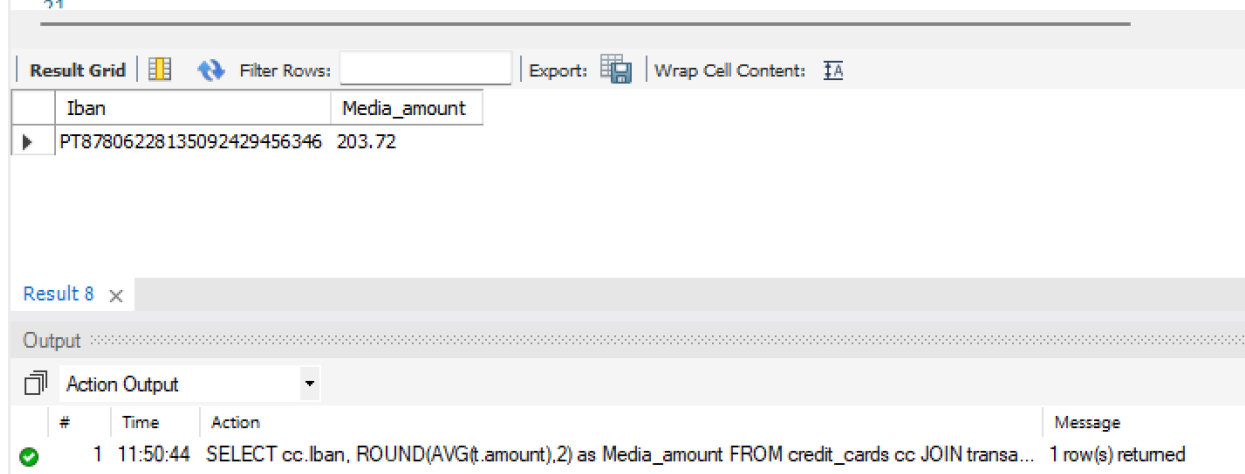
  

#	Time	Action	Message	Duration / Fetch
✓ 1	23:15:21	SELECT users.id, name, surname, COUNT(trans...	3 row(s) returned	0.000 sec / 0.01

## Ejercicio 2

Muestra la media de amount por IBAN de las tarjetas de crédito en la compañía Donec Ltd., utiliza por lo menos 2 tablas.

```
14 -- Compania Donec LTD
15 • SELECT cc.Iban, ROUND(AVG(t.amount),2) as Media_amount
16 FROM credit_cards cc
17 JOIN transactions t ON cc.id = t.card_id
18 JOIN companies c ON t.business_id = c.company_id
19 WHERE c.company_name = 'Donec Ltd'
20 GROUP BY cc.Iban;
```



	Iban	Media_amount
▶	PT87806228135092429456346	203.72

#	Time	Action	Message
✓ 1	11:50:44	SELECT cc.Iban, ROUND(AVG(t.amount),2) as Media_amount FROM credit_cards cc JOIN transa...	1 row(s) returned





## Sprint 4 - Nivel 2

Crea una nueva tabla que refleje el estado de las tarjetas de crédito basado en si las últimas tres transacciones fueron declinadas y genera la siguiente consulta:  
¿Cuántas tarjetas están activas?

Creo la tabla y Foreign key:

```
3 • CREATE TABLE credit_card_status (  
4     card_id VARCHAR(20) PRIMARY KEY,  
5     status BOOLEAN,  
6     FOREIGN KEY (card_id) REFERENCES credit_cards(id));  
7
```

Output

Action Output

#	Time	Action	Message
✓ 1	12:21:41	CREATE TABLE credit_card_status ( card_id VARCHAR(20) PRIMARY KEY, status BOOLEA...	0 row(s) affected

Inserto los valores:

```
8 • INSERT INTO credit_card_status (card_id, status)  
9     SELECT t.card_id,  
10    CASE  
11        WHEN SUM(t.declined) >= 3 THEN 0  
12        ELSE 1  
13    END AS status  
14    FROM ( SELECT t.card_id, t.declined,  
15            ROW_NUMBER() OVER (PARTITION BY t.card_id ORDER BY t.timestamp DESC) AS fila  
16          FROM transactions t  
17        ) t  
18    WHERE t.fila <= 3  
19    GROUP BY t.card_id;
```

Output

Action Output

#	Time	Action	Message
✓ 1	12:23:00	INSERT INTO credit_card_status (card_id, status) SELECT t.card_id, CASE WHEN SUM(t....	275 row(s) affected Records: 275 Duplicates: 0 Warnings: 0

Decidi trabajar con booleano en la columna status donde "1 = Activa" y "0 = Declinada"

```
1 • SELECT * FROM nueva_db.credit_card_status;
```

Result Grid

card_id	status
CcU-2938	1
CcU-2945	1
CcU-2952	1
CcU-2959	1
CcU-2966	1
CcU-2973	1
CcU-2980	1
CcU-2987	1
CcU-2994	1
CcU-2999	1

credit\_card\_status 2 x

Output

Action Output

#	Time	Action	Message
✓ 1	12:25:24	SELECT * FROM nueva_db.credit_card_status LIMIT 0, 1000	275 row(s) returned

Cantidad de tarjetas de credito activas segun las ultimas 3 transacciones

```
21 • SELECT COUNT(*) AS Tarjetas_Activas
22 FROM credit_card_status
23 WHERE status = 1;
24
```

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

Tarjetas_Activas
275

Result 9 x

Output

Action Output

#	Time	Action	Message
✓ 1	12:24:49	SELECT COUNT(*) AS Tarjetas_Activas FROM credit_card_status WHERE status = 1 LIMIT 0, 10...	1 row(s) returned



## Sprint 4 - Nivel 3

Crea una tabla con la que podamos unir los datos del nuevo archivo products.csv con la base de datos creada, teniendo en cuenta que desde transaction tienes product\_ids. Genera la siguiente consulta:

### Ejercicio 1

Necesitamos conocer el número de veces que se ha vendido cada producto.

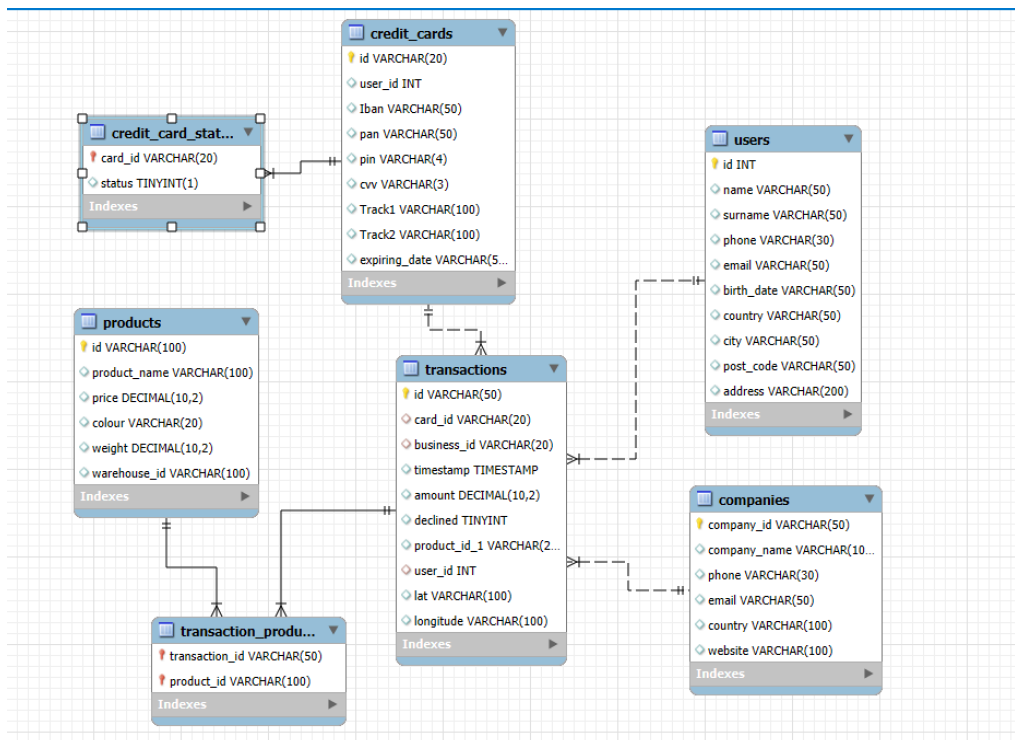
Para esto necesitamos crear una tabla intermedia con relacion de muchos a muchos

```
3 -- Creamos la tabla temporal
4 • CREATE TABLE transaction_products (
5     transaction_id VARCHAR(50),
6     product_id VARCHAR(100),
7     PRIMARY KEY (transaction_id, product_id),
8     FOREIGN KEY (transaction_id) REFERENCES transactions(id),
9     FOREIGN KEY (product_id) REFERENCES products(id)
10 );
11
```

Output

Action Output

#	Time	Action	Message
✓ 1	12:37:23	CREATE TABLE transaction_products ( transaction_id VARCHAR(50), product_id VARCHAR(...	0 row(s) affected



Insertamos los datos en la tabla “transaction\_products” separando los product\_id que estaban en una misma celda con ‘;’

```

12  -- Insertamos los datos
13  • INSERT INTO transaction_products (transaction_id, product_id)
14  SELECT t.id as transaction_id, p.id as product_id
15  FROM transactions t
16  JOIN products p ON FIND_IN_SET(CAST(p.id AS CHAR), REPLACE(t.product_id_1, ' ', '')) > 0;
17
18  -- Hacemos consulta de los datos
  
```

Output			
Action Output			
#	Time	Action	Message
✓ 1	12:43:47	INSERT INTO transaction_products (transaction_id, product_id) SELECT t.id as transaction_id, p.id ...	1457 row(s) affected Records: 1457 Duplicates: 0 Warnings: 0

```

21  -- Numero de veces que se ha vendido cada producto
22  • SELECT tp.product_id, p.product_name, COUNT(*) as Ventas_totales
23  FROM transaction_products tp
24  JOIN products p ON tp.product_id = p.id
  
```

Result Grid			
transaction_id	product_id		
063FBA79-99EC-66FB-29F7-25726D1764A5	67		
0CE957A6-CCAA-2B7A-6839-8A4B1B324853	61		
1575F87A-E37B-DADD-554C-A99D8E7162A6	61		
18C4E2DD-1E4C-F35E-2198-C660BD81DC25	61		
1A1279B1-B393-3EE4-6A2E-6D8F1256A49D	61		

transaction\_products2 x

Output			
Action Output			
#	Time	Action	Message
✓ 1	12:45:13	SELECT * FROM transaction_products LIMIT 0, 1000	1000 row(s) returned

## Numero de veces que se ha vendido cada producto

```
21  -- Numero de veces que se ha vendido cada producto
22  • SELECT tp.product_id, p.product_name, COUNT(*) as Ventas_totales
23  FROM transaction_products tp
24  JOIN products p ON tp.product_id = p.id
25  GROUP BY tp.product_id, p.product_name
26  ORDER BY Ventas_totales DESC;
```

Result Grid			
Filter Rows:		Export:	Wrap Cell Content:
product_id	product_name	Ventas_totales	
23	riverlands north	68	
67	Winterfell	68	
79	Direwolf riverlands the	66	
2	Tarly Stark	65	
43	duel	65	

Result 3 x

Output

Action Output			
#	Time	Action	Message
✓ 1	12:45:13	SELECT * FROM transaction_products LIMIT 0, 1000	1000 row(s) returned
✓ 2	12:48:23	SELECT tp.product_id, p.product_name, COUNT(*) as Ventas_totales FROM transaction_products...	26 row(s) returned