

Roser Blasco
Sprint 4
17 Desembre 2024
Corregit per Vanessa Marina Detto

Base de dades

Nivell 1

- Exercici 1: 30 transaccions
- Exercici 2: mitjana per iban

Nivell 2

- Exercici 1: targetes actives

Nivell 3

- Reemplaçar espais
- Carregar taula productes
- Llista de productes

Exercici 1: vendes per producte

Base de dades

Partint d'alguns arxius CSV dissenyaràs i crearàs la teva base de dades.

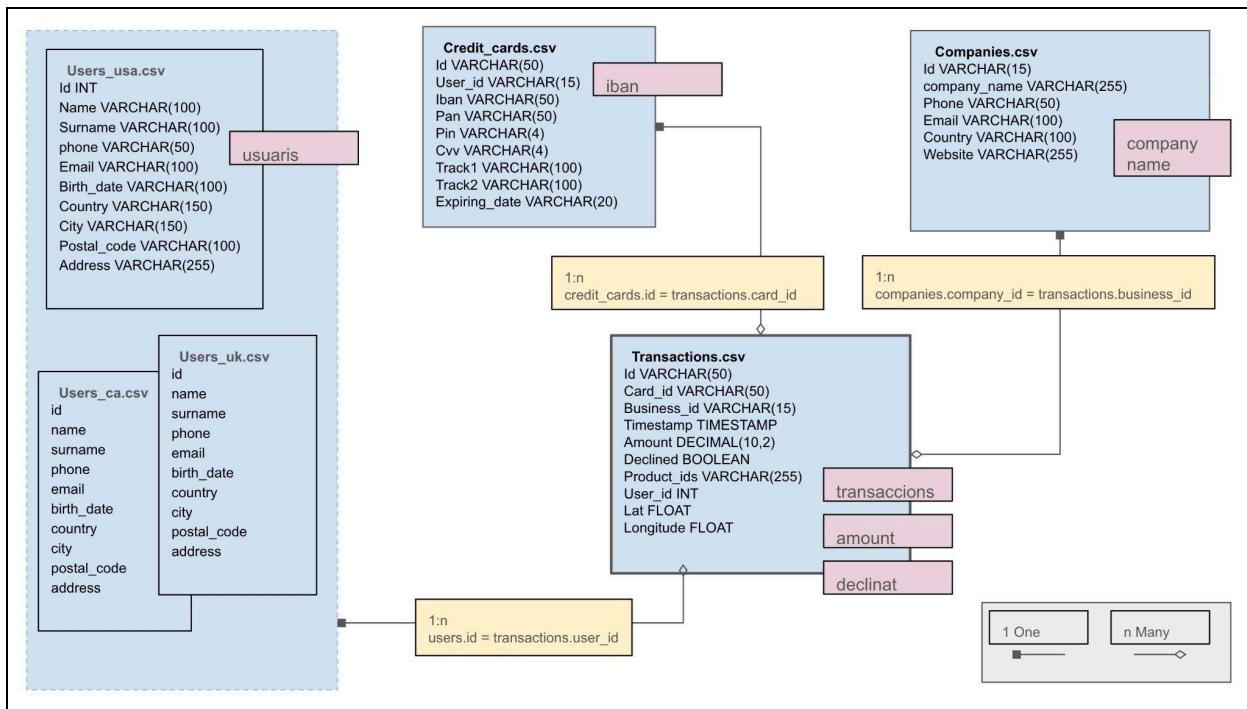
Nivell 1

Descàrrega els arxius CSV, estudia'ils i dissenya una base de dades amb un esquema d'estrella que contingui, almenys 4 taules de les quals puguis realitzar les següents consultes:

De moment montarem la següent base de dades amb 4 taules amb un esquema d'estrella, on la taula de transaccions serà la taula de fets. Deixarem de banda la taula de producte.

Juntarem les taules de users per a simplificar la relació amb credit card i que a més a més, quan es crein nous usuaris, evitar duplicats en el id d'usuari. El usuari de la credit card de moment no el relacionarem perquè no ens interessa de quién usuari és realment la targeta, sinó quién usuari fa la compra.

Afegim en rosa les dades que ens demanaran després en els exercicis i en groc la relació entre taules.



Començarem per crear la base de dades i la taula companies

Screenshot of MySQL Workbench showing the creation of the 'companies' table.

```

1  ## NIVELL 1 ##
2  ### PREPARACIÓ BBDD ###
3
4  -- Creem una base de dades
5  • CREATE DATABASE IF NOT EXISTS modelat_sql_roser2;
6  • USE modelat_sql_roser2;
7
8  • CREATE TABLE IF NOT EXISTS companies (
9      id VARCHAR(15) PRIMARY KEY,
10     company_name VARCHAR(255),
11     phone VARCHAR(50),
12     email VARCHAR(100),
13     country VARCHAR(100),
14     website VARCHAR(255)
15 );

```

Object Info Session

Connection Details

Name: Local instance 3306
Host: localhost
Port: 3306
Login: root
User: root@localhost
SSL: TLS_AES_128_GCM_S
Auth: HA256

Server Product: Homebrew
Version: 9.0.1
Connector Version: C++ 9.0.0

Action Output 0

Time	Action	Response	Duration / Fetch Time
278 15:28:52	CREATE TABLE IF NOT EXISTS companies (id VARCHAR(15) PRIMARY KEY, company_name VARCHAR(255), phone VARCHAR(50), email VARCHAR(100), country VARCHAR(100), website VARCHAR(255));	0 row(s) affected	0.027 sec

Query Completed

La taula credit_cards

The screenshot shows the MySQL Workbench interface with the 'Schemas' tab selected. Under the 'modelat_sql_roser2' schema, the 'Tables' section contains 'companies' and 'credit_cards'. The 'credit_cards' table is currently selected. The SQL editor at the bottom displays the following SQL code:

```

1  ## NIVELL 1 ##
2  ### PREPARACIÓ BBDD ##
3
4  -- Creem una base de dades i les taules
5 • CREATE DATABASE IF NOT EXISTS modelat_sql_roser2;
6 • USE modelat_sql_roser2;
7
8 • CREATE TABLE IF NOT EXISTS companies (
9    id VARCHAR(15) PRIMARY KEY,
10   company_name VARCHAR(255),
11   phone VARCHAR(50),
12   email VARCHAR(100),
13   country VARCHAR(100),
14   website VARCHAR(255)
15 );
16
17 • CREATE TABLE IF NOT EXISTS credit_cards (
18    id VARCHAR(50) PRIMARY KEY,
19    user_id VARCHAR(15),
20    iban VARCHAR(50),
21    pan VARCHAR(50),
22    pin VARCHAR(4),
23    cvv VARCHAR(4),
24    track1 VARCHAR(100),
25    track2 VARCHAR(100),
26    expiring_date VARCHAR(20)
27 );

```

The 'Object Info' and 'Session' tabs are visible on the left. The 'Connection Details' panel shows the connection is to 'Local instance 3306' on 'localhost' with 'root' as the user. The 'Server' and 'Connector' panels show 'Homebrew' and 'C++ 9.0.0' respectively. The 'Action Output' and 'Response' panes at the bottom show the execution details.

La taula users

The screenshot shows the MySQL Workbench interface with the 'Schemas' tab selected. Under the 'modelat_sql_roser2' schema, the 'Tables' section contains 'companies' and 'credit_cards'. The 'users' table is currently selected. The SQL editor at the bottom displays the following SQL code:

```

12   email VARCHAR(100),
13   country VARCHAR(100),
14   website VARCHAR(255)
15 );
16
17 • CREATE TABLE IF NOT EXISTS credit_cards (
18    id VARCHAR(50) PRIMARY KEY,
19    user_id VARCHAR(15),
20    iban VARCHAR(50),
21    pan VARCHAR(50),
22    pin VARCHAR(4),
23    cvv VARCHAR(4),
24    track1 VARCHAR(100),
25    track2 VARCHAR(100),
26    expiring_date VARCHAR(20)
27 );
28
29 • CREATE TABLE IF NOT EXISTS users (
30    id INT PRIMARY KEY,
31    name VARCHAR(100),
32    surname VARCHAR(100),
33    phone VARCHAR(50),
34    email VARCHAR(100),
35    birth_date VARCHAR(100),
36    country VARCHAR(150),
37    city VARCHAR(150),
38    postal_code VARCHAR(100),
39    address VARCHAR(255)
40 );

```

The 'Object Info' and 'Session' tabs are visible on the left. The 'Connection Details' panel shows the connection is to 'Local instance 3306' on 'localhost' with 'root' as the user. The 'Server' and 'Connector' panels show 'Homebrew' and 'C++ 9.0.0' respectively. The 'Action Output' and 'Response' panes at the bottom show the execution details.

La taula transactions

The screenshot shows the MySQL Workbench interface. On the left, the 'Schemas' tree view shows the 'transactions' schema expanded, with 'Columns' selected. The right pane displays the SQL script:

```
36
37
38
39
40
41
42 • CREATE TABLE IF NOT EXISTS transactions (
43     id VARCHAR(50) PRIMARY KEY,
44     card_id VARCHAR(50),
45     business_id VARCHAR(15),
46     timestamp TIMESTAMP,
47     amount DECIMAL(10,2),
48     declined BOOLEAN,
49     product_ids VARCHAR(255),
50     user_id INT,
51     lat FLOAT,
52     longitude FLOAT
53 );
54
55 -- Afegir dades a les taules
56 • LOAD DATA INFILE 'companies.csv' INTO TABLE companies
57     FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
58     LINES TERMINATED BY '\r\n'
59     IGNORE 1 LINES;
```

The 'Object Info' and 'Session' tabs are visible at the bottom.

Afegim les dades a la taula companies

Local instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas

SCHEMAS

Filter objects

modelat_sql_oser

- Tables
- Views
- Stored Procedures
- Functions

modelat_sql_oser2

- Tables
 - companies
 - credit_cards
 - transactions
 - Columns
 - id
 - card_id
 - business_id

Object Info Session

Connection Details

Name: Local instance 3306
Host: localhost
Port: 3306
Login User: root
Current User: root@localhost
SSL cipher: TLS_AES_128_GCM_SHA256

Server

Product: Homebrew
Version: 9.0.1

Connector

Version: C++ 9.0.0

```

34   email VARCHAR(100),
35   birth_date VARCHAR(100),
36   country VARCHAR(150),
37   city VARCHAR(150),
38   postal_code VARCHAR(100),
39   address VARCHAR(255)
40 );
41
42 • CREATE TABLE IF NOT EXISTS transactions (
43   id VARCHAR(15) PRIMARY KEY,
44   card_id VARCHAR(50),
45   business_id VARCHAR(15),
46   timestamp TIMESTAMP,
47   amount DECIMAL(10,2),
48   declined BOOLEAN,
49   product_id VARCHAR(255),
50   user_id INT,
51   lat FLOAT,
52   longitude FLOAT,
53   FOREIGN KEY (user_id) REFERENCES users (id),
54   FOREIGN KEY (card_id) REFERENCES credit_cards (id),
55   FOREIGN KEY (business_id) REFERENCES companies (id)
56 );
57
58 • LOAD DATA INFILE 'companies.csv' INTO TABLE companies
59   FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
60   LINES TERMINATED BY '\r\n'
61   IGNORE 1 LINES;
62

```

Action Output

Time	Action	Response	Duration / Fetch Time
320 15:55:27	LOAD	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0	0.010 sec

Query Completed

I mirem que estigu bé

Local instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas

SCHEMAS

Filter objects

modelat_sql_oser

- Tables
- Views
- Stored Procedures
- Functions

modelat_sql_oser2

- Tables
 - companies
 - credit_cards
 - transactions
 - Columns
 - id
 - card_id
 - business_id

Object Info Session

Connection Details

Name: Local instance 3306
Host: localhost
Port: 3306
Login User: root
Current User: root@localhost
SSL cipher: TLS_AES_128_GCM_SHA256

Server

Product: Homebrew
Version: 9.0.1

Connector

Version: C++ 9.0.0

```

1 • SELECT *
2 FROM companies;

```

Result Grid

id	company_name	phone	email	country	website
b-2222	Ac Fermentum Incorporated	06 85 56 52 33	donec.portitor.tellus@yahoo.net	Germany	https://instagram.com/site
b-2226	Magna A Neque Industries	04 14 44 64 62	rius.donec.nibh@icloud.org	Australia	https://whatsapp.com/group/9
b-2230	Fusce Corp.	08 14 97 58 85	rius@protonmail.edu	United States	https://pinterest.com/sub/cars
b-2234	Convallis In Incorporated	06 66 57 29 50	mauris.ut@aol.co.uk	Germany	https://cnm.com/user/110
b-2238	Ante laculis 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.aculus@hotmail.co.uk	Norway	https://nytimes.com/user/110
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnm.com/one
b-2250	Amet Nulla Donec Corporation	07 15 25 14 74	mattis.integer.eu@protonmail.net	Italy	https://netflix.com/sub/cars
b-2254	Nascetur Ridiculus Mus Inc.	06 26 87 61 84	suspendisse.dui@cloud.net	United States	https://ebay.com/sub
b-2258	Vestibulum Lorem PC	02 02 87 33 40	aenean.massa.integer@aol.net	Belgium	https://pinterest.com/sub/cars
b-2262	Gravida Sagittis LLP	03 81 28 33 97	turpis.vita@google.ca	Sweden	https://naver.com/site
b-2266	Mus Aenean Eget Foundation	06 25 15 52 43	mi.duis@hotmail.net	Sweden	https://instagram.com/group/9
b-2270	Diu Parturient Institute	05 36 29 78 74	pros@protonmail.org	Ireland	https://google.com/one
b-2274	Sed LLC	01 63 16 26 52	at@outlook.com	Belgium	https://reddit.com/fr
b-2278	Arcu LLP	06 46 04 41 45	dui@aol.ca	Norway	https://yahoo.com/sub
b-2282	Pretium Neque Corp.	07 77 48 55 28	eleifend.nec.malesuada@proto...	Australia	https://netflix.com/sub
b-2286	Fringilla LLC	08 29 15 93 57	gravida@protonmail.co.uk	New Zealand	https://reddit.com/user/110
b-2290	Quisque Libero LLC	01 45 48 71 11	sapien.molestie.orci@hotmail.c...	China	https://baidu.com/group/9
b-2294	Auctor Mauris Vel LLP	08 09 28 74 14	nec.tempus@icloud.co.uk	United States	https://instagram.com/fr
b-2298	Eti Etiam Laoreet Associates	07 69 74 17 45	ultrices@google.co.uk	Canada	https://yahoo.com/fr
b-2302	Nunc Intendum Incorporated	05 18 15 48 13	non@outlook.com	Germany	https://wikipedia.org/en-us
b-2306	Augue Foundation	06 88 43 15 63	mauris@yahoo.com	Germany	https://baidu.com/sub/cars
b-2310	Non Magna LLC	06 71 73 13 17	nisl.quisque.fringilla@hotmail.ca	United Kingdom	https://whatsapp.com/sites
b-2314	A Institute	03 34 91 68 65	metus.aliquam@google.edu	Belgium	https://reddit.com/fr
b-2318	Quam A Felis Industries	04 08 10 27 16	proin.velit@icloud.edu	Italy	https://ebay.com/settings
b-2322	Integer Mellis Corp.	03 12 20 45 24	eu.eros@protonmail.ca	Italy	https://netflix.com/group/9
b-2326	Enim Condimentum Ltd	09 05 51 66 25	imperdiet.non.vestibulum@yah...	United Kingdom	https://cnm.com/group/9
b-2330	Donec Fringilla PC	01 51 58 14 44	ut.lincident@hotmail.ca	France	https://google.com/fr

Action Output

Time	Action	Response	Duration
330 15:59:05	SELECT * FROM companies	100 row(s) returned	0.001

Query Completed

A la taula credit cards, en aquest cas només es carrega sense la r

Local Instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas

Filter objects

1 • LOAD DATA INFILE 'credit_cards.csv' INTO TABLE credit_cards
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '\"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

Object Info Session

Connection Details
Name: Local instance 3306
Host: localhost
Port: 3306
Login User: root
Current User: root@localhost
SSL cipher: TLS_AES_128_GCM_SHA256

Server
Product: Homebrew
Version: 9.0.1
Connector
Version: C++ 9.0.0

Action Output Time Action Response Duration / Fetch Time
333 16:00:55 LOAD DATA INFILE 'credit_cards.csv' INTO TABLE credit_cards... 275 row(s) affected Records: 275 Deleted: 0 Skipped: 0 Warnings: 0 0.011 sec

Query Completed

I mirem que estan bé els resultats

Local Instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas

Filter objects

1 • SELECT *
2 FROM credit_cards;

Result Grid Edit: Export/Import: Result Grid Form Editor Field Types Query Stats Execution Plan

id	user_id	iban	pan	pin	cvv	track1	track2	expiring_date
CcU-2952 273	L05072166938416119234	4556 453 55287	4598 438	%#B21832851057287162%#9006859740077	%#B6778580257287162%#9006859740077	06/29/21		
CcU-2959 273	CR724247724435845135	372461377349375	3583 667	%#B7281111956795320%#XcooldjBkcecd%#090102...	%#B424615489281853-280522391679	02/24/23		
CcU-2966 271	BG72LK2705627628373783	44856 886747 4900 130	%#B4782893222756223%#hlgvsuFbmwq%#72022...	%#B2318571115959881-#09021578475	10/29/24			
CcU-2973 270	PT78062283590249456346	544 5865 5433 384	8760 887	%#B47614052372837%#JinjipodBlejr%#7108515...	%#B7816169831446746-1310272729	01/30/25		
CcU-2980 269	DE392418818630360277136	402400 7145845969	5075 596	%#B732043839370549%#OokxprHpsed%#49017...	%#B2474313962214151-041221913175	07/24/22		
CcU-2987 268	GE9868143483748781813	3763 747687 76666	2298 797	%#B4750646345146674%#JmymfGwfr%#830517...	%#B5441935173181615-10370453677	10/31/23		
CcU-2994 267	BE62714425680667657549	44283273252593	7545 595	%#B15375978405874%#GmoyhtUtgom%#25078...	%#B414167473024343-#0506800955074	02/28/22		
CcU-3001 266	CY49087426654714581268832110	51172294833 2244	9562 867	%#B6227288756%#28848%#uwlfcPfmgyd%#28088...	%#B3429355750963453-#30528830573	09/16/22		
CcU-3008 265	L05072166938416119234	4485744464433884	1854 740	%#B32494130529228%#NlcuytHtDvp%#17081...	%#B2523123731781369-#04056381667	04/05/25		
CcU-3015 264	PS11198921629514596805404568821	37092232387389 3246	822	%#B7782111956795320%#XcooldjBkcecd%#090102...	%#B2318571115959881-#09021578475	02/24/23		
CcU-3022 263	G1791694375059080423121857	5164 1374 4842 9551	984 342	%#B084568220510287%#YXwvzKwod%#1056...	%#B7782111956795320%#XcooldjBkcecd%#090102...	01/16/23		
CcU-3029 262	AD831741398241411812373748	129 279586 77631	9708 955	%#B089232542938568%#HImmzRlBem%#1902...	%#B43772671511918-#090245381976	09/02/23		
CcU-3036 261	A23930600295842665649841998	3768 451554 4663 566	2222 565	%#B491457645466431%#NotsazwEngph%#9202591...	%#B759413452276515-#30528830573	07/27/23		
CcU-3043 260	TNG4914310514852179353	455676 6437463035	5989 196	%#B65468531888394%#VjixnyCbixy%#440679...	%#B546932081168583-#2403868577	06/07/23		
CcU-3050 259	FRI177744369175836831054477	4024007123722	4843 126	%#B778417722353790%#WuhwozExww%#91057...	%#B27786707351262-#04036024475	10/09/23		
CcU-3057 258	L0931822757469754821	3484 621767 21237	6805 848	%#B4513248319178918%#BmpmpehXplpx%#71025...	%#B4513248319178918-#04036024475	09/14/23		
CcU-3064 257	P514696564544926337762727313	3467 732741 26810	3865 498	%#B7675544532775797%#XbxvhnPqgeek%#5103...	%#B25232441661722-#08123922827	06/02/23		
CcU-3071 256	N08923814763512	3464 789562 23352	6625 661	%#B815082679583217-#708165320671	%#B25232441661722-#08123922827	12/20/23		
CcU-3078 255	IS02512174588423279548733	4539 322 74 2377	9405 720	%#B8805305952767929%#YncrvuOohn%#6909...	%#B7847385332697301-#510445189471	03/08/23		
CcU-3085 254	BE63114732972437	5266 3346 1135 1687	7241 413	%#B4298286686337%#NaovghMalgv%#78069...	%#B248502349754081-#608989779	05/10/23		
CcU-3092 253	R06GLSD01166122152447487	3488 754223 46253	9417 594	%#B280412368465462%#DolminDlykv%#61072...	%#B123754406214788-#04082138427	12/19/22		
CcU-3099 252	PT7810527535682370557218	448 55148 98683 789	5612 564	%#B58751325323639%#Sdyavpxepeuj%#84034...	%#B720424880651978-#05099746877	01/22/23		
CcU-3106 251	AT784251637773592	3495471 46395283	9733 209	%#B149149487932598%#FhrgwNxkaop%#70015...	%#B982179521072281-#0303720777	01/27/24		
CcU-3113 250	IE26LCGT47732173752752	341834822877471	9011 287	%#B0395671333359126%#CwpwyAgsdpm%#5512...	%#B3438596027194536-#530658655373	06/12/21		
CcU-3120 249	R572655766666166237144	52764 533375 6577	7656 265	%#B38118528147385482%#CwpwyJgjhw%#70054...	%#B6496897042095239-#5059165373	01/16/21		
CcU-3127 248	P78353461438644342818684	4716 443 46 4568	8038 924	%#B3061281355691188%#XboirwZppiw%#25063...	%#B3251465561823891-#7210196578871	01/16/23		
CcU-3134 247	BG23MYJ052686951824779	5146 3435 9768 2168	7260 935	%#B313474228305614%#lbllvdrpy%#9010905...	%#B3656418879463739-#7602836175	08/24/25		
CcU-3141 246	CH4437040777669672438	3775 626726 45261	2923 330	%#B861137771625740%#CpmvnuHoewp%#7711...	%#B503990562878303-#76018919876	05/11/24		

Action Output Time Action Response Duration / Fetch Time
334 16:01:58 SELECT * FROM credit_cards 275 row(s) returned 0.0017 sec / 0.00015...

Query Completed

Carreguem la taula transactions. Amb compte que aquí els valors no estan separats per una coma sinò per punt i coma

The screenshot shows the MySQL Workbench interface. The top menu bar includes 'Local instance 3306 - Warning - not supported', 'MySQL Model*', and 'EER Diagram'. The main window has tabs for 'Administration' and 'Schemas'. Under 'Schemas', there is a tree view for the 'transactions' table, showing columns: id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, and longitude. Below the schema tree is a SQL editor window containing the following code:

```
1 • LOAD DATA INFILE 'transactions.csv' INTO TABLE transactions
2   FIELDS TERMINATED BY ';' OPTIONALLY ENCLOSED BY '"'
3   LINES TERMINATED BY '\r\n'
4   IGNORE 1 LINES;
```

Below the code, the 'Object Info' tab is selected, showing 'Connection Details' and 'Server' information. The 'Connection Details' section includes fields like Name: Local Instance 3306, Host: localhost, Port: 3306, Login User: root, Current User: root@localhost, and SSL cipher: TLS_AES_128_GCM_SHA256. The 'Server' section includes Product: Homebrew, Version: 9.0.1, and Connector: C++ 9.0.0. At the bottom of the interface, a status bar indicates 'Query Completed'.

Mirem que estigué bé

Local instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas Sprint 4 SQL File 48* Sprint4-2* SQL File 57* SQL File 53* SQL File 56*

Filter objects

SCHEMAS transactions

Columns id card_id business_id timestamp amount declined product_ids user_id lat longitude

Indexes

Foreign Keys

Object Info Session

Connection Details

Name: Local instance 3306
Host: localhost
Port: 3306
Login User: root
Current User: root@localhost
SSL cipher: TLS_AES_128_GCM_SHA256

Server Product: Homebrew Version: 9.0.1
Connector Version: C++ 9.0.0

Result Grid Filter Rows: Search Edit Export/Import:

id	card_id	business_id	timestamp	amount	declined	product_ids	user_id	lat	longitude
0466A42E-47CF-8D24-FD01-C0B689713128	CcU-4219	b-2302	2021-07-26 07:29:18	49.53	0	47, 97, 43	170	-43.9695	-117.525
063FB479-99EC-66FB-29F7-25726D17645	CcU-2987	b-2250	2022-01-06 21:25:27	92.61	0	47, 67, 31, 5	275	-81.2227	-129.05
066829C8-CD9B-A883-76BC-2E4CAF8C80AE	CcU-3743	b-2618	2022-01-26 02:07:14	394.18	0	89, 83, 79	265	-34.3593	100.556
06CD9A5A-9842-D684-DDDD-A5E394FEB9A	CcU-2959	b-2346	2021-10-26 23:00:01	279.93	0	43, 31	92	33.7381	158.298
07A46D48-31A3-7E87-6589-0DA902A109F	CcU-3225	b-2386	2021-06-28 21:11:42	340.87	1	47, 23	272	38.8342	92.1905
09DE92CE-6F27-2B87-1385-9365B2B3BE2	CcU-3071	b-2298	2021-05-11 20:40:45	303.05	1	67, 7	275	71.1706	10.5757
0A47ED9D-0C13-1962-F87B-3D6392A5B59	CcU-4359	b-2302	2022-02-26 20:33:54	430.49	0	29, 41, 11	221	-56.4901	114.801
0BEB8B07-9D66-1707-CE4B-9D7C7E1914B5	CcU-3141	b-2338	2022-03-04 14:54:35	288.81	1	19, 41, 29, 3	272	23.3264	-13.6037
0C7C3A33-9947-3BC1-846D-7BE3D0071598	CcU-3306	b-2434	2021-04-10 20:58:41	103.44	1	89, 31	272	63.3615	-68.6667
0CE957A6-CCA-287A-6839-8AB1B324853	CcU-3435	b-2506	2022-02-02 07:29:36	428.69	1	83, 43, 73, ...	269	-69.3537	-10.26
0DD2E608-5C9E-D1B3-4999-B99FA5A8035A	CcU-2959	b-2234	2021-04-17 05:17:17	282.47	1	7, 47, 17	275	9.66811	130.282
1029A4A4-8929-31F1-140C-07BA805013D2	CcU-3701	b-2414	2021-05-02 02:00:28	460.0	0	37, 13	267	-4.22046	-101.154
1029A4A4-8929-31F1-140C-07BA805013D2	CcU-2959	b-2346	2021-12-07 09:20:38	460.0	0	89, 11, 97, 97	275	32.0546	-140.147
1089101D-5020-A76C-55EF-C568C49A05D	CcU-2988	b-2222	2021-07-07 17:45:16	293.57	0	58, 29	275	83.7839	-178.86
1089107A-810C-76EB-AD15-1208CC128037	CcU-1155	b-2346	2021-05-16 21:00:28	293.85	1	43, 83	272	-32.0556	-76.7281
11A8ED97-EA12-189A-96F0-A93A CC172179	CcU-3981	b-2362	2021-07-14 20:55:48	157.20	0	29	68	-78.8402	8.76182
122DC33-E19F-D629-DCD8-9C54CF1EB9A	CcU-4369	b-2302	2021-06-09 06:04:14	172.01	0	1, 67, 19	221	29.6372	-166.173
133B82CC-DE52-8604-2D11-3DC5449E0A5F	CcU-3407	b-2490	2021-04-02 05:17:47	348.88	1	29	271	62.3246	101.017
135267BA-2E7D-957C-C42C-6450A2B3ED54	CcU-4520	b-2302	2021-12-29 20:38:23	17.97	0	11, 71	210	20.6724	14.9732
13DC69F-FA07-E32B-8309-D474C6281E0	CcU-3197	b-2370	2021-06-02 04:10:57	50.09	1	97, 29, 23	272	32.3746	165.016
13FB3B312-B283-7976-DA47-14DE5986218A	CcU-3365	b-2466	2021-10-30 13:42:44	80.58	1	11, 29, 43, 79	272	20.2369	-117.885
147983D2-B7BA-C7B8-4CE3-8D7C2DE65AB	CcU-2994	b-2326	2021-08-09 00:58:07	309.45	0	89, 41, 59	133	66.2672	172.399
14CAE5B5-8FB1-3E4A-4C85-0E4A167534F4	CcU-4849	b-2302	2021-12-31 00:29:42	388.04	0	2, 13, 53, 31	189	-53.6202	93.0533
1517E8A8-B844-A7C9-6691-692C27D0DC2C	CcU-350	b-2546	2021-03-23 01:58:34	295.51	1	83, 43	267	-70.0484	-44.5029
152598C2-029D-D684-4B66-91EDF393EBFF	CcU-2998	b-2326	2021-07-05 03:10:28	395.43	0	23, 97	126	-67.0189	-141.672
156F3F80-7E7D-65CF-727D-6AE03CEB7520	CcU-2959	b-2346	2021-04-29 07:06:10	404.16	0	5	92	-59.9778	172.731
1575F87A-E37B-DADD-554C-A99D8E71624A	CcU-4163	b-2494	2022-01-14 00:43:18	37.55	0	61, 83, 37	238	64.5745	-79.63
158A3AC-54C-DEC5-669D-6373CC678E1C	CcU-1480	b-2302	2022-03-08 05:02:10	240.29	0	13, 41, 89	183	42.5424	-170.347

Action Output

Time	Action	Response	Duration / Fetch Time
378 16:25:17	Select * FROM transactions	587 row(s) returned	0.0022 sec / 0.0017 s...

Query Completed

I les dades de la taula users. Primer els de USA

Local instance 3306 - Warning - not supported MySQL Model* EER Diagram

Administration Schemas Sprint 4 SQL File 48* Sprint4-2* SQL File 57* SQL File 53* SQL File 56*

Filter objects

SCHEMAS transactions

Columns id card_id business_id timestamp amount declined product_ids user_id lat longitude

Indexes

Foreign Keys

Object Info Session

Connection Details

Name: Local instance 3306
Host: localhost
Port: 3306
Login User: root
Current User: root@localhost
SSL cipher: TLS_AES_128_GCM_SHA256

Server Product: Homebrew Version: 9.0.1
Connector Version: C++ 9.0.0

Result Grid Filter Rows: Search Edit Export/Import:

```

1 • LOAD DATA INFILE 'users_usa.csv' INTO TABLE users
2   FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY ...
3   LINES TERMINATED BY '\r\n'
4   IGNORE 1 LINES;

```

Action Output

Time	Action	Response	Duration / Fetch Time
379 16:26:34	LOAD DATA INFILE 'users_usa.csv' INTO TABLE users FIELDS TE...	150 row(s) affected Records: 150 Deleted: 0 Skipped: 0 Warnings: 0	0.0081 sec

Query Completed

Mirem que estan bé

The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Local instance 3306 - Warning - not supported, MySQL Model*, EER Diagram.
- Schemas:** Administration, Schemas, Filter objects: transactions.
- Query Editor:** Sprint 4, SQL File 48*, Sprint4-2*, SQL File 57*, SQL File 53*, SQL File 56*. The query is:


```
1 • Select *
2   FROM users;
```
- Result Grid:** Shows the 'users' table with 27 rows of data. The columns are: id, name, surname, phone, email, birth_date, country, city, postal_code, address.
- Session Details:**
 - Connection Details:** Name: Local instance 3306, Host: localhost, Port: 3306, Login User: root, User: root@localhost, SSL cipher: TLS_AES_128_GCM_SHA256.
 - Server:** Product: Homebrew, Version: 9.0.1.
 - Connector:** Version: C++ 9.0.0.
- Action Output:** Shows the execution of the query: 381 rows returned in 0.0014 sec / 0.00006...

Li afegim les dades de UK

The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Local instance 3306 - Warning - not supported, MySQL Model*, EER Diagram.
- Schemas:** Administration, Schemas, Filter objects: transactions.
- Query Editor:** Sprint 4, SQL File 48*, Sprint4-2*, SQL File 57*, SQL File 53*, SQL File 56*. The query is:


```
1 • LOAD DATA INFILE 'users_uk.csv' INTO TABLE users
2   FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
3   LINES TERMINATED BY '\r\n'
4   IGNORE 1 LINES;
```
- Action Output:** Shows the execution of the command: 382 rows affected in 0.0062 sec.

I mirem que estan bé

The screenshot shows the MySQL Workbench interface with a query results grid. The query is:

```

1 • Select *
2   FROM users;
  
```

The results grid displays 200 rows of user data. The columns are: id, name, surname, phone, email, birth_date, country, city, postal_code, address. The data includes various names like Brent Bates, Lucas Stevenson, Lisandra Carpenter, etc., with their respective details such as phone numbers, emails, and addresses.

Els de Canadà

The screenshot shows the MySQL Workbench interface with a query results grid. The query is:

```

1 • LOAD DATA INFILE 'users_ca.csv' INTO TABLE users
2   FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
3   LINES TERMINATED BY '\r\n'
4   IGNORE 1 LINES;
5
  
```

The results grid displays 200 rows of user data. The columns are: id, name, surname, phone, email, birth_date, country, city, postal_code, address. The data includes various names like Rosalyn Blake, Carly Mathews, Keely Fox, Lewis Melendez, etc., with their respective details such as phone numbers, emails, and addresses.

I mirem que està bé

Screenshot of MySQL Workbench showing the results of a query:

```

1
2 • Select *
3 FROM users;

```

Result Grid

id	name	surname	phone	email	birth_date	country	city	postal_code	address
249	Rhea	Harvey	052-289-6564	rheaharvey@protonmail.org	Jul 2, 1991	Canada	Weyburn	7L 2S9	910-7903 Sabian Avenue
250	Hilda	Levy	052-289-2367	hilida.levy@yahoo.com	Dec 15, 1994	Canada	Bethelwood	JH+ 2G5	P.O. Box 496, 1835 At Street
251	Dore	Miller	098-545-1455	ld aliquet lobortis@icloud.com	Aug 25, 1989	Canada	Bethelwood	H4Y 6V2	P.O. Box 309, 103 Neque Str..
252	Zephia	Collins	021-817-1549	urna.vivamus@icloud.ca	Jun 29, 1994	Canada	Anviat	YX8 0E8	237-5522 Donec St.
253	Keara	Parks	048-303-4775	consectetur.adipiscing@google.edu	Oct 2, 1986	Canada	Town of Y...	T2R 4Z7	793-2778 Ornare St.
254	John	Cottos	085-253-4901	iam@yahoo.org	Sep 26, 1983	Canada	Colwood	53K 8S9	Ap #234-6329 Ipsum Road
255	Blaze	Daniel	087-870-8309	feliis@protonmail.org	Oct 11, 1998	Canada	Swan Hills	Y1N 5X1	811-6644 Id, Road
256	Lane	Paul	044-254-6877	necl@protonmail.ca	Aug 10, 1983	Canada	Saskatoon	TJ3 3X3	P.O. Box 850, 1002 Purus, Av.
257	Heather	Paul	044-254-6877	prentiss@protonmail.com	Oct 1, 1991	Canada	Dundas	9P9 6S6	Ap #123-4567 Ut, Street
258	Stacy	Robbins	076-226-5788	tempus.eu.ligula@google.edu	Jun 26, 1980	Canada	Calderon	R4H 8V3	416-9824 Quam Street
259	Slade	Downs	034-228-4880	nunc@protonmail.net	May 28, 1994	Canada	Miniflora	T2Y 5Z1	Ap #213-2963 Tristique Road
260	Grace	Rowe	071-756-4297	convallis.convallis@hotmail.edu	Mar 25, 1987	Canada	Abbotsford	Y7S 3W8	Ap #417-5793 Triculum Rd.
261	Violet	Weber	019-661-3744	aliquet.metus@hotmail.co.uk	Sep 23, 1984	Canada	Ucluelet	W4C 3H8	102-5355 Aliquet Av.
262	Brett	Kirby	076-166-2169	auctor.nunc.nula@outlook.org	Dec 12, 1988	Canada	Barf	S6V 7V5	Ap #431-3047 Adipiscing Rd.
263	Ima	Hendrick	044-254-6877	necl@protonmail.ca	Nov 6, 1991	Canada	Whitehorse	7V9 0B5	Ap #750-483 Lacinia, Rd.
264	Keiko	Guerre	034-254-6877	plam@outlook.ca	Dec 12, 1995	Canada	Bethurst	T7C 9N8	Ap #123-4567 Ut, Street
265	Elaine	Greene	026-178-1548	tempus.eu.ligula@protonmail.org	Jan 10, 1990	Canada	Oshawa	5P7 1M9	P.O. Box 369, 1103 Curseta St.
266	Aiko	Chaney	026-660-1876	ante.ipsum.primes@protonmail.ca	Oct 16, 1986	Canada	Vancouver	R8S 1E1	821-3499 Sapien Ave
267	Ocean	Nelson	079-481-2745	enean@yahoo.com	Dec 26, 1991	Canada	Charlottet...	8S X3P4	Ap #732-8357 Pepe, Rd.
268	Clark	Olson	029-086-1867	nunc@cloud.net	Mar 15, 1987	Canada	Montague	SSY 1W6	1315 Est Rd.
269	Haley	Fitzpatrick	055-871-6684	in.aliquet@outlook.org	Jan 10, 1996	Canada	Pangnirtung	ROY 1E3	P.O. Box 914, 451 Nam Rd.
270	Elton	Robertson	098-166-2169	transfusio@protonmail.google.net	Oct 20, 1990	Canada	McClure	2P9 1M9	200-5355 Aliquet Av.
271	Leandra	Wright	026-265-7010	morbi.sunt@protonmail.ca	Sep 25, 1982	Canada	Gander	H8S 6A9	854-8583 Sallituludin Av
272	Hedwig	Gilbert	064-204-8788	sem.eget@icloud.edu	Aug 18, 1991	Canada	Tuktoyaktuk	C4C 3G7	P.O. Box 696, 5145 Sapien R...
273	Hilary	Ferguson	090-710-1604	sapien.molestie.orci@google.edu	Nov 3, 1981	Canada	Pangnirtung	12T 5G4	Ap #736-4628 Cras Sapien R...
274	Jame...	Hunt	024-732-2321	fringilla@protonmail.com	Jan 29, 1982	Canada	Township...	B6V 6N4	224-4927 Praesent Ave
275	Kenyon	Hartman	082-871-7248	convallis.ante.lectus@yahoo.com	Aug 3, 1982	Canada	Richmond	RBH 2K2	8564 Facilisi. St.

Action Output

Time	Action	Response	Duration / Fetch Time
275 rows returned	275 rows returned	0.0017 sec / 0.00019...	

Query Completed

Ara afegim les relacions

Screenshot of MySQL Workbench showing the results of an ALTER TABLE command:

```

1
2
3 • ALTER TABLE transactions ADD CONSTRAINT fk_user_id foreign key (user_id)
4 REFERENCES users (id);
5
6 • ALTER TABLE transactions ADD CONSTRAINT fk_card_id foreign key (card_id)
7 REFERENCES credit_cards (id);
8
9 • ALTER TABLE transactions ADD CONSTRAINT fk_business_id foreign key (business_id)
10 REFERENCES companies (id);

```

Action Output

Time	Action	Response	Duration / Fetch Time
587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0	ALTER TABLE transactions ADD CONSTRAINT fk_business_id fore...	0.027 sec	

Query Completed

Li demanem que ens monti un grafic per a comprovar-ho



- Exercici 1: 30 transaccions

Realitza una subconsulta que mostri tots els usuaris amb més de 30 transaccions utilitzant almenys 2 taules.

Donem una ullada a quantes transaccions té cada usuari

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays the schema structure for the 'companies' table, including columns like id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, and longitude. The main area shows the execution of a query:

```
1 •  SELECT user_id, COUNT(id) AS transaccions
2   FROM transactions
3   GROUP BY user_id
4   ORDER BY transaccions DESC;
```

The result grid displays the following data:

user_id	transaccions
272	76
267	52
275	48
92	39
96	25
210	22
126	17
110	5
268	4
269	4
270	4
271	4
273	4
274	4
189	2
190	2
191	2
192	2
193	2
194	2
195	2
196	2
197	2
198	2
199	2
200	2

At the bottom, the action output shows the query executed and the response: "SELECT user_id, COUNT(id) AS transaccions FROM transactions GROUP BY user_id ORDER BY transaccions DESC; 216 row(s) returned". The duration was 0.00076 sec / 0.0000... .

I filtrarem per usuaris amb aquest numero de transaccions

Local instance 3306 - Warning - not supported

```

1 •  SELECT user_id AS usuari, COUNT(id) AS nr_transacciones
2   FROM transactions
3   GROUP BY user_id
4   HAVING COUNT(id) > 30
5   ORDER BY COUNT(id) DESC;

```

usuari	nr_transacciones
272	76
267	52
275	48
92	39

Result 11 Read Only

Action Output Response

51 13:24:38 SELECT user_id AS usuari, COUNT(id) AS nr_transacciones FRO... 4 row(s) returned

Duration / Fetch Time 0.0013 sec / 0.00000...

Query Completed

I ara que ens doni només aquests ids

Local instance 3306 - Warning - not supported

```

1 •  SELECT user_id
2   FROM transactions
3   GROUP BY user_id
4   HAVING COUNT(id) > 30
5   ORDER BY COUNT(id) DESC;

```

user_id
272
267
275
92

transactions 12 Read Only

Action Output Response

52 13:27:43 SELECT user_id FROM transactions GROUP BY user_id HAVING... 4 row(s) returned

Duration / Fetch Time 0.0027 sec / 0.00001...

Query Completed

ho afegim a la consulta

```

1
2 •   SELECT *
3     FROM users
4     WHERE id IN (SELECT user_id
5                   FROM transactions
6                   GROUP BY user_id
7                   HAVING COUNT(id) > 30
8                   ORDER BY COUNT(id) DESC)
9

```

id	name	surname	phone	email	birth_date	country	city	postal_code	address
82	Lynn	Ridds	1-387-885-4057	vitae aliquet@outlook.edu	Sep 21, 1984	United States	Bozeman	81671	P.O. Box 712, 7807 Est St Ap #723-4357 Pepe, Rd.
267	Ocean	Nelson	070-481-2745	amean@yahoo.com	Dec 26, 1991	Canada	Charlottetown	85X-3P4	
272	Hedwig	Gilbert	064-204-8788	sem eget@icloud.edu	Apr 16, 1991	Canada	Tuktoyaktuk	Q4C 3G7	P.O. Box 496, 5146 Sapien Road
275	Kenyon	Hartman	082-871-7248	convallis ante lectus@yahoo.com	Aug 3, 1982	Canada	Richmond	R8H 2K2	8564 Facilisi, St.

Action Output: 53 13:28:47 SELECT * FROM users WHERE id IN (SELECT user_id FROM tra... 4 row(s) returned Duration / Fetch Time: 0.0072 sec / 0.00003...

- Exercici 2: mitjana per iban

Mostra la mitjana d'amount per IBAN de les targetes de crèdit a la companyia Donec Ltd, utilitza almenys 2 taules.

Comencem fent un average per credit card, que se li assembla bastant

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4 SQL File 9*

SCHEMAS Filter objects

- > credit_cards
- > transactions
- < Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- > Indexes
- > Foreign Keys
- > Triggers
- > users

Object Info Session

Table: companies

Columns:

id	company_name	phone	email	country	website
CcU-4388		499.220000			
CcU-4945		497.840000			
CcU-4814		494.170000			
CcU-3666		492.420000			
CcU-4086		492.250000			
CcU-4037		486.540000			
CcU-4142		485.050000			
CcU-4200		479.000000			
CcU-4861		478.870000			
CcU-4226		476.330000			
CcU-3750		475.060000			
CcU-4541		474.700000			
CcU-3246		473.075000			
CcU-3652		468.490000			
CcU-3095		468.345000			
CcU-4177		463.000000			
CcU-3953		462.740000			
CcU-4415		462.350000			

Result 3

Action Output

Time	Action	Response	Duration / Fetch Time
56	13:34:49	SELECT card_id, AVG(amount) FROM transactions GROUP BY c...	0.0048 sec / 0.0000...

Query Completed

Busquem el id de la companyia Donec b-2242

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4 SQL File 9* SQL File 10*

SCHEMAS Filter objects

- > modelat_sql_roser
- > Tables
 - > companies
 - Columns
 - id
 - company_name
 - phone
 - email
 - country
 - website
 - Indexes
 - Foreign Keys
 - Triggers
 - > credit_cards
 - > transactions

Object Info Session

Table: companies

Columns:

id	company_name	phone	email	country	website
b-2242	Donec Ltd	01 25 51 37 37	at.laculis@hotmail.co.uk	Norway	https://nytimes.com/user/110
b-2482	Dui Cras Associates	08 12 73 87 84	tristique@yahoo.com	Italy	https://reddit.com/fr
b-2514	Cras Consulting	07 50 10 85 61	sed.consequat@gmail.ca	Belgium	https://baidu.com/en-us
b-2554	Cras Vehicula Aliquet Industries	03 37 86 87 75	arca@hotmail.org	Netherlands	https://google.com/sub
b-2562	Dicitur Eu Corp.	03 04 73 67 31	donec.vitae@icloud.ca	Canada	https://netflix.com/en-ca
b-2270	Dis Parturient Institute	05 36 29 75 74	purus@protonmail.org	Ireland	https://google.com/ir
b-2502	Dolor Vitae Limited	06 53 60 45 60	purus.maecenas@yahoo.edu	France	https://whatsapp.com/user/110
b-2330	Donec Fringilla PC	01 51 58 14 44	ut.lindidunt@hotmail.ca	France	https://google.com/fr
b-2242	Donec Ltd	01 25 51 37 37	at.laculis@hotmail.co.uk	Norway	https://nytimes.com/user/110
b-2482	Dui Cras Associates	08 12 73 87 84	tristique@yahoo.com	Italy	https://reddit.com/fr
b-2578	Dui Quis Institute	06 93 28 72 81	luctus.sit.amet@yahoo.co.uk	New Zealand	https://yahoo.com/en-us
b-2610	Egestas Nunc Sed Limited	06 01 02 70 47	vitae@hotmail.edu	Italy	https://walmart.com/one
b-2360	Eget Ipsum Ltd	03 67 44 56 72	lacinia.at.iaculis@hotmail.net	United States	https://whatsapp.com/settings
b-2458	Eget Tincidunt Dui Institute	05 35 93 32 44	egert.laoreet@hotmail.org	Netherlands	https://wikipedia.org/user/110
b-2298	Et Etiam Lacreet Associates	07 69 74 17 45	ultrices@google.co.uk	Canada	https://yahoo.com/fr
b-2326	Etiam Condimentum Ltd	09 55 51 66 25	imperdiet@vestibulum@yahoo.com	United Kingdom	https://owncloudgroup/9
b-2378	Erat LLP	03 18 86 77 79	non.vestibulum@protonmail.net	Netherlands	https://ebay.com/fr
b-2594	Et Magnis Ltd	03 53 76 11 76	dapibus.igula@protonmail.net	Belgium	https://instagram.com/sub
b-2478	Etiam Bibendum Fermentum...	07 46 69 45 02	sem.magna@icloud.ca	France	https://youtube.com/one
b-2590	Euismod Mauris Institute	02 13 69 54 85	vivamus.molestie@icloud.ca	Belgium	https://ebay.com/en-ca

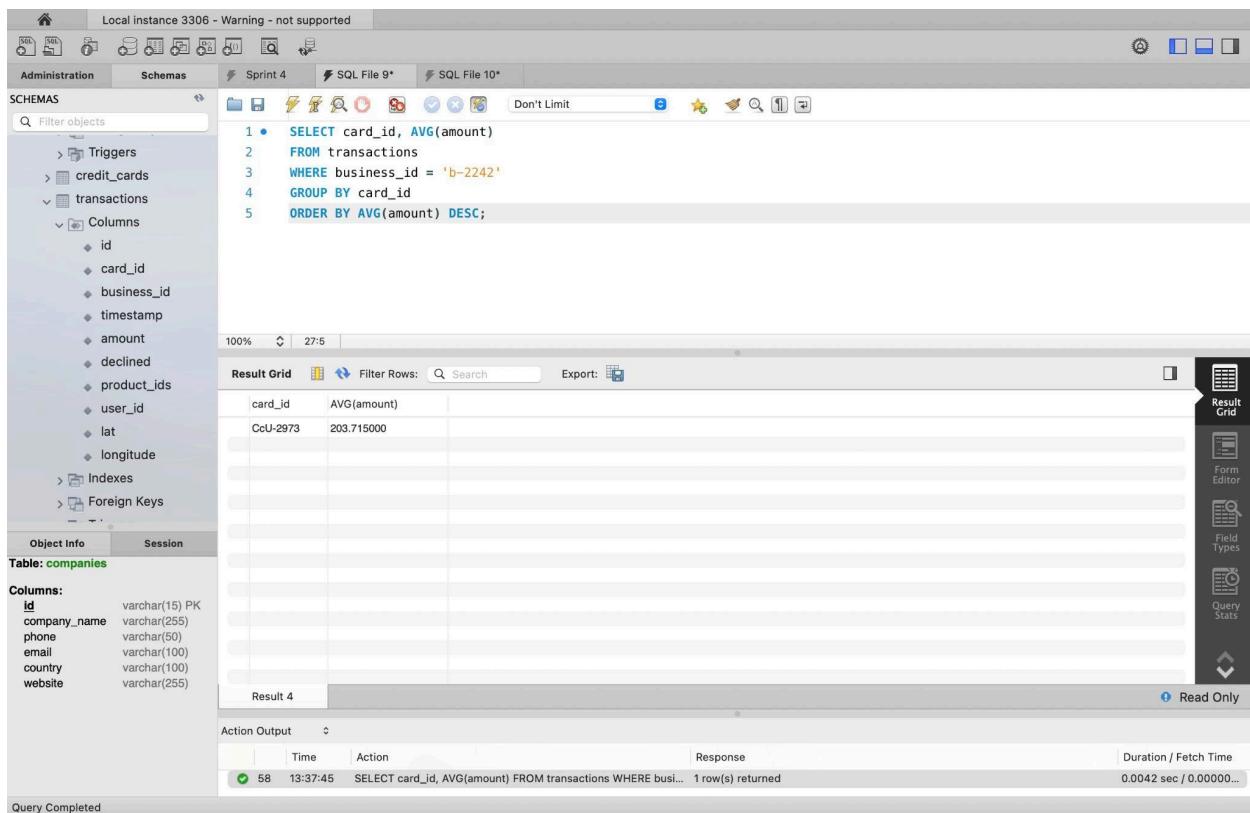
companies 1

Action Output

Time	Action	Response	Duration / Fetch Time
57	13:36:14	SELECT * FROM companies	0.0026 sec / 0.0000...

Query Completed

I filtrém els resultats



The screenshot shows the MySQL Workbench interface with a query editor and results grid.

Query Editor:

```
1 •  SELECT card_id, AVG(amount)
2   FROM transactions
3  WHERE business_id = 'b-2242'
4  GROUP BY card_id
5  ORDER BY AVG(amount) DESC;
```

Result Grid:

card_id	Avg(amount)
CcU-2973	203.715000

Action Output:

Time	Action	Response	Duration / Fetch Time
58 13:37:45	SELECT card_id, AVG(amount) FROM transactions WHERE busi...	1 row(s) returned	0.0042 sec / 0.00000...

Object Navigator:

- Administration
- Schemas
- Sprint 4
- SQL File 9*
- SQL File 10*

Object Info:

Table: companies

Columns:

id	varchar(15) PK
company_name	varchar(255)
phone	varchar(50)
email	varchar(100)
country	varchar(100)
website	varchar(255)

Ara reemplacem el ID per una subquery i mirem que ens dóna el mateix

The screenshot shows the MySQL Workbench interface. In the top-left pane, the 'SCHEMAS' tree is visible, showing tables like 'Triggers', 'credit_cards', 'transactions', and 'Columns'. The 'Transactions' node is expanded, showing columns such as 'id', 'card_id', 'business_id', 'timestamp', 'amount', 'declined', 'product_ids', 'user_id', 'lat', and 'longitude'. In the center, the SQL Editor contains the following query:

```
1 •  SELECT card_id, AVG(amount)
2   FROM transactions
3   WHERE business_id = (SELECT id
4     FROM companies
5     WHERE company_name='Donec Ltd')
6   GROUP BY card_id
7   ORDER BY AVG(amount) DESC;
```

The Result Grid below shows the output of the query:

card_id	AVG(amount)
CcU-2973	203.715000

On the right side, there is a sidebar with icons for 'Result Grid', 'Form Editor', 'Field Types', and 'Query Stats'. At the bottom, the status bar indicates 'Query Completed'.

Li afegim els ibans

```

1 •  SELECT credit_cards.iban, AVG(amount) AS mitjana_transaccio_donec
2   FROM transactions
3   JOIN credit_cards ON credit_cards.id = transactions.card_id
4   WHERE business_id = (SELECT id
5     FROM companies
6     WHERE company_name='Donec Ltd')
7   GROUP BY credit_cards.iban
8   ORDER BY AVG(amount) DESC;
9

```

Result Grid

iban	mitjana_transaccio_donec
PT87806228135092429456346	203.715000

Action Output

Time	Action	Response	Duration / Fetch Time
65 13:51:15	SELECT credit_cards.iban, AVG(amount) AS mitjana_transaccio...	1 row(s) returned	0.0016 sec / 0.00000...

Nivell 2

Crea una nova taula que reflecteixi l'estat de les targetes de crèdit basat en si les últimes tres transaccions van ser declinades i genera la següent consulta:

Entenem que les targetes que han segut declinades les últimes tres transaccions són tgt inactives i que la resta són actives

Comencem preguntant quantes targetes hi ha que hagin fet transaccions

The screenshot shows the MySQL Workbench interface. The left sidebar displays the schema structure for the 'transactions' table, including columns like id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, and longitude. A query editor window contains the following SQL code:

```
1 •  SELECT distinct(card_id)
2   FROM transactions;
3
```

The results grid shows 275 rows of data, each containing a unique card ID. The right sidebar provides various tools and options for managing the query.

card_id
CcU-2938
CcU-2945
CcU-2952
CcU-2959
CcU-2966
CcU-2973
CcU-2980
CcU-2987
CcU-2994
CcU-3001
CcU-3008
CcU-3015
CcU-3022
CcU-3029
CcU-3036
CcU-3043
CcU-3050
CcU-3057
CcU-3064
CcU-3071
CcU-3078
CcU-3085
CcU-3092
CcU-3099
CcU-3106
CcU-3113
Result 14

I quantes transaccions ha tingut cada targeta

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4* SQL File 9* SQL File 10*

SCHEMAS Filter objects Filter Rows: Search Export:

```

1 •  SELECT distinct(card_id), count(id)
2   FROM transactions
3   GROUP BY card_id
4   ORDER BY count(id) DESC;
5

```

Result Grid Filter Rows: Search Export:

card_id	count(id)
CcU-2994	39
CcU-4219	39
CcU-2959	38
CcU-4849	29
CcU-4191	25
CcU-2938	24
CcU-3393	22
CcU-3981	17
CcU-4093	5
CcU-2945	2
CcU-2952	2
CcU-2966	2
CcU-2973	2
CcU-2980	2
CcU-2987	2
CcU-3001	2
CcU-3008	2
CcU-3015	2
CcU-3022	2
CcU-3029	2
CcU-3036	2
CcU-3043	2
CcU-3050	2
CcU-3057	2
CcU-3064	2
CcU-3071	2

Result 16 Read Only

Action Output Time Action Response Duration / Fetch Time

76	15:34:48	SELECT distinct(card_id), count(id) FROM transactions GROUP...	275 row(s) returned	0.0019 sec / 0.00003...
----	----------	--	---------------------	-------------------------

Query Completed

I quantes vegades en total s'ha declinat cada targeta

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4* SQL File 9* SQL File 10* SQL File 11*

SCHEMAS Filter objects

- > expiring_cards
 - > Indexes
 - > Foreign Keys
 - > Triggers
- > transactions
 - > Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined**
 - product_ids
 - user_id
 - lat
 - longitude
 - > Indexes

Object Info Session

Column: **declined**

Definition: declined tinyint(1)

```

1 •  SELECT distinct(card_id), count(id), sum(declined)
2   FROM transactions
3   GROUP BY card_id
4   ORDER BY sum(declined) DESC;
5

```

Result Grid Filter Rows: Search Export:

card_id	count(id)	sum(decline...)
CcU-2938	24	1
CcU-2945	2	1
CcU-2952	2	1
CcU-2959	38	1
CcU-2966	2	1
CcU-2973	2	1
CcU-2980	2	1
CcU-2987	2	1
CcU-2994	39	1
CcU-3001	2	1
CcU-3008	2	1
CcU-3015	2	1
CcU-3022	2	1
CcU-3029	2	1
CcU-3036	2	1
CcU-3043	2	1
CcU-3050	2	1
CcU-3057	2	1
CcU-3064	2	1
CcU-3071	2	1
CcU-3078	2	1
CcU-3085	2	1
CcU-3092	2	1
CcU-3099	2	1
CcU-3106	2	1
CcU-3113	2	1

Result 20 Read Only

Action Output Time Action Response Duration / Fetch Time

84	15:38:31	SELECT distinct(card_id), count(id), sum(declined) FROM trans...	275 row(s) returned	0.0046 sec / 0.0000...
----	----------	--	---------------------	------------------------

Query Completed

Sembla que cap targeta d'hagi declinat més d'una vegada. Inclús investigant una mica més a fons.

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4* SQL File 9* SQL File 10* SQL File 11*

SCHEMAS Filter objects

- > Indexes
- > Foreign Keys
- > Triggers
- transactions
- Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- Indexes

Object Info Session

Column: declined

Definition: declined tinyint(1)

```

1 • SELECT *
2   FROM transactions
3   WHERE card_id = 'CcU-3393';

```

Result Grid Filter Rows: Search Edit: Export/Import:

id	card_id	business_id	timestamp	amount	declined	product_ids	user_id	lat	longitude
49CD105D-E569-3733-C8C8-3908ED7E1838	CcU-3393	b-2326	2021-12-24 23:43:59	411.81	0			-47.8783	168.275
51A4866C-484C-5529-8419-B7BBADE4294D	CcU-3393	b-2346	2021-03-27 10:25:42	447.06	0			74.8691	-147.034
61EC87A4-CF88-B392-F93B-75EF2FC93537	CcU-3393	b-2326	2021-06-01 20:23:57	346.10	0			88.4626	85.6351
71CB87BE-F93E-4877-DF6D-1BD3B312ED29	CcU-3393	b-2326	2021-10-21 20:41:56	441.63	0			-27.1212	-105.573
7D00819EC-7363-6767-36C0-97CE77D5E65	CcU-3393	b-2326	2021-05-09 15:36:26	158.89	0			-26.2616	25.8733
84BBECA6-A786-91C0-C973-88730565BFa3	CcU-3393	b-2326	2021-12-02 07:12:35	179.18	0			11.71,17	110
8C5C40B3-3988-EE44-128E-18147A9E62D2	CcU-3393	b-2346	2021-12-22 05:18:10	123.09	0			-32.7338	-136.163
925C1A912-BC56-8905-9279-FC88DE2185f6	CcU-3393	b-2326	2021-05-07 17:01:17	341.44	0			49.4942	-62.5086
9833DD1C-702C-A8A7-FB46-ABC4A70DF7B4	CcU-3393	b-2326	2022-01-06 22:25:58	472.18	0			-84.9792	128.766
9A993DCE-716B-D784-9192-285C2A490Ae8	CcU-3393	b-2346	2021-08-28 23:40:17	193.64	0			61.11,23	105.291
9EE639A3-2836-87C2-207F-AF3941834DB2	CcU-3393	b-2346	2021-08-09 08:17:46	368.83	0			19.7	100
A022DC5d-F7C9-EA3-0308-32488538f6BD	CcU-3393	b-2482	2022-02-19 17:24:18	153.89	1			47.61	272
A234A47C-7594-6485-E582-79D6671E1483	CcU-3393	b-2326	2021-12-13 12:20:16	100.78	0			7,3,2	113
A4534186-6CA4-E910-26E1-8986816885E9	CcU-3393	b-2326	2021-06-06 11:57:32	58.14	0			37.29	114
B1ED4136-D41A-6BF3-4C61-7A575F624670	CcU-3393	b-2482	2021-06-09 16:23:11	22.19	0			23,71,29	5,272
B220187A-2A9C-0384-EEA1-DD917F11C94F	CcU-3393	b-2326	2021-09-07 04:13:28	466.48	0			53	115
BAA38D001-C4D1-6F43-DOF8-5EC8C8B8384B	CcU-3393	b-2326	2022-02-05 15:36:28	167.19	0			53,97,73	2,109
CEED5D49-B28f-49A6-E567-9e7f74864190	CcU-3393	b-2346	2021-09-09 02:41:00	107.30	0			19,71,41	103
D95F1C84-2844-66D2-3958-E4EBEFc36A75	CcU-3393	b-2326	2021-08-14 17:42:42	266.37	0			47,89	110
DD9860B0-D1BC-F993-4DE8-Sa247ACD73	CcU-3393	b-2326	2021-09-24 14:08:59	176.20	0			2,23	110
F843DC08-CCB5-2444-1B4E-5966289FBaB8	CcU-3393	b-2346	2021-04-27 08:12:28	18.08	0			7,53,37	102
F85a7D75-2778-9D75-D776-3F41A828DE88	CcU-3393	b-2346	2021-10-10 01:46:36	135.93	0			23,97,31,3,101	24.1698
HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL

transactions 4

Action Output

Time	Action	Response	Duration / Fetch Time
84 15:38:31	SELECT distinct(card_id), count(id), sum(declined) FROM trans...	275 row(s) returned	0.0046 sec / 0.0000...

Query Completed

En qualsevol cas, seguim. Ordenem les transaccions de més recents a més antigues

Local instance 3306 - Warning - not supported

Administration Schemas Sprint 4* SQL File 10* SQL File 11* SQL File 12* SQL File 13* SQL File 14*

SCHEMAS Filter objects Indexes Foreign Keys Triggers transactions Columns id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, longitude Indexes Object Info Session

```

1 •   SELECT *
2     FROM transactions
3     ORDER BY timestamp DESC;

```

Result Grid Filter Rows: Search Edit: Export/Import:

id	card_id	business_id	timestamp	amount	declined	product_ids	user_id	lat	longitude
69D90229-AD26-43C3-5AAF-BD332D3B3E62	CcU-2959	b-2362	2022-03-16 14:01:36	329.03	0	67, 29	92	4.07537	129.723
F1D89D51-B-AE8D-77DC-E450-B8083FB03187	CcU-3960	b-2494	2022-03-09 02:35:05	200.72	0	3, 2, 73, 1	250	8.01217	-64.6715
CA515AD3-5A34-6966-073E-1D231CE56678	CcU-4709	b-2278	2022-03-15 16:24:37	25.78	0	2	206	80.0508	-167.602
D5C5ABC81-6D3F-E8C7-29A9-C136DEAD8E	CcU-3799	b-2618	2022-03-15 02:15:32	101.32	0	73, 31	261	-6.94376	-56.6999
2EBE1D7D-90D7-944D-E758-2CD8949497A5	CcU-4191	b-2346	2022-03-14 13:51:53	305.47	0	89, 53, 59	96	4.10875	-60.6688
6ADFF6D5-D-D032-B8C6-F157-0C836F5BEF67	CcU-4849	b-2302	2022-03-14 09:23:10	20.33	0	1	190	26.4978	-54.1349
5BA91852-2D60-169A-805B-E1FA120E9683	CcU-4471	b-2302	2022-03-13 13:37:34	164.32	0	3	213	7.30204	72.5522
F22E9857-414B-BEEC-E9A-D-59A7-A9A62990	CcU-3232	b-2390	2022-03-13 00:27:34	78.29	0	83, 7, 17, 89	272	-24.3195	-11.4135
A085A78A-8829-5746-93A0-887A792EBC18	CcU-2938	b-2362	2022-03-12 09:23:10	263.59	0	2, 3, 29	92	25.5502	-142.624
D1389977-A7AD-1856-10EA-E2D04741D40C	CcU-2994	b-2326	2022-03-10 03:43:25	226.16	0	1, 5	127	-8.7274	37.96
F1A598A2-86C5-50A9-F1CE-FB1D69866C39	CcU-2938	b-2362	2022-03-09 20:53:59	229.65	0	79, 73	84	-65.124	31.0337
556BA583-1E05-6B1F-BE39-36f447868EFE	CcU-3463	b-2522	2022-03-09 04:15:58	470.03	1	17, 7	267	-34.5017	-6.4337
158A3ACB-541C-DBCC-65BD-6373C6c7BF1C	CcU-4849	b-2302	2022-03-08 05:02:19	240.29	0	13, 41, 89...	183	42.5424	-170.347
2139A647-D965-AA81-3915-55DADA161CD3F	CcU-3127	b-2390	2022-03-07 10:53:46	119.68	0	79, 71	273	9.50453	128.879
ACCD2011A-A2B1-C365-41E1-2AB00C68147A	CcU-2980	b-2246	2022-03-05 20:41:20	60.07	1	2, 83	275	-54.4792	-82.7974
F28E106B-5418-4667-9514-2E2A8232EC6C	CcU-3358	b-2462	2022-03-05 06:54:37	114.89	1	79, 47, 97	272	-55.9496	-11.6066
0B880B7-9D66-1707-C-E48-9-DC7E7191485	CcU-3141	b-2338	2022-03-04 14:54:35	288.81	1	19, 41, 29, 3	272	23.3264	-13.6037
95EF6F78-3731-2845-EB21-1ABD2D016BCB	CcU-2959	b-2346	2022-03-04 02:48:32	192.13	0	31	92	16.5773	-123.777
3E495EC1-E1C5-26F1-0E3E-2D13EA2593A	CcU-4282	b-2302	2022-03-03 14:29:15	417.70	0	31, 97, 17, 1	227	-50.5725	-172.508
A1ABD82E-4E96-3D0D-2E4C-B19425290943	CcU-3344	b-2454	2022-03-02 19:42:05	443.11	1	53, 1, 67, 73	272	24.7104	163.19
D33B21EB-A61E-BD8C-SDE7-1DAA4C210AE6	CcU-2994	b-2254	2022-03-02 13:29:50	20.35	0	17, 13, 73	275	5.27302	5.06131
34AA1D64-2989-DE1C-8705-C66C8DD191DD	CcU-4219	b-2302	2022-03-02 05:30:41	275.45	0	13, 97, 37	166	-17.0772	-169.006
3B37BE91-420F-4361-23A8-3C5A42B998F7	CcU-4849	b-2278	2022-03-02 02:21:42	154.94	0	37	191	7.17413	-0.998084
77D7C634-E5D9-34AE-8A06-8AE5740A037	CcU-3484	b-2534	2022-03-01 19:12:42	155.57	0	59, 07, 2, 43	267	22.465	-06.0771

Action Output Time Action Response Duration / Fetch Time

112 15:55:36 SELECT * FROM transactions ORDER BY timestamp DESC 587 row(s) returned 0.0019 sec / 0.00054...

Query Completed

Experimentem una mica amb ROW_NUMBER

Local Instance 3306 - Warning - not supported

Administration Schemas

SCHEMAS

modelat_sql_roser

Tables

Companies

Credit_Cards

Transactions

Columns

id

card_id

business_id

timestamp

amount

declined

product_ids

user_id

lat

longitude

Indexes

Foreign Keys

Object Info Session

No object selected

```

1
2 •  SELECT card_id, timestamp, ROW_NUMBER () over (order by timestamp)
3   FROM transactions;

```

Result Grid Filter Rows: Search Export:

card_id	timestamp	ROW_NUMBER () over (order by timestamp)
CcU-4317	2021-03-17 02:55:49	1
CcU-4023	2021-03-17 16:23:23	2
CcU-3449	2021-03-18 05:42:48	3
CcU-4632	2021-03-21 16:22:42	4
CcU-2938	2021-03-23 01:12:06	5
CcU-3505	2021-03-23 01:58:34	6
CcU-3673	2021-03-23 02:17:50	7
CcU-4849	2021-03-23 03:02:51	8
CcU-3120	2021-03-23 15:43:37	9
CcU-4807	2021-03-25 19:56:52	10
CcU-4352	2021-03-25 21:48:18	11
CcU-4030	2021-03-26 02:09:01	12
CcU-4219	2021-03-26 13:46:28	13
CcU-3988	2021-03-26 15:26:48	14
CcU-3393	2021-03-27 10:25:42	15
CcU-2938	2021-03-28 05:01:44	16
CcU-3883	2021-03-29 11:04:24	17
CcU-4219	2021-03-29 11:38:38	18
CcU-3008	2021-03-29 16:15:13	19
CcU-3981	2021-03-29 23:54:35	20
CcU-3274	2021-03-30 17:05:54	21
CcU-4758	2021-03-30 17:21:34	22
CcU-3337	2021-03-31 01:22:49	23
CcU-2938	2021-04-01 07:27:49	24
CcU-3407	2021-04-02 05:17:46	25
CcU-4660	2021-04-03 02:46:06	26
CcU-2959	2021-04-04 04:51:04	27
CcU-2959	2021-04-04 11:53:52	28
CcU-4191	2021-04-05 07:39:08	29
CcU-4695	2021-04-06 17:06:22	30
CcU-2994	2021-04-06 17:24:44	31
CcU-3316	2021-04-07 19:18:12	32

Result 4 Read Only

Query Completed

I am el partition by

Local instance 3306 - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

modelat_sql_roser

- Tables
 - Companies
 - Credit_cards
 - Transactions
- Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- Indexes
- Foreign Keys

Object Info Session

No object selected

```

1 •  SELECT card_id, timestamp, ROW_NUMBER () over (partition by card_id order by timestamp)
2   FROM transactions;
3

```

Result Grid Filter Rows: Search Export:

card_id	timestamp	ROW_NUMBER () over (partition by card_id o...)
CcU-4856	2021-08-11 02:02:29	1
CcU-4849	2021-03-23 03:02:51	1
CcU-4849	2021-05-13 14:26:17	2
CcU-4849	2021-05-30 15:11:57	3
CcU-4849	2021-06-15 06:26:04	4
CcU-4849	2021-06-22 05:50:31	5
CcU-4849	2021-06-26 05:28:26	6
CcU-4849	2021-06-26 15:52:41	7
CcU-4849	2021-08-01 14:00:12	8
CcU-4849	2021-08-04 04:44:35	9
CcU-4849	2021-09-16 23:56:49	10
CcU-4849	2021-09-24 18:55:25	11
CcU-4849	2021-09-30 22:52:36	12
CcU-4849	2021-10-17 08:16:53	13
CcU-4849	2021-10-20 16:28:26	14
CcU-4849	2021-10-28 17:33:51	15
CcU-4849	2021-11-09 21:35:40	16
CcU-4849	2021-11-10 19:14:50	17
CcU-4849	2021-11-15 05:54:23	18
CcU-4849	2021-12-17 00:04:32	19
CcU-4849	2021-12-20 23:43:02	20
CcU-4849	2021-12-31 00:29:42	21
CcU-4849	2022-01-10 19:27:25	22
CcU-4849	2022-01-24 12:46:20	23
CcU-4849	2022-02-07 14:46:24	24
CcU-4849	2022-02-19 20:33:36	25
CcU-4849	2022-02-26 17:04:53	26
CcU-4849	2022-03-02 02:21:42	27
CcU-4849	2022-03-08 05:02:19	28
CcU-4849	2022-03-14 09:23:10	29
CcU-4842	2021-11-01 20:12:07	1
CcU-4835	2022-02-15 09:54:40	1

Result 5 Read Only

Query Completed

Busquem les targetes que tenen més de 2 transaccions

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

modelat_sql_roser

- Tables
 - Companies
 - Credit_cards
 - Transactions
- Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- Indexes
- Foreign Keys

Object Info Session

No object selected

```

1 •  Select card_id, COUNT(id)
2   FROM transactions
3   GROUP BY card_id
4   HAVING COUNT(id) > 2;

```

Result Grid Filter Rows: Search Export:

card_id	COUNT(id)
CcU-2938	24
CcU-2959	38
CcU-2994	39
CcU-3393	22
CcU-3981	17
CcU-4093	5
CcU-4191	25
CcU-4219	39
CcU-4849	29

Result 3 Read Only

Action Output

Time	Action	Response	Duration / Fetch Time
20 12:16:49	Select card_id, COUNT(id) FROM transactions GROUP BY card_id HAVING COUNT(id) > 2	9 row(s) returned	0.0012 sec / 0.00001...

Query Completed

I les transaccions només d'aquestes targetes que tenen més de 2 transaccions, ordenades cronològicament

The screenshot shows the MySQL Workbench interface. The top navigation bar includes tabs for Administration, Schemas, and the current database (modelat_sql_roser). The left sidebar displays the schema structure, including Tables (companies, credit_cards, transactions), Columns (id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, longitude), and Indexes/Foreign Keys.

The main area contains a query editor window with the following SQL code:

```
1
2
3 -- details transaccions de tgts que tenen més de 2 transaccions
4 • SELECT *
  FROM transactions
  WHERE card_id in (Select card_id
    FROM transactions
    GROUP BY card_id
    HAVING COUNT(id) > 2)
  ORDER BY timestamp DESC;
```

The results grid shows the output of the query:

id	card_id	business_id	timestamp	amount	declined	product_ids	user_id	lat	longitude
69D90229-AD26-43C3-5A8F-AD332D3B3E62	CcU-2959	b-2362	2022-03-16 14:01:36	329.03	0	67, 29	92	4.07537	129.723
2EB9012D-AD97-9E4D-E758-2CD994497A5	CcU-4191	b-2346	2022-03-14 13:51:53	305.47	0	89, 63, 59	96	4.10875	-60.6688
6ADF86D5-D03C-BCE6-D157-9C836F5BEF67	CcU-4849	b-2302	2022-03-10 23:21:10	20.33	0	1	190	26.4978	-54.1349
A0D5A78A-8929-4087-A87A7926BC18	CcU-2938	b-2362	2022-03-19 20:23:10	263.59	0	2, 3, 29	92	25.5502	-142.622
D1389777-AD7A-1856-1DE4-E2E94741D40C	CcU-2994	b-2326	2022-03-10 03:43:25	226.10	0	1, 5	127	-8.7274	37.98
F1A59B2A-8661-4045-BE80-6973CC0B91C	CcU-2938	b-2336	2022-03-09 20:53:59	229.65	0	79, 73	84	-65.124	31.0337
16B8A880-9A80-480C-BE80-6973CC0B91C	CcU-4849	b-2302	2022-03-09 05:02:19	240.29	0	13, 41, 89, 71	183	42.5424	-170.347
95897F93-9311-4945-BE80-6973CC0B91C	CcU-2938	b-2326	2022-03-09 20:23:50	26.13	0	31	95	16.5773	5.00131
D3D8215B-4616-4040-DE7-1D4A-C21A0E5	CcU-2994	b-2354	2022-03-12 13:29:50	17.13	0	17, 13, 73	92	5.57705	-0.998034
34AA1D49-2989-DE10-8705-C9C20D918D0	CcU-4219	b-2302	2022-03-09 05:00:41	275.45	0	18, 97, 37	166	-17.0772	-169.006
382379E9-1F04-4361-238A-3C5A49989F7	CcU-4849	b-2278	2022-03-02 02:21:42	154.94	0	37	191	7.17413	-0.998034
8D2CA58B-CNET-3238-CA4D-360323286748	CcU-2995	b-2346	2022-03-23 00:10:50	188.94	0	53, 29, 59	92	-36.5588	48.9359
A6240105-79C9-DD54-2841-016498CE6767	CcU-4849	b-2302	2022-02-24 17:04:53	420.59	0	47, 67, 53	179	-29.9044	-179.334
55166D02-D74C-6A63-8C54-8678476E4984	CcU-2938	b-2362	2022-02-24 01:04:42	186.12	0	97, 89, 83	89	-31.517	-168.575
BEEC8926-A272-9A3A-D0A8-B8FBC0FA875	CcU-2994	b-2326	2022-02-23 13:57:53	136.28	0	67, 37	123	65.9665	145.162
DATA7D7-44BA-678E-4836-465CB893F4E	CcU-4093	b-2362	2022-01-19 17:58:33	82.43	0	83	63	45.5819	94.5767
A02DC5D8-77C8-EA3-C098-32488538F6BD	CcU-3393	b-2482	2022-02-19 17:24:18	153.89	1	47, 61	272	9.96665	-108.709
C8832C8-7A60-CE22-AFD3-6A8B641C8D7C	CcU-4849	b-2302	2022-02-18 20:33:36	23.35	0	19	181	7.5702	-164.906

Below the results grid, there is an Action Output section with a table showing Time, Action, Response, Duration / Fetch Time, and a note that 238 rows were returned. The status bar at the bottom indicates "Query Completed".

I ja és més fàcil comprovar que el ROW NUMBER està fent el que volíem

The screenshot shows the MySQL Workbench application. The title bar indicates "Local instance 3306 (modelat_sql_rosser) - Warning - not supported". The main window has tabs for Administration, Schemas, and the current object. The Schemas tab is selected, showing the schema "modelat_sql_rosser" which contains tables like companies, credit_cards, transactions, and columns such as id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, and longitude. Below the schema tree is a "Result Grid" showing the output of a complex query involving multiple joins and window functions. The right side of the interface features a vertical toolbar with icons for various tools like Query Editor, Field Types, and Query Stats.

```
1
2 •  SELECT card_id, timestamp, ROW_NUMBER () over (partition by card_id order by timestamp)
3   FROM transactions
4   WHERE card_id in (SELECT card_id
5     FROM transactions
6     WHERE card_id in (Select card_id
7       FROM transactions
8       GROUP BY card_id
9       HAVING COUNT(id) > 2)
10      ORDER BY timestamp DESC)
11
12 ;
```

card_id	timestamp	ROW_NUMBER () over (partition by card_id o...)
CctU-2938	2021-09-18 00:31:49	17
CctU-2938	2021-09-24 08:33:44	18
CctU-2938	2021-09-24 08:33:45	19
CctU-2938	2021-10-17 03:52:48	20
CctU-2938	2021-10-24 01:29:53	21
CctU-2938	2022-02-24 11:01:42	22
CctU-2938	2022-03-09 20:53:59	23
CctU-2938	2022-03-12 09:23:10	24
CctU-2959	2021-04-04 04:51:04	1
CctU-2959	2021-04-04 11:53:52	2
CctU-2959	2021-04-14 16:55:53	3
CctU-2959	2021-04-15 13:37:18	4
CctU-2959	2021-04-16 06:35:20	5
CctU-2959	2021-04-17 05:30:17	6
CctU-2959	2021-04-21 23:05:57	7
CctU-2959	2021-04-22 22:03:25	8
CctU-2959	2021-04-29 07:06:10	9
CctU-2959	2021-05-23 02:46:05	10

Result 1

Action Output

Time	Action	Response	Duration / Fetch Time
12:24:04	SELECT card_id, timestamp, ROW_NUMBER () over (partition by card_id order by timestamp DESC) AS RN FROM transactions WHERE card_id IN (SELECT card_id FROM transactions WHERE card_id IN (SELECT card_id FROM transactions GROUP BY card_id HAVING COUNT(id) > 2) ORDER BY timestamp DESC)	238 row(s) returned	0.0051 sec / 0.00000...

Query Completed

Ara treiem la llista de les últimes transaccions per tarjeta, però només per a les tarjetes amb tres o més transaccions

The screenshot shows the MySQL Workbench interface with a query editor and results grid. The query retrieves the last three transactions for each card_id from the transactions table, ordered by timestamp.

```

1
2
3 • SELECT *
4   FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ultimas_transacciones
5        FROM transactions) AS nr_transaccion
6   WHERE ultimas_transacciones <=3;
7

```

The results grid displays the following data:

card_id	timestamp	declined	ultimas_transacciones
CcU-2988	2021-08-22 01:12:00	0	1
CcU-2988	2021-08-28 05:01:44	0	2
CcU-2988	2021-04-01 07:27:49	0	3
CcU-2945	2021-06-15 00:26:29	1	1
CcU-2945	2022-02-04 15:52:56	0	2
CcU-2952	2021-05-06 05:33:39	1	1
CcU-2952	2022-01-30 15:16:36	0	2
CcU-2959	2021-04-04 04:51:04	0	1
CcU-2959	2021-04-04 11:53:52	0	2
CcU-2959	2021-04-14 16:55:05	0	3
CcU-2966	2021-06-02 06:19:00	1	1
CcU-2966	2021-10-18 00:12:03	0	2
CcU-2973	2021-01-05 09:44:41	1	1
CcU-2973	2022-01-05 01:44:48	0	2
CcU-2980	2021-08-10 09:14:49	0	1
CcU-2980	2022-03-05 20:41:20	1	2
CcU-2987	2021-05-18 12:03:25	1	1
CcU-2987	2022-01-06 21:25:27	0	2
CcU-2994	2021-04-06 17:24:44	0	1
CcU-2994	2021-04-23 13:07:58	0	2
CcU-2994	2021-04-25 19:11:52	0	3
CcU-3001	2021-10-13 11:30:20	1	1
CcU-3001	2021-12-20 02:01:10	0	2
CcU-3008	2021-03-29 16:15:13	1	1

The execution plan shows the following steps:

- Step 1: SELECT * FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ultimas_transacciones FROM transactions) AS nr_transaccion
- Step 2: WHERE ultimas_transacciones <=3;

Execution Plan details:

- Action Output: 55 rows, 12:43:41, Duration / Fetch Time: 0.0052 sec / 0.00005...
- Action: SELECT * FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ultimas_transacciones FROM transactions) AS nr_transaccion WHERE ultimas_transacciones <=3;

I sumem el total dels resultats de declined per a cada targeta.

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

modelat_sql_roser

- Tables
 - companies
 - credit_cards
 - transactions
 - Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- Indexes
- Foreign Keys

Object Info Session

No object selected

```

1
2 •   SELECT card_id, SUM(declined) AS total_declined_3ultimas_trans
3   FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ultimas_transacciones
4   FROM transactions) AS nr_transaccion
5   WHERE ultimas_transacciones <=3
6   GROUP BY card_id
7   ORDER BY card_id ASC;
8

```

Result Grid Filter Rows: Search Export:

card_id	total_declined_3ultimas_trans
CcU-2938	0
CcU-2955	1
CcU-2952	1
CcU-2959	0
CcU-2966	1
CcU-2973	1
CcU-2980	1
CcU-2987	1
CcU-2994	0
CcU-3001	1
CcU-3008	1
CcU-3015	1
CcU-3022	1
CcU-3029	1
CcU-3056	1
CcU-3063	1
CcU-3050	1
CcU-3057	1
CcU-3064	1
CcU-3071	1
CcU-3078	1
CcU-3085	1

Result 22

Action Output

Time	Action	Response	Duration / Fetch Time
73 13:05:22	SELECT card_id, SUM(declined) AS total_declined_3ultimas_trans FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ultimas_transacciones) AS nr_transaccion WHERE ultimas_transacciones <=3 GROUP BY card_id ORDER BY card_id ASC;	275 row(s) returned	0.0074 sec / 0.00004...

Query Completed

Ara afegirem la columna d'estat amb el case

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

modelat_sql_roser

- Tables
 - companies
 - credit_cards
 - transactions
 - Columns
 - id
 - card_id
 - business_id
 - timestamp
 - amount
 - declined
 - product_ids
 - user_id
 - lat
 - longitude
- Indexes
- Foreign Keys

Object Info Session

No object selected

```

1
2
3 # ordre_transaccions = numeració de últimes transaccions per targeta, on 1 es la última transacció, 2 penúltima, etc
4 # taula_ordre_transaccions = taula amb les transaccions ordenades de més recent a més antiga
5
6 # estat_en_numero = estat de la targeta en el 3 vol dir que la targeta està inactiva. Un 2, 1 o 0 que està activa.
7 # taula_estat_en_numero = taula que mostra l'estat de les targetes a través del número
8
9 •   SELECT card_id, estat_en_numero
10  FROM (SELECT card_id, SUM(declined) AS estat_en_numero
11    FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions
12    FROM transactions) AS taula_ordre_transaccions
13   WHERE ordre_transaccions <=3
14   GROUP BY card_id
15   ORDER BY card_id ASC) AS taula_estat_en_numero
16
17 ;
18

```

Result Grid Filter Rows: Search Export:

card_id	estat_en_numero
CcU-2952	1
CcU-2959	0
CcU-2966	1
CcU-2973	1
CcU-2980	1
CcU-2987	1
CcU-2994	0
CcU-3001	1
CcU-3008	1
CcU-3015	1

Result 6

Action Output

Time	Action	Response	Duration / Fetch Time
81 13:57:56	SELECT card_id, estat_en_numero FROM (SELECT card_id, SUM(declined) AS estat_en_numero FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions) AS taula_ordre_transaccions WHERE ordre_transaccions <=3 GROUP BY card_id ORDER BY card_id ASC) AS taula_estat_en_numero	275 row(s) returned	0.0075 sec / 0.00003...

Query Completed

Li fiquem la columna d'estat

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas Schemas SQL File 10* SQL File 11* SQL File 12* SQL File 13* SQL File 8* SQL File 14* SQL File 9* SQL File 10* SQL File 14*

Filter objects

Schemas

modelat_sql_roser

Tables

- companies
- credit_cards

transactions

Columns

- id
- card_id
- business_id
- timestamp
- amount
- declined
- product_ids
- user_id
- lat
- longitude

Indexes

Foreign Keys

Don't Limit

```
1
2
3 # ordre_transaccions = numeració de últimes transaccions per targeta, on 1 és la última transacció, 2 penúltima, etc
4 # taula_ordre_transaccions = taula amb les transaccions ordenades de més recent a més antiga
5
6 # estat_en_numero = estat de la tageta en el 3 vol dir que la targeta està inactiva. Un 2, 1 o 0 que està activa.
7 # taula_estat_en_numero = taula que mostra l'estat de les targetes a través del número
8
9 * SELECT card_id, estat_en_numero,
10 CASE
11 When estat_en_numero = 3 Then 'Inactiva'
12 Else 'Activa'
13 end AS Status
14 FROM (SELECT card_id, SUM(declined) AS estat_en_numero
15   FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions
16     FROM transactions) AS taula_ordre_transaccions
17   WHERE ordre_transaccions <=3
18   GROUP BY card_id
19   ORDER BY card_id ASC) AS taula_estat_en_numero
20
21 ;
```

100% 33:9

Object Info Session

No object selected

Result Grid Filter Rows: Search Export:

card_id	estat_en_numero	Status
CcU-2938	0	Activa
CcU-2945	1	Activa
CcU-2952	1	Activa
CcU-2959	0	Activa
CcU-2966	1	Activa
...

Result 7

Action Output

Time	Action	Response	Duration / Fetch Time
82 14:00:23	SELECT card_id, estat_en_numero, CASE When estat_en_numero = 3 Then 'inactiva' Else... 275 row(s) returned	275 row(s) returned	0.0091 sec / 0.00003...

Query Completed

Li treiem la columnà que ens sobra

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas

SCHEMAS

modelat_sql_roser

Tables

- companies
- credit_cards
- transactions

Columns

- id
- card_id
- business_id
- timestamp
- amount
- declined
- product_ids
- user_id
- lat
- longitude

Indexes

Foreign Keys

Object Info Session

No object selected

```

1
2 •  SELECT card_id,
3   CASE
4     When estat_en_numero = 3 Then 'Inctiva'
5     Else 'Activa'
6   end AS Status
7   FROM (SELECT card_id, SUM(declined) AS estat_en_numero
8         FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions
9               FROM transactions) AS taula_ordre_transaccions
10      WHERE ordre_transaccions <=3
11      GROUP BY card_id
12    ORDER BY card_id ASC) AS taula_estat_en_numero
13

```

Result Grid

card_id	Status
CcU-2938	Activa
CcU-2945	Activa
CcU-2952	Activa
CcU-2959	Activa
CcU-2966	Activa
CcU-2973	Activa
CcU-2980	Activa
CcU-2987	Activa
CcU-2994	Activa
CcU-3001	Activa
CcU-3008	Activa
CcU-3015	Activa
CcU-3022	Activa
CcU-3029	Activa
CcU-3036	Activa
CcU-3043	Activa
CcU-3050	Activa

Action Output

Time	Action	Response	Duration / Fetch Time
92 17:44:55	SELECT card_id, CASE When estat_en_numero = 3 Then 'Inctiva' Else 'Activa'...	275 row(s) returned	0.0049 sec / 0.00002...

Query Completed

Finalment, ho convertirem en una vista en comptes de taula. Així, si s'afegeixen transaccions s'actualitzaran els estatus automàticament

Local instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas

SCHEMAS modelat_sql_roser

Tables: companies, credit_cards, transactions, users

Views: estat_targetes

Stored Procedures: sakila

Functions: transactions

World: world

Object Info Session

View: estat_targetes

Columns:

card_id	varchar(15)
Status	varchar(7)

100% 1:16

Action Output Response Duration / Fetch Time

93 17:56:33 CREATE VIEW estat_targetes AS SELECT card_id, CASE When estat_en_numero = 3 Then 'Inctiva' Else 'Activa' end AS Status FROM (SELECT card_id, SUM(declined) AS estat_en_numero FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions FROM transactions) AS taula_ordre_transaccions WHERE ordre_transaccions <=3 GROUP BY card_id ORDER BY card_id ASC) AS taula_estat_en_numero;

15 0 row(s) affected 0.068 sec

Query Completed

Local instance 3306 (modelat_sql_roser) - Warning - not supported MySQL Model EER Diagram

Administration Schemas

SCHEMAS modelat_sql_roser

Tables: companies, credit_cards, pont_trans_prod

Columns: transaccio, producte

Indexes

Foreign Keys: fk_producte, fk_transaccio

Triggers

products

Object Info Session

Connection Details

Name: Local instance 3306

Host: localhost

Port: 3306

Login: root

User: root@localhost

SSL: TLS_AES_128_GCM_S

cipher: HA256

Server

Product: Homebrew

Version: 9.0.1

Connector

Version: C++ 9.0.0

Result Grid Filter Rows: Search Export:

100% 21:2

card_id Status

CcU-2945	Activa
CcU-2952	Activa
CcU-2959	Activa
CcU-2966	Activa
CcU-2973	Activa
CcU-2980	Activa
CcU-2987	Activa
CcU-2994	Activa
CcU-3001	Activa
CcU-3008	Activa
CcU-3015	Activa
CcU-3022	Activa
CcU-3029	Activa
CcU-3036	Activa
CcU-3043	Activa
CcU-3050	Activa
CcU-3057	Activa
CcU-3064	Activa
CcU-3071	Activa
CcU-3078	Activa
CcU-3085	Activa
CcU-3092	Activa
CcU-3099	Activa
CcU-3106	Activa
CcU-3113	Activa
CcU-3120	Activa
CcU-3127	Activa
CcU-3134	Activa
CcU-3141	Activa

Result Grid Form Editor Field Types Query Stats Execution Plan

estat_targetes 2 Read Only

Action Output Response Duration / Fetch Time

262 13:57:53 SELECT * FROM estat_targetes 275 row(s) returned 0.0089 sec / 0.0000...

Query Completed

- Exercici 1: targetes actives

Quantes targetes estan actives?

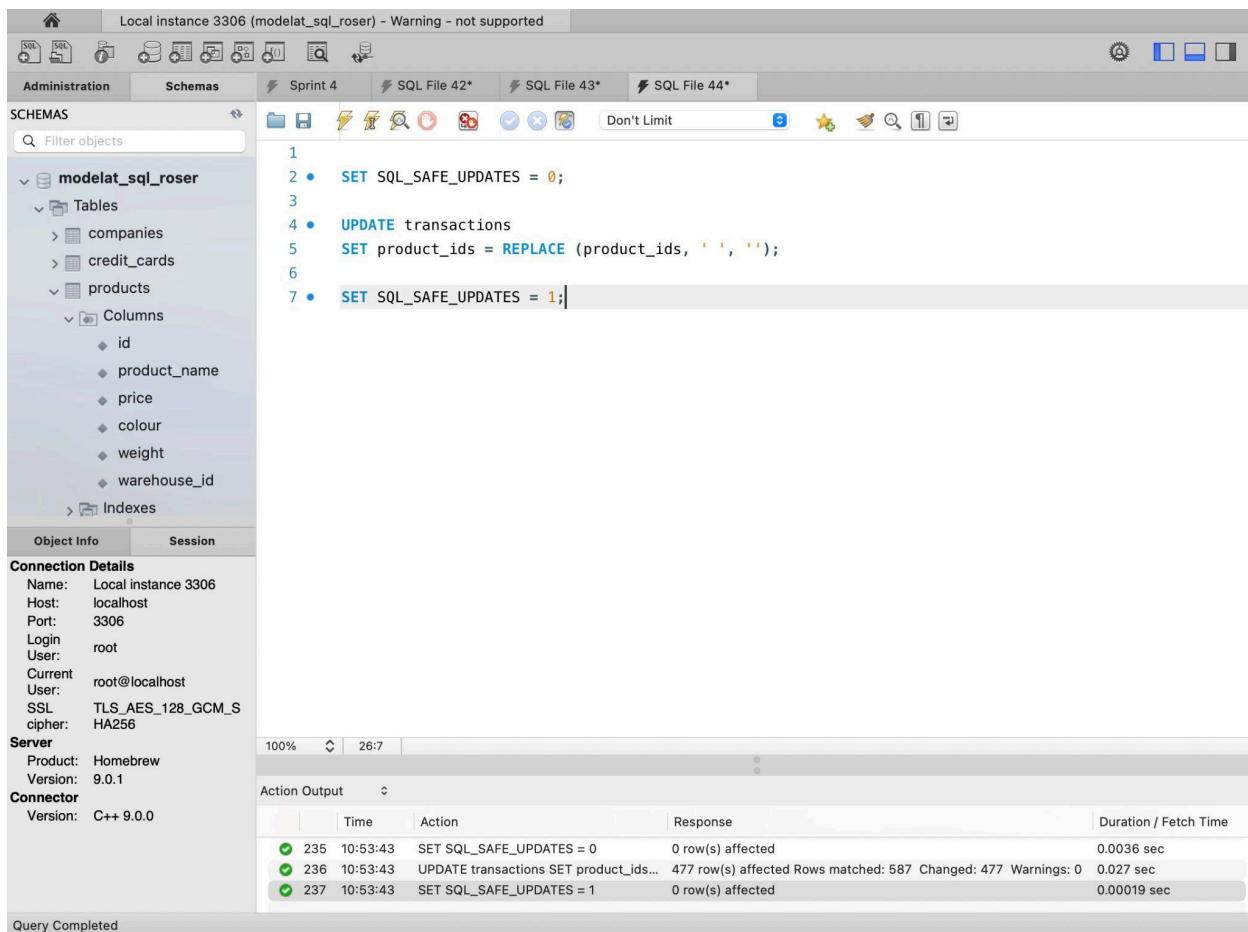
Totes les targetes estan actives 275

Nivell 3

Crea una taula amb la qual puguem unir les dades del nou arxiu products.csv amb la base de dades creada, tenint en compte que des de transaction tens product_ids. Genera la següent consulta:

Per a poder unir el nou arxiu, necessitem una taula pont que indexi les relacions entre transaccions i productes.

- Reemplaçar espais



The screenshot shows the MySQL Workbench interface. The left sidebar displays the schema structure for 'modelat_sql_roser'. The 'Tables' section contains 'companies', 'credit_cards', 'products', and 'Indexes'. The 'Products' table has columns: id, product_name, price, colour, weight, and warehouse_id. The right pane shows the SQL editor with the following code:

```
1
2 • SET SQL_SAFE_UPDATES = 0;
3
4 • UPDATE transactions
5   SET product_ids = REPLACE (product_ids, ' ', ',');
6
7 • SET SQL_SAFE_UPDATES = 1;
```

Below the editor is the 'Object Info' tab, which shows connection details: Name: Local instance 3306, Host: localhost, Port: 3306, Login User: root, Current User: root@localhost, SSL: TLS_AES_128_GCM_S, cipher: HA256. The 'Session' tab is also visible. At the bottom, the 'Server' and 'Connector' sections provide information about the MySQL server and connector version. The results pane shows the execution log:

Action	Time	Response	Duration / Fetch Time
235 10:53:43 SET SQL_SAFE_UPDATES = 0		0 row(s) affected	0.0036 sec
236 10:53:43 UPDATE transactions SET product_ids...		477 row(s) affected Rows matched: 587 Changed: 477 Warnings: 0	0.027 sec
237 10:53:43 SET SQL_SAFE_UPDATES = 1		0 row(s) affected	0.00019 sec

Query Completed

- Carregar taula productes

Creem la taula productes

The screenshot shows the MySQL Workbench interface with the following details:

- Connection:** Local instance 3306 (modelat_sql_rosen) - Warning - not supported
- Schemas:** modelat_sql_rosen
- Tables:** products
- Object Info:**
 - Connection Details:** Name: Local instance 3306, Host: localhost, Port: 3306, Login: root, Current User: root@localhost, SSL: TLS_AES_128_GCM_S, cipher: HA256.
 - Server:** Product: Homebrew, Version: 9.0.1
 - Connector:** Version: C++ 9.0.0
- SQL Editor:**

```

1 • CREATE TABLE IF NOT EXISTS products (
2   id VARCHAR(15) PRIMARY KEY
3 );
4

```
- Action Output:**

Action	Time	Response	Duration / Fetch Time
CREATE...	15:42:42	0 row(s) affected	0.0100 sec

Li afegim les columnes

The screenshot shows the MySQL Workbench interface with the following details:

- Connection:** Local instance 3306 (modelat_sql_rosen) - Warning - not supported
- Schemas:** modelat_sql_rosen
- Tables:** products
- Object Info:**
 - Connection Details:** Name: Local instance 3306, Host: localhost, Port: 3306, Login: root, Current User: root@localhost, SSL: TLS_AES_128_GCM_S, cipher: HA256.
 - Server:** Product: Homebrew, Version: 9.0.1
 - Connector:** Version: C++ 9.0.0
- SQL Editor:**

```

1 • ALTER TABLE products
2   ADD product_name VARCHAR(15),
3   ADD price VARCHAR(15),
4   ADD colour VARCHAR(15),
5   ADD weight FLOAT,
6   ADD warehouse_id VARCHAR(15);
7

```
- Action Output:**

Action	Time	Response	Duration / Fetch Time
ALTER...	15:52:51	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.0078 sec

I insertem les dades

```

    Local instance 3306 (modelat_sql_rosser) - Warning - not supported

Administration Schemas Sprint 4 SQL File 37* SQL File 38*
SCHEMAS Filter objects
modelat_sql_rosser Tables Don't Limit
  Tables
    companies
    credit_cards
  products Columns
    id
    product_name
    price
    colour
    weight
    warehouse_id
  Indexes
  Foreign Keys

Object Info Session
Connection Details
Name: Local instance 3306
Host: localhost
Port: 3306
Login: root
User: root@localhost
SSL: TLS_AES_128_GCM_S
cipher: HA256
Server
Product: Homebrew
Version: 9.0.1
Connector
Version: C++ 9.0.0
100% 18:4

Action Output
Time Action Response Duration / Fetch Time
198 16:01:19 LOAD D... 0 row(s) affected Records: 0 Deleted: 0 Skipped: 0 Warnings: 0 0.0022 sec

Query Completed
  
```

Veiem que estiguin bé

```

    Local instance 3306 (modelat_sql_rosser) - Warning - not supported

Administration Schemas Sprint 4* SQL File 37* SQL File 38* products products - Table
SCHEMAS Filter objects
modelat_sql_rosser Tables Don't Limit
  Tables
    companies
    credit_cards
  products Columns
    id
    product_name
    price
    colour
    weight
    warehouse_id
  Indexes
  Foreign Keys

Object Info Session
Connection Details
Name: Local instance 3306
Host: localhost
Port: 3306
Login: root
User: root
Current User: root@localhost
SSL: TLS_AES_128_GCM_SH
cipher: A256
Server
Product: Homebrew
Version: 9.0.1
Connector
Version: C++ 9.0.0
100% 1:2

Result Grid Filter Rows: Search Edit: Export/Import:
  
```

id	product_name	price	colour	weight	warehouse_id
10	Karstark Dorne	\$119.52	#141414	2.4	WH-5
100	south duell	\$40.43	#6db6d6	3	WH-95
11	Karstark Dorne	\$49.70	#141414	2.7	WH-6
12	duel Direwolf	\$181.60	#a8a8a8	2.1	WH-7
14	Direwolf	\$147.53	#4c4c4c	2	WH-9
15	Stannis warden	\$194.29	#dbdbdb	1.5	WH-10
16	the duel warden	\$180.91	#666666	3	WH-11
18	Karstark warden	\$148.91	#4c4c4c	0.8	WH-13
19	dooko solo	\$60.33	#3f3f3f	0.6	WH-14
2	Tarly Stark	\$9.24	#919191	2	WH-3
20	warden Karstark	\$61.96	#005555	1.4	WH-15
21	duel Direwolf	\$86.90	#e2e2e2	1.2	WH-16
22	duel Karstark	\$167.53	#3f3f3f	1.0	WH-20
26	Stark Karstark	\$53.01	#898989	2	WH-21
30	Karstark warden	\$79.53	#606060	0.8	WH-25
31	Lannister	\$85.02	#3f3f3f	0.6	WH-26
32	north	\$178.28	#ffffff	1.4	WH-27

Action Output

Time	Action	Response
209	16:04:04	SELECT * FROM modelat_sql_rosser.products
		59 row(s) returned

Query Completed

- Llista de productes

Treiem la llista de productes, hi ha 59 i no estan repetits

The screenshot shows the MySQL Workbench interface. In the top navigation bar, it says "Local Instance 3306 (modelat_sql_rose) - Warning - not supported". Below the bar are tabs for Administration, Schemas, and the current tab, SQL. The SQL tab contains the following code:

```
1 • SELECT id
2   FROM products
3   ORDER BY id ASC;
```

The result grid shows the following data:

id
10
100
11
12
14
15
16
18
19
2
20
21
25
26
30
31
32
33

Below the result grid, the "Session" tab is selected, showing connection details and server information. The "Action Output" section shows two rows of query logs:

Action	Time	Action	Response	Duration / Fetch Time
223	16:13:30	SELECT distinct id FROM products ORDER BY id ASC	59 row(s) returned	0.0014 sec / 0.00001...
224	16:13:47	SELECT id FROM products ORDER BY id ASC	59 row(s) returned	0.00087 sec / 0.0000...

At the bottom, a message says "Query Completed".

Ara buscarem aquests IDs en la taula de transactions. Utilitzem FIND IN SET Joining Tables
Based on Comma-Separated Values <https://five.co/blog/mysql-find-in-set/>

Local Instance 3306 (modelat_sql_roser) - Warning - not supported

Administration Schemas Sprint 4* SQL File 42* SQL File 43* SQL File 45* SQL File 46*

Filter objects Filter Rows: Search Export:

```

1
2 •  SELECT transactions.id, products.id
3   FROM products
4   JOIN transactions ON FIND_IN_SET(products.id, transactions.product_ids)
5 ;

```

Result Grid Filter Rows: Search Export:

id	id
02C6201E-090A-1859-B4EE-8BD296603B02	71
02C6201E-090A-1859-B4EE-8BD296603B02	19
0468A42E-47CF-8D24-FD01-C0B888713128	97
0468A42E-47CF-8D24-FD01-C0B888713128	47
0468A42E-47CF-8D24-FD01-C0B888713128	43
063FB7A79-93E9C-6F6FB-29F7-25726D1764A5	67
063FB7A79-93E9C-6F6FB-29F7-25726D1764A5	5
063FB7A79-93E9C-6F6FB-29F7-25726D1764A5	47
063FB7A79-93E9C-6F6FB-29F7-25726D1764A5	31
0668296C-CD9A-4883-76BC-E24C44FC8C...	89
0668296C-CD9A-4883-76BC-E24C44FC8C...	83
06CD9AA5-9B42-0684-DDDD-A5E394FEB...	43
06CD9AA5-9B42-0684-DDDD-A5E394FEB...	31
07A46D48-31A3-7E87-6589-0DA902AD109F	47
09DE92CE-6F27-2B87-13B5-938582B388E2	67
0A476ED9-0C13-19E2-F878-D3563924B539	11
0BEB80B-0D66-1707-C4E8-B9DC7E71914B5	19
0C7C3A33-9947-38C1-B46D-7BE3D0D17598	89
0C7C3A33-9947-38C1-B46D-7BE3D0D17598	31
0CE957A6-CCAA-2B7A-6839-AA4B1B324B53	83
0CE957A6-CCAA-2B7A-6839-AA4B1B324B53	73
0CE957A6-CCAA-2B7A-6839-AA4B1B324B53	43
0DD2E608-5C9E-01B3-4999-B99F43AD735A	47
1026D2A4-8929-31F1-8250-D7BA0B05C13D2	97

Result 1 Read Only

Action Output Time Action Response Duration / Fetch Time

242 12:21:08 SELECT transactions.id, products.id FROM products JOIN transactions ON FIND_IN_SET(products.id, transactions.product_ids) 723 row(s) returned 0.034 sec / 0.0044 sec

Query Completed

I creem una taula del resultat

The screenshot shows the MySQL Workbench interface. In the left sidebar under 'SCHEMAS', the 'modelat_sql_roser' schema is selected. Inside this schema, the 'Tables' node is expanded, showing 'companies', 'credit_cards', 'pont_trans_prod', and 'products'. The 'pont_trans_prod' table is selected, and its details are shown in the main pane. The SQL code for creating the table is:

```
1
2 • CREATE TABLE pont_trans_prod AS
3   SELECT transactions.id AS transaccio, products.id AS producte
4   FROM products
5   JOIN transactions ON FIND_IN_SET(products.id, transactions.product_ids)
6 ;
```

The 'Object Info' tab is selected in the bottom-left corner. In the bottom right, the 'Action Output' section shows the execution results:

Action	Time	Response	Duration / Fetch Time
CREATE TABLE pont_trans_prod AS SELECT transactions.id AS transaccio, products...	244 12:24:42	723 row(s) affected Records: 723 Duplicates: 0 Warnings: 0	0.088 sec

Below the table, it says 'Query Completed'.

Afegim les relacions a les altres taules

Local instance 3306 (modelat_sql_rosen) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

Tables

- > companies
- > credit_cards
- > pont_trans_prod
- Columns
 - transaccio
 - producte
- Indexes
- Foreign Keys
 - fk_transaccio**
 - Triggers
 - products
 - Columns
 - id

Object Info Session

Connection Details

Name: Local instance 3306
 Host: localhost
 Port: 3306
 Login: root
 User: root@localhost
 Current User: root@localhost
 SSL: TLS_AES_128_GCM_S
 cipher: HA256

Server Product: Homebrew Version: 9.0.1

Connector Version: C++ 9.0.0

Action Output 100% 67:2

Action	Time	Response	Duration / Fetch Time
ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_transaccio foreign key (transaccio)	245 12:32:12	723 row(s) affected Records: 723 Duplicates: 0 Warnings: 0	0.051 sec

Query Completed

```

1 • ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_transaccio foreign key (transaccio)
2 REFERENCES transactions (id) ON DELETE CASCADE ON UPDATE CASCADE;

```

Local instance 3306 (modelat_sql_rosen) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

Tables

- > companies
- > credit_cards
- > pont_trans_prod
- Columns
 - transaccio
 - producte
- Indexes
- Foreign Keys
 - fk_producte
 - fk_transaccio**
 - Triggers
 - products
 - Columns

Object Info Session

Connection Details

Name: Local instance 3306
 Host: localhost
 Port: 3306
 Login: root
 User: root@localhost
 Current User: root@localhost
 SSL: TLS_AES_128_GCM_S
 cipher: HA256

Server Product: Homebrew Version: 9.0.1

Connector Version: C++ 9.0.0

Action Output 100% 63:2

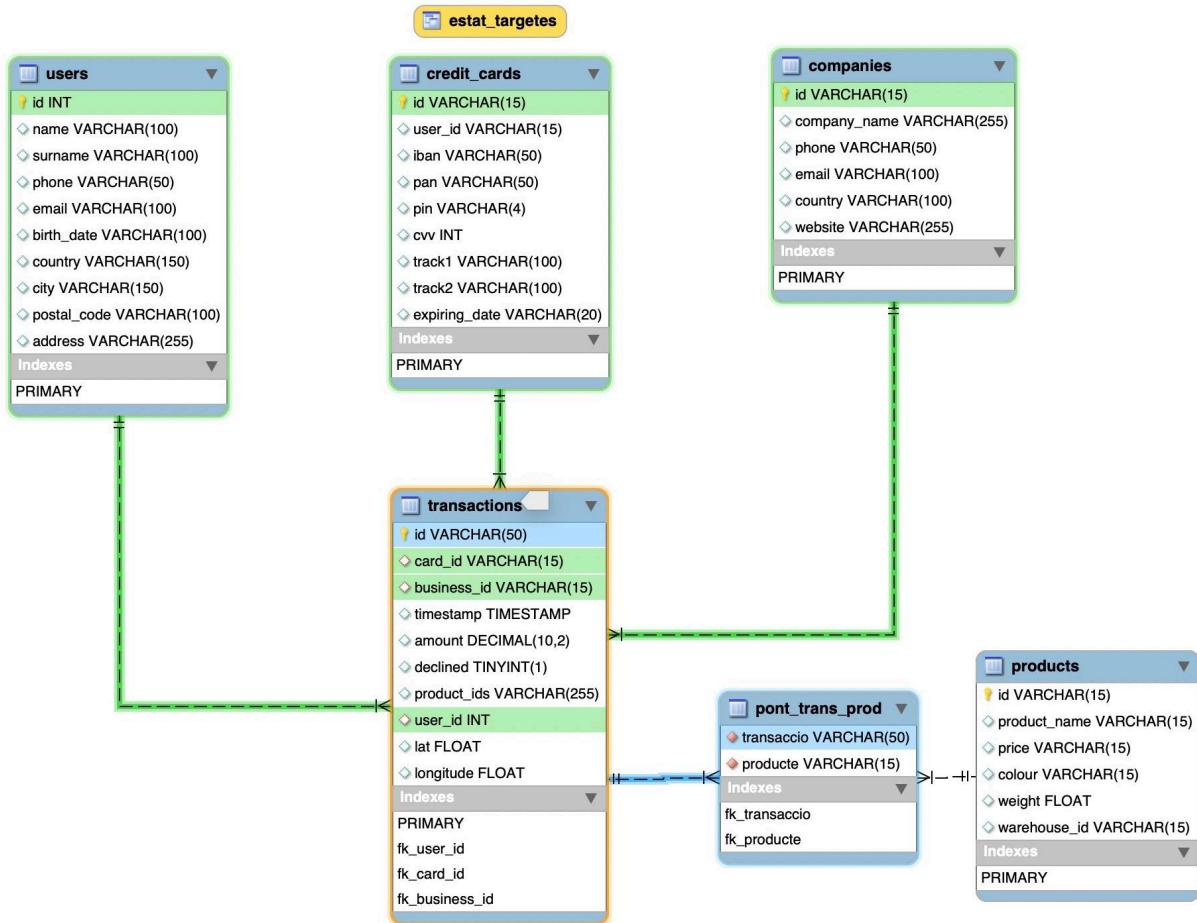
Action	Time	Response	Duration / Fetch Time
ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_producte foreign key (producte)	246 12:33:28	723 row(s) affected Records: 723 Duplicates: 0 Warnings: 0	0.044 sec

Query Completed

```

1 • ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_producte foreign key (producte)
2 REFERENCES products (id) ON DELETE CASCADE ON UPDATE CASCADE;

```



Exercici 1: vendes per producte

Necessitem conèixer el nombre de vegades que s'ha venut cada producte.

Local Instance 3306 (modelat_sql_roser) - Warning - not supported MySQL Model* EER Diagram

Administration Schemas Sprint 4* SQL File 48* SQL File 49* SQL File 50* SQL File 51*

SCHEMAS Filter objects

modelat_sql_roser

- Tables
 - companies
 - credit_cards
 - pont_trans_prod
 - Columns
 - transaccio
 - producte
 - Indexes
 - Foreign Keys
 - fk_producte
 - fk_transaccio
 - Triggers
- products

Object Info Session

Connection Details

Name: Local instance 3306
 Host: localhost
 Port: 3306
 Login: root
 User:
 Current User: root@localhost
 SSL: TLS_AES_128_GCM_S
 cipher: HA256

Server

Product: Homebrew
 Version: 9.0.1

Connector

Version: C++ 9.0.0

1
 2
 3 • SELECT products.product_name, COUNT(transaccio) AS numero_vendes
 4 FROM pont_trans_prod
 5 JOIN products ON products.id = pont_trans_prod.producte
 6 GROUP BY products.product_name;

Result Grid Filter Rows: Search Export:

product_name	numero_vendes
Tully	54
Dorne	49
dooku solo	49
jinn Winterfell	61
Tully	62
duel	65
Winterfell	68
skywalker ewok	100
Lannister	47
duel tourney	57
Karstark Dorne	48
Dorne bastard	47
Tarly Stark	65

Result 12 Read Only

Action Output Time Action Response Duration / Fetch Time

260	12:57:12	SELECT products.product_name, COUNT(transaccio) AS numero_vendes FROM pon...	12 row(s) returned	0.021 sec / 0.000014...
-----	----------	--	--------------------	-------------------------

Query Completed

Result Grid Form Editor Field Types Query Stats Execution Plan