

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.

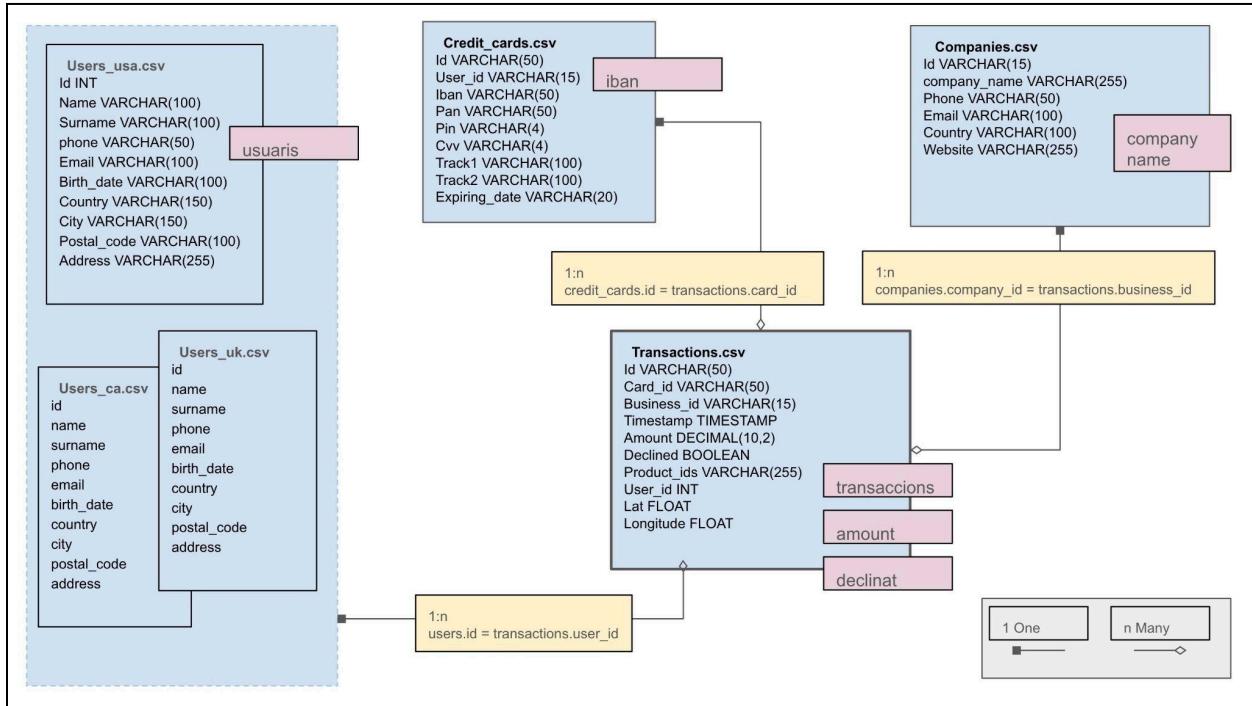
Nivell 1

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. 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 qui és el usuari que fa la compra.

Deixarem de banda la taula de producte perquè és una relació molts a molts i ho solucionarem en el nivell 3.

Afegim en rosa les dades que ens demanaran després en els exercicis i en groc la relació entre taules. Hem fet el grafic en power point, per això hem hagut d'inventar els símbols per a 1 i n. Un usuari pot tenir moltes compres, una targeta de crèdit es pot fer servir multiples vegades i les empreses poden tenir moltes vendes. Per això les relacions amb la taula transactions són de 1 a molts.



Començarem per crear la base de dades i la taula companies

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

Schemas Administration Schemas

FUNCTIONS modelat_sql_roser2

Tables

Companies

Columns

id company_name phone email country website

Indexes

Foreign Keys

Triggers

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_S
- Cipher: HA256

Server

- Product: Homebrew
- Version: 9.0.1

Connector

- Version: C++ 9.0.0

SQL File 48* SQL File 49* SQL File 50* SQL File 51* Sprint4-2* SQL File 53* SQL File 54

Don't Limit

```

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 );

```

Action Output

| | 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, showing its columns: id, user_id, iban, pan, pin, cvv, track1, track2, and expiring_date. The 'Object Info' panel displays connection details for 'Local instance 3306' and server information for 'Homebrew' version 9.0.1. The 'Session' tab is active, showing the SQL code for creating the 'credit_cards' table:

```

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 'Session' tab also shows the execution results:

| Action | Time | Action | Response | Duration / Fetch Time |
|--------|----------|--|-------------------|-----------------------|
| 282 | 15:32:04 | CREATE TABLE IF NOT EXISTS credit_cards (id VARCHAR(50) PRIMARY KEY, user_id VARCHAR(15), ...) | 0 row(s) affected | 0.013 sec |

Query Completed

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 'users'. The 'users' table is currently selected, showing its columns: id, name, surname, phone, email, birth_date, country, city, postal_code, and address. The 'Object Info' panel displays connection details for 'Local instance 3306' and server information for 'Homebrew' version 9.0.1. The 'Session' tab is active, showing the SQL code for creating the 'users' table:

```

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 'Session' tab also shows the execution results:

| Action | Time | Action | Response | Duration / Fetch Time |
|--------|----------|---|-------------------|-----------------------|
| 282 | 15:35:02 | CREATE TABLE IF NOT EXISTS users (id INT PRIMARY KEY, name VARCHAR(100), surname VARCHAR(100), ...) | 0 row(s) affected | 0.016 sec |

Query Completed

La taula transactions

The screenshot shows the MySQL Workbench interface. On the left, the 'Schemas' tree view shows the 'transactions' schema selected. Under 'Columns', the following fields are listed:

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

The 'Script' tab displays the following SQL code:

```
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 also visible at the bottom of the interface.

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

The screenshot shows the MySQL Workbench interface. The left sidebar displays the database schema with two schemas: 'modelat_sql_rosier' and 'modelat_sql_rosser2'. The 'Tables' section under 'modelat_sql_rosser2' lists 'companies', 'credit_cards', and 'transactions'. The 'Transactions' section shows a single transaction ID 333 that has completed a 'LOAD DATA INFILE' operation on the 'credit_cards' table. The status bar at the bottom indicates 'Query Completed'.

I mirem que estan bé els resultats

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

Administration Schemas Sprint 4 SQL File 48* SQL File 49* SQL File 50* SQL File 51* Sprint4-2* SQL File 53* SQL File 54*

SCHEMAS

modelat_sql_rosser

Tables

Views

Stored Procedures

Functions

modelat_sql_rosser2

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

User: root

SSL cipher: TLS_AES_128_GCM_SHA256

Server

Product: Homebrew

Version: 9.0.1

Connector

Version: C++ 9.0.0

Administration Schemas Sprint 4 SQL File 48* SQL File 49* SQL File 50* SQL File 51* Sprint4-2* SQL File 53* SQL File 54*

Don't Limit

1 • SELECT *

2 FROM credit_cards;

Result Grid Filter Rows: Search Edit Export/Import:

| id | user_id | iban | pan | pin | cvv | track1 | track2 | expiring_date |
|----------------|-----------------------------|-------------------------------|---------------------|-------------------------|-----|--|-------------------------------------|---------------|
| Ccl-2952 | 273 | BG451QL521052608285 | 4559 453 55 5287 | 4598 | 438 | %B2183281034307501%CddygtJwefr\$9079... | %B677880257827162+800865074007... | 06/29/2021 |
| Ccl-2959 | 272 | CR7244772443564153 | 372461773439075 | 667 | 111 | %B21111956290XccedjjBkccedj091612... | %B24615448291853+808523291678... | 02/24/23 |
| Ccl-2966 | 271 | BG72LKT15027833771363 | 488566 886747 7265 | 4900 | 180 | %B4728932276522317hlgswfFmrmwgj... | %B2318571115599883+8082157849... | 10/29/24 |
| Ccl-2973 | 270 | PT8780228135902420456346 | 544 58545 54343 384 | 8760 | 887 | %B47614052832736734hmpioBlje710851... | %B7816169831446746+310277229... | 01/30/25 |
| Ccl-2980 | 269 | DE392418818086277138 | 40240 7145845969 | 5075 | 596 | %B73204833870549+0kzqrpjHpadl90117... | %B2474313982214151+01221913175... | 07/24/22 |
| Ccl-2987 | 268 | GE896614384377781813 | 3763 747687 76666 | 2298 | 797 | %B4750646345146674+PjmlyrgGwfrt83051... | %B5441935173418615+1037045367... | 10/31/23 |
| Ccl-2984 | 267 | BH627142386906765292 | 34428327325258 | 7545 | 595 | %B1535797574015674+GmnpqyUtopQn20578... | %B414467473924349+650680959574... | 02/28/22 |
| Ccl-3001 | 266 | CY49087422654774581268832110 | 51172294833 2244 | 9582 | 867 | %B6227288756728648+AuxifLfcngdy28080... | %B342935575093453+30526830573... | 09/16/22 |
| Ccl-3008 | 265 | LU507162693616119230 | 448574464433884 | 1856 | 740 | %B7182288756729226+MkouhyTfvoVp017081... | %B6235123731781366+40563816678... | 04/05/25 |
| Ccl-3015 | 264 | PS119398216295715968324456821 | 3784 662233 17389 | 3246 | 822 | %B5776250106724742/QvnzkhCwrov'm5030... | %B3561372148267521+09547316677... | 01/31/22 |
| Ccl-3022 | 263 | G7196516280556977423121857 | 5164 1379 4842 3951 | 5610 | 342 | %B48562211432875/XmrwkhNwxoobt/0592... | %B7761154174374063+23042342974... | 04/25/25 |
| Ccl-3029 | 262 | AZ62371479382441418213739746 | 3429 279566 77631 | 9708 | 505 | %B9882354238385028+HrmqhsnRprjpm'1902... | %B4377026751781886+80245381976... | 09/02/23 |
| Ccl-3036 | 261 | AZ339300292584265854391994 | 3768 451556 48766 | 2232 | 565 | %B481457454466431%lcszwEzqfrk920591... | %B7259434322726515+53046049573... | 10/27/25 |
| Ccl-3043 | 260 | TN64881431051485217953 | 455676 64374636363 | 5969 | 196 | %B652485361888394/VpxpyChopy440679... | %B5469323811685837+403868577... | 06/07/25 |
| Ccl-3050 | 259 | FRI1674436175836831854477 | 402400712283 | 4834 | 126 | %B778417223537930%Nhuvu7Exiwka'1057... | %B727867037351232+740369024475... | 10/09/23 |
| Ccl-3057 | 258 | LU931822574979574521 | 3484 621767 21237 | 6805 | 848 | %B4513246318178918+EbmpehlXrjoly1023... | %B1725272041172802+70267979872... | 09/14/25 |
| Ccl-3064 | 257 | PS164527832054952337762727313 | 3467 732741 26810 | 3865 | 498 | %B767554533775797/XkwvhWPweqd'5103... | %B253323414661722+80133922876... | 06/03/25 |
| Ccl-3071 | 256 | NO892381746783512 | 3464 789562 23352 | 6625 | 661 | %B891276224165875+EhdwdwMaqqpc'2806... | %B1508267956327177+1076185320671... | 12/20/23 |
| Ccl-3078 | 255 | IS02512714586283279548733 | 4539 322 74 2377 | 9405 | 720 | %B88053956276929+YnqrucwOohnn'6909... | %B7843783236970315+104548651871... | 03/08/23 |
| Ccl-3085 | 254 | BE6317392734972347 | 5266 3346 1135 1687 | 7241 | 413 | %B2842982826686377/VnqfMgfu'7089... | %B880523947854061+80896977... | 05/10/23 |
| Ccl-3092 | 253 | RO6LSLSD0116612212547487 | 578452265263 | 9417 | 594 | %B28044123689465426+DlmnrInlyf61072... | %B123757140621478427+00821384274... | 12/19/22 |
| Ccl-3099 | 252 | PT2810573556820750375211 | 448 5541886833 | 7893 | 202 | %B7841949147228357930%FghfwxhQekwa'0105... | %B72042480651978+6509746877... | 01/22/23 |
| Ccl-3106 | 251 | AT68245278320549523377513 | 3495471446395283 | 9733 | 209 | %B194194917223537930%FghfwxhQekwa'0105... | %B8921795244772+30370273027... | 01/27/24 |
| Ccl-3113 | 250 | TE26LCG1773217572752 | 34183482287471 | 9011 | 27 | %B9365731333539126/KvphyyApsdm'512... | %B3438596027194536+53065565327... | 06/12/21 |
| Ccl-3120 | 249 | R572656 53375666166237144 | 52664533755 6757 | 7658 | 265 | %B3818528173485249+IcpivwYhnn'700654... | %B498697340295952+500916537... | 01/16/21 |
| Ccl-3127 | 248 | PT8335346143864348216864 | 4716 44 43 4686 | 8038 | 924 | %B3061281355691188/BxoinvZppiw'25063... | %B325146558238891+210196537881... | 01/16/23 |
| Ccl-3134 | 247 | BG23M7VQJ52668951827479 | 5146 3433 9766 2168 | 7626 | 935 | %B313474228230561476921+Vdpph'Dvpyp'9010905... | %B763641779463735+602832347... | 08/24/25 |
| Ccl-3141 | 246 | H44377147938244186672438 | 3775 6626 45261 | 2923 | 300 | %B6113777176725740/Cpmmtf'7771... | %B503995628873030+581919876... | 05/11/24 |
| credit_cards 3 | | | | | | | | |
| 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... | | | | |

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 pane 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, the status bar shows '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-B99FA5A035A | 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 | 11, 29, 43, 79 | 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-D684-4B66-91EFD393EBFF | 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 executed is:

```

1 • Select *
2   FROM users;
  
```

The results grid displays 200 rows of user data from the 'users' table. The columns include: id, name, surname, phone, email, birth_date, country, city, and postal_code. The address column is truncated. A vertical scroll bar is visible on the right side of the grid.

| 175 | Brent | Bates | 0500 221383 | ipsum.primis.in@aol.ca | Apr 8, 1996 | United King... | Brodick | WJ10 2LP | P.O. Box 249, 1044 Erat Ave |
|-----|----------|------------|-----------------|-----------------------------------|--------------|----------------|--------------|----------|--------------------------------|
| 176 | Lucas | Stevenson | 0800 1111 | quis.pede.praesent@google.net | Sep 9, 1998 | United King... | Dover | VU8 7QH | 832-6324 Nunc Ave |
| 177 | Lisandra | Carpenter | 07624 223701 | nunc@google.net | Aug 20, 2000 | United King... | Keith | XAV5 0RZ | Ap #681-4983 Nec, Av. |
| 178 | Guine... | Kemp | 070 1590 7780 | suscipit@google.net | Jun 18, 1987 | United King... | Kingsusse | XX8 1SH | Ap #601-3785 Lacus, St. |
| 179 | Stuart | Small | (016977) 2504 | sodales.elit.erat@icloud.net | Apr 21, 1983 | United King... | Basingstoke | AG98 3SE | P.O. Box 484, 610 Et Ave |
| 180 | Amelia | Valenzuela | (016977) 9972 | ac.nulla@google.co.uk | Feb 27, 1986 | United King... | Stockport | BK0M 3FQ | 2729 Feugiat, Road |
| 181 | Kermit | O'Brien | 076 8212 1580 | cursus@google.com | Jan 15, 1995 | United King... | St. Andrews | D5 2TG | Ap #659-5780 Elit Rd. |
| 182 | Dane | Shepard | 0975 985 5842 | vehicula@hotmail.net | Oct 13, 1999 | United King... | Selkirk | T8Q 7XU | P.O. Box 148, 5146 Placerat... |
| 183 | Germ... | Whitehead | (016977) 7528 | malesuada.malesuada.integer@ao... | Oct 20, 1982 | United King... | Alvia | GC6Y 2EW | 895-5715 Ipsum, Road |
| 184 | Ulla | Ramirez | 055 1225 6227 | phasellus.elit@icloud.co.uk | Oct 30, 1998 | United King... | Stromness | ED0P 8YK | 9746 Aliquet St. |
| 185 | Molly | Gilliam | 0800 120 8023 | donec@outlook.co.uk | Dec 21, 1993 | United King... | Banbury | UBH 7PH | P.O. Box 202, 5638 Mi Rd. |
| 186 | Dawn | Gonzalez | 0500 251093 | vel@protonmail.org | Oct 25, 1994 | United King... | Douglas | A0D 7WV | 200-5000 Aliquam Ave |
| 187 | David | Veronica | 0500 351083 | vel@protonmail.org | Aug 5, 1996 | United King... | Region | T5B4 1YW | P.O. Box 61, 3511 Tempus,... |
| 188 | Keane | Mckinney | 0345 629 4218 | vel@protonmail.org | Jul 5, 1983 | United King... | Lochmaben | QJ73 6UB | 102-5374 Ac Rd |
| 189 | Walter | Lamb | (016977) 7335 | ut.est@hotmail.edu | Apr 23, 1998 | United King... | Biggleswade | OA9M 7PV | 592-7699 In Road |
| 190 | Shellei | Valenzuela | 0500 899670 | dicitur.phasellus.in@google.co.uk | Jun 27, 1998 | United King... | Fort William | K6G 6S1 | 2508 Natoque St. |
| 191 | Deirdre | Todd | 056 3122 8029 | purus.mauris.a@icloud.org | Dec 16, 1984 | United King... | Millport | PR67 4CE | 3423 A, Avenue |
| 192 | Phoebe | Roth | 076 5361 4786 | arcu.eu@google.org | Feb 2, 1981 | United King... | Buckie | RG6W 3JZ | 9001 Ai Ave |
| 193 | Minerva | Wilkins | 07581 368219 | aliquam.adipiscing@yahoo.edu | Aug 31, 2000 | United King... | Shutesbury | NDR 8TC | 437-5979 Et Ave |
| 194 | Porter | Francis | 0500 257479 | quis.acumsan@aol.co.uk | Jul 20, 1991 | United King... | Newtown A... | OH 2A1 | 132-7918 Elementum, Avenue |
| 195 | Roslyn | Blake | (01590) 28451 | integer@protonmail.net | Apr 25, 1984 | United King... | Swindon | P4 6UJ | Ap #694-5758 Viverra, Av. |
| 196 | Blaze | Duke | 0800 060 8337 | quis@hotmail.ca | Feb 12, 1992 | United King... | March | V5 2UL | 416-2357 Vel, Rd. |
| 197 | Carly | Mathews | (024) 5216 7655 | mauris@protonmail.edu | May 23, 1996 | United King... | Bathgate | KHOE 3HR | 8486 Nunc Ave |
| 198 | Keely | Fox | 0800 1111 | id.mollis@google.net | Jul 1, 1989 | United King... | Blairgowrie | N4 5WB | 8716 M St. |
| 199 | Lewis | Melendez | (016977) 5758 | non@yahoo.net | Jul 8, 1990 | United King... | March | JM6 4QS | Ap #615-7530 Nunc Av. |
| 200 | Nero | Mills | 056 4507 5712 | adipiscing@protonmail.org | Aug 8, 1984 | United King... | Newtown | KK80 6UC | Ap #809-8475 Donec Street |

Action Output: 200 row(s) returned

Duration / Fetch Time: 0.0011 sec / 0.00013...

Query Completed

Els de Canadà

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

```

1 • LOAD DATA INFILE 'users_ca.csv' INTO TABLE users
  
```

The results grid displays 200 rows of user data from the 'users' table. The columns include: id, name, surname, phone, email, birth_date, country, city, and postal_code. The address column is truncated. A vertical scroll bar is visible on the right side of the grid.

| 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 | | | | | | | | | |

Action Output: 75 Deleted: 0 Skipped: 0 Warnings: 0

Duration / Fetch Time: 0.0063 sec

Query Completed

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 | Levy | 052-289-6564 | rhealevy@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 | J4V 2G5 | P.O. Box 406, 1835 At Street |
| 251 | Dawn | Levy | 098-545-1455 | alinique.levy@icloud.com | Aug 25, 1989 | Canada | Bethelwood | H4Y 6Y2 | P.O. Box 309, 103 Neque Str.. |
| 252 | Zephia | Collins | 021-817-1549 | urna.vivamus@icloud.ca | Jun 29, 1994 | Canada | Aniavit | 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 | neconsectetur@aol.edu | 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 | 9R9 6S6 | Ap #123-4567 Ut, Street |
| 258 | Stacy | Robbins | 076-226-5788 | tempus.eu.ligula@google.edu | Jun 26, 1980 | Canada | Calgary | R4H 8Y3 | 416-2324 Quam Street |
| 259 | Slade | Downs | 034-228-4880 | nunc@protonmail.net | May 28, 1994 | Canada | Minotolas | 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 | Banff | 56V 7V5 | Ap #431-3047 Adipiscing Rd. |
| 263 | Ima | Hendrick | 044-254-6877 | neconsectetur@aol.edu | Nov 6, 1991 | Canada | Whitehorse | 78V 0B5 | Ap #750-483 Lacinia, Rd. |
| 264 | Keiko | Guerre | 034-254-6877 | plam@outlook.ca | Dec 12, 1995 | Canada | Bethune | T7C 9N8 | Ap #123-4567 Ut, Street |
| 265 | Elaine | Guerrero | 026-178-1548 | tempus.eu.ligula@protonmail.org | Jan 10, 1990 | Canada | Oshawa | 9L1 1P1 | 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... | 8SX 3P4 | 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.nec@outlook.google.net | Oct 20, 1990 | Canada | McMast... | 2B9 1C9 | 200-555-1234 |
| 271 | Leandra | Leigh | 098-265-7010 | morbi.sunt@icloud.ca | Sep 25, 1988 | Canada | Gatineau | H8S 6A9 | 854-8583 Belluludin Av. |
| 272 | Hedwig | Gilbert | 064-204-8788 | sem.eget@icloud.edu | Aug 18, 1991 | Canada | Tuktoyaktuk | C4C 3G7 | P.O. Box 696, 1145 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);

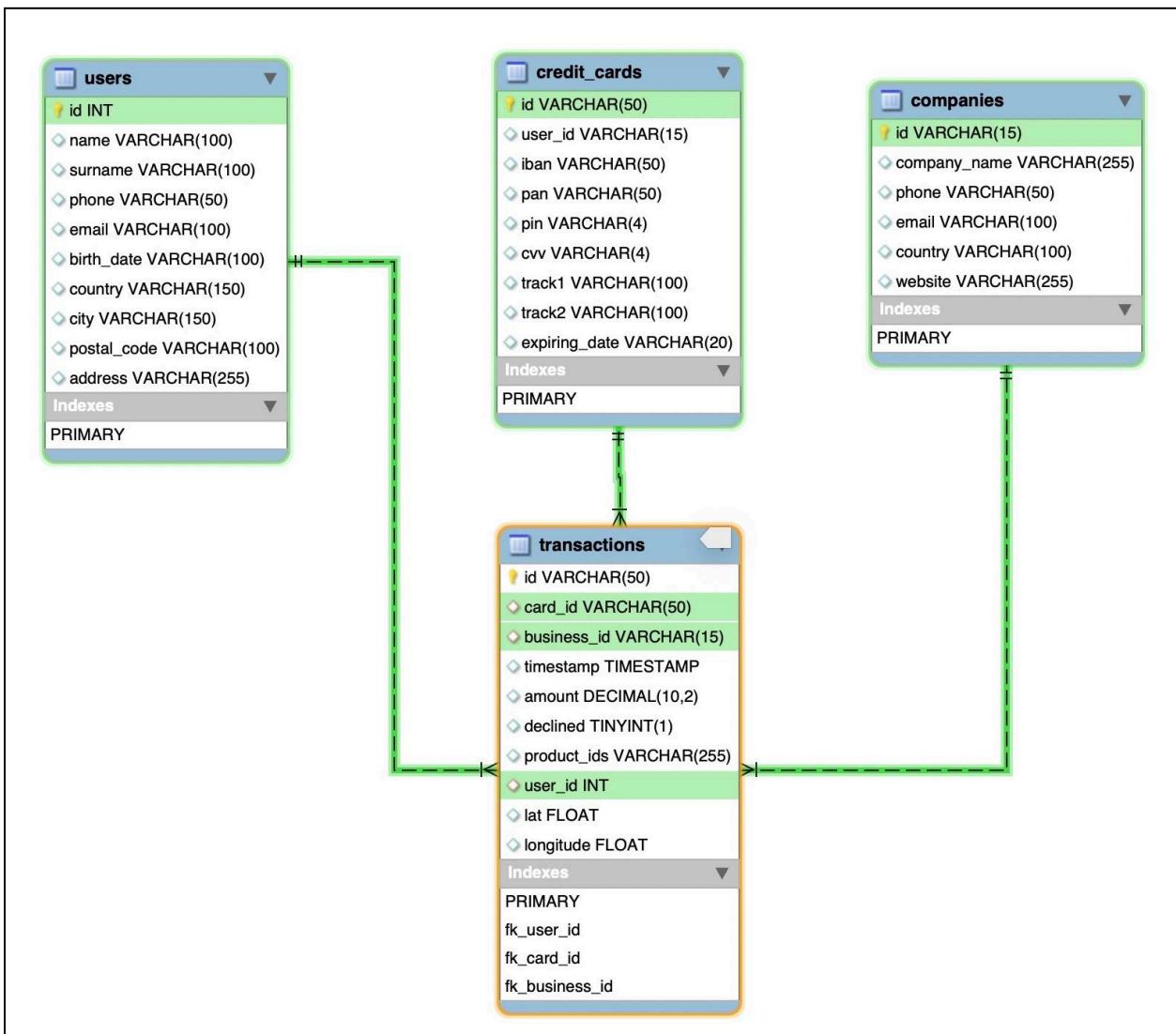
```

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.

```
1  -- Usuaris amb més de 30 transaccions
2 •  SELECT users.id, users.name AS nom, users.surname AS cognom, COUNT(transactions.id) as numero_transaccions
3   FROM users
4   JOIN transactions ON users.id = transactions.user_id
5   GROUP BY user_id
6   HAVING numero_transaccions > 30
7   ORDER BY numero_transaccions DESC;
```

Result Grid | Filter Rows: Q Search Export:

| id | nom | cognom | numero_transaccions |
|-----|--------|---------|---------------------|
| 272 | Hedwig | Gilbert | 76 |
| 287 | Ocean | Nelson | 52 |
| 275 | Kenyon | Hartman | 48 |
| 92 | Lynn | Riddle | 39 |

- 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.

Busquem el id de la companyia Donec, i és b-2242

Local instance 3306 - Warning - not supported

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

SCHEMAS Q Filter objects modelat_sql_roser Tables companies Columns id company_name phone email country website

Indexes Foreign Keys Triggers credit_cards transactions Columns

Object Info Session Table: companies

Columns:

| id | company_name | phone | email | country | website |
|--------|-------------------------------|----------------|--------------------------------------|----------------|--------------------------------|
| b-2242 | Donec Ltd | 01 25 00 37 37 | ut.aculus@hotmail.ca | Norway | https://rymnes.com/user/110 |
| b-2250 | Erat Etiam Associates | 04 67 00 07 04 | ut@aculus.com | Iceland | https://rymnes.com/user/110 |
| b-2578 | Dui Quis Institute | 06 95 20 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-2398 | Eget Ipsum Ltd | 03 67 44 56 72 | lacinia.at.aculus@hotmail.net | United States | https://whatsapp.com/settings |
| b-2458 | Eget Tincidunt Duis Institute | 05 35 93 32 44 | eget.laoreet@hotmail.org | Netherlands | https://wikipedia.org/user/110 |
| b-2298 | Elti Etiam Laoreet Associate | 07 69 74 17 45 | ultrices@google.co.uk | Canada | https://yahoo.com/fr |
| b-2326 | Enim Condimentum Ltd | 09 55 51 66 25 | imperdiet.non.vestibulum@yahoo.co.uk | United Kingdom | https://cmi.com/group |
| b-2594 | Et Magnis Ltd | 03 18 88 77 79 | non.vestibulum@protonmail.net | Netherlands | https://ebay.com/fr |
| 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 |

Action Output: Time Action Response Duration / Fetch Time

57 13:36:14 SELECT * FROM companies 100 row(s) returned 0.0026 sec / 0.00004...

Query Completed

I filtrarem els resultats

The screenshot shows the MySQL Workbench interface. On the left, the schema browser displays tables like 'credit_cards', 'transactions', and 'companies'. The central pane shows a query editor with the following SQL code:

```

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;
    
```

The results grid shows one row:

| card_id | Avg(amount) |
|----------|-------------|
| CcU-2973 | 203.715000 |

At the bottom, the action output shows the query was executed successfully in 0.0042 sec.

Ara reemplacem el ID per una subquery. M'ha agradat més fer-ho així que amb una join, em sembla que queda més clar.

The screenshot shows the MySQL Workbench interface. The schema browser and results grid are identical to the previous screenshot. The query editor now contains a subquery in the WHERE clause:

```

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 results grid shows the same single row as before.

At the bottom, the action output shows the query was executed successfully in 0.0036 sec.

Li afegim els ibans

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

Query Editor:

```
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 |

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)

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... |

Query Completed

I ho posem bonic

```
1 -- Mitjana d'amount per IBAN de targetes a Donec Ltd
2 SELECT credit_cards.iban, ROUND(AVG(amount)) AS mitjana_transaccio_donec
3 FROM transactions
4 JOIN credit_cards ON credit_cards.id = transactions.card_id
5 WHERE business_id = (SELECT id
6   FROM companies
7   WHERE company_name='Donec Ltd')
8 GROUP BY credit_cards.iban
9 ORDER BY mitjana_transaccio_donec DESC;
```

100% 40:9

Result Grid Filter Rows: Search Export:

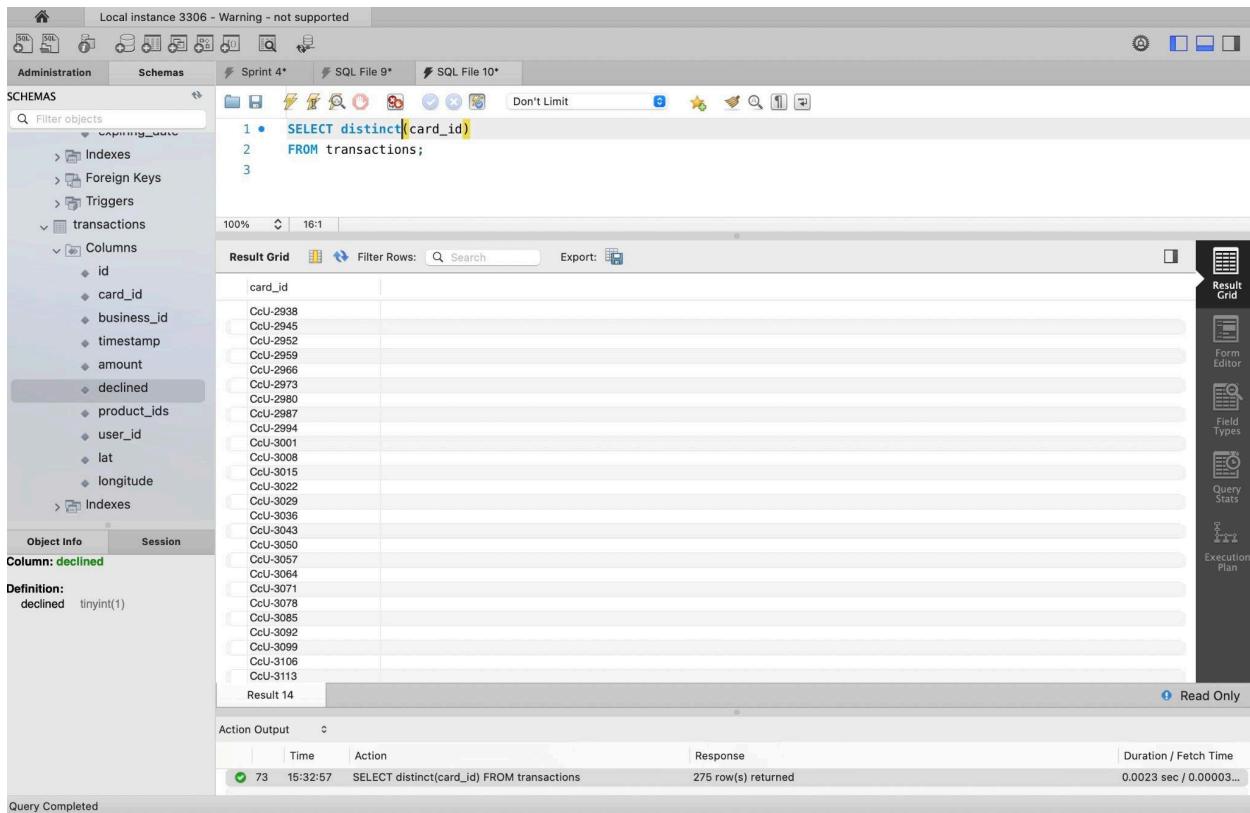
| iban | mitjana_transaccio_donec |
|---------------------------|--------------------------|
| PT87806228135092429456346 | 204 |
| | |
| | |
| | |

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. On the left, the 'Schemas' tree view is expanded to show the 'transactions' schema, with the 'card_id' column selected. The main pane displays the results of the query:

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

| 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

Action Output

| Time | Action | Response | Duration / Fetch Time |
|----------|--|---------------------|-------------------------|
| 15:32:57 | SELECT distinct(card_id) FROM transactions | 275 row(s) returned | 0.0023 sec / 0.00003... |

Query Completed

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

- > Indexes
- > Foreign Keys
- > Triggers
- transactions
 - 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)
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 | 43 | 108 | -47.8783 | 168.275 |
| 51A4866C-484C-5529-8419-B7BBADE4294D | CcU-3393 | b-2346 | 2021-03-27 10:25:42 | 447.06 | 0 | 5, 23, 37 | 104 | 74.8691 | -147.034 |
| 61EC87A4-CF88-B392-F93B-75EF2FC93537 | CcU-3393 | b-2326 | 2021-06-01 20:23:57 | 346.10 | 0 | 89, 53 | 110 | 88.4626 | 85.6351 |
| 71CB87BE-F93E-4877-D1F6D-1BD3B312ED29 | CcU-3393 | b-2326 | 2021-10-21 20:41:56 | 441.63 | 0 | 5, 59 | 110 | -27.1212 | -105.573 |
| 7D00B19EC-7363-6767-36C0-97CE77D5E65 | CcU-3393 | b-2326 | 2021-05-09 15:36:26 | 158.89 | 0 | 97, 79, 67 | 107 | -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 | -7.43343 | -77.4374 |
| 8C5C40B3-3988-EE44-128E-18147A9E62D2 | CcU-3393 | b-2346 | 2021-12-22 05:18:10 | 123.09 | 0 | 37, 11, 2, 3 | 106 | -32.7338 | -136.163 |
| 925CA912-BC56-8905-9279-FC88DE2185f6 | CcU-3393 | b-2326 | 2021-05-09 17:01:17 | 341.44 | 0 | 7, 19 | 112 | 49.4942 | -62.5086 |
| 9833DD1C-702C-A8A7-FB46-ABC4A70DF7B4 | CcU-3393 | b-2326 | 2022-01-06 22:25:58 | 472.18 | 0 | 79, 97, 17 | 111 | -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 | 66.7095 | -105.291 |
| 9EE639A3-2836-87C2-207F-AF3941834DB2 | CcU-3393 | b-2346 | 2021-08-09 08:17:46 | 368.83 | 0 | 19, 7 | 100 | -77.4477 | -1.16971 |
| A02DC5D8-FC79-EA3-0308-32488538f6BD | CcU-3393 | b-2482 | 2022-02-19 17:24:18 | 153.89 | 1 | 47, 61 | 272 | 9.96665 | -108.709 |
| A234A47C-7594-5485-E592-79D6671E1483 | CcU-3393 | b-2326 | 2021-12-13 12:20:16 | 109.78 | 0 | 7, 3, 2 | 113 | 22.2165 | 33.827 |
| A4534186-6CA4-E910-26E1-8986861688E9D | CcU-3393 | b-2326 | 2021-06-06 11:57:32 | 58.14 | 0 | 37, 29 | 114 | -13.0857 | -151.407 |
| B1ED4136-D41A-6BF3-4C61-7A575f624670 | CcU-3393 | b-2482 | 2021-06-09 16:23:11 | 22.19 | 0 | 23, 71, 29, 5 | 272 | -71.5791 | -40.9087 |
| B220187A-2A9C-0384-EEA1-DD917F11C94F | CcU-3393 | b-2326 | 2021-09-07 04:13:28 | 466.48 | 0 | 53 | 115 | 0.920227 | 25.7309 |
| BAA38D001-C4D1-6F43-DOF8-5EC8C8B8384B | CcU-3393 | b-2326 | 2022-02-05 15:36:28 | 167.19 | 0 | 53, 97, 73, 2 | 109 | -34.5539 | -89.1261 |
| CEED5D49-B28F-49A6-E567-9E7F74864190 | CcU-3393 | b-2346 | 2021-09-09 02:41:00 | 107.30 | 0 | 19, 71, 41 | 103 | -75.2029 | 73.2142 |
| D95F1C84-2844-6BD2-3958-E4EBEFc36A75 | CcU-3393 | b-2326 | 2021-08-14 17:42:42 | 266.37 | 0 | 47, 89 | 110 | -86.2736 | -118.737 |
| DD9860B0-D1BC-F993-4DE8-Sa247ACD73 | CcU-3393 | b-2326 | 2021-09-24 14:08:59 | 176.20 | 0 | 2, 23 | 110 | 65.0364 | -26.2682 |
| F843DC08-CCB5-2444-1B4E-5966289fBA8B | CcU-3393 | b-2346 | 2021-04-27 08:12:28 | 18.08 | 0 | 7, 53, 37 | 102 | 17.9004 | 65.5477 |
| 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 | 88.2782 |
| 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 |
| D5C5ABC8-1-D3-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 |
| 6ADF86D5-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-BE39-36f447868EF | CcU-3463 | b-2522 | 2022-03-09 04:15:58 | 470.03 | 1 | 17, 7 | 267 | -34.5017 | -6.4337 |
| 158A3ACB-541C-DBCC-65BD-6373C6C67BF1C | 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 |
| 95E9F678-3731-2845-EB21-1ABD2D016BCB | CcU-2959 | b-2346 | 2022-03-04 02:48:32 | 192.13 | 0 | 31 | 92 | 16.5773 | -123.777 |
| 3E495E51-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 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, 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
- 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;
  
```

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
- 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 left sidebar displays the schema tree for 'modelat_sql_roser' with nodes for Tables, Columns, Indexes, and Foreign Keys. The main area shows a query editor with the following SQL code:

```
1
2
3 -- details transaccions de tgts que tenen més de 2 transaccions
4 • SELECT *
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;
```

The results grid shows the following data:

| 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 | 2022-03-14 23:21:10 | 20.33 | 0 | 1 | 190 | 26.4978 | -54.1349 |
| A0D5A78A-8929-087A-97A7928ECB18 | 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-8661-004C-9340-877A966C39 | CcU-2938 | b-2336 | 2022-03-09 20:53:59 | 229.65 | 0 | 79,73 | 84 | -65.124 | 31.0337 |
| 16B8A88A-9000-0000-0000-6373CC0091C | CcU-4849 | b-2302 | 2022-03-09 05:02:19 | 240.29 | 0 | 13,41,89,71 | 183 | 42.5424 | -170.347 |
| 58897F59-9391-004C-9340-877A966C39 | CcU-2938 | b-2326 | 2022-03-09 20:53:59 | 229.65 | 0 | 31,37 | 95 | 16.5773 | -5.00131 |
| D3D8215B-4616-004C-9340-877A966C39 | CcU-2994 | b-2354 | 2022-03-12 19:28:50 | 20.33 | 0 | 17,13,73 | 92 | 5.57705 | -10.99084 |
| 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 |
| 382379E9-1402-4361-238A-3C5A49989F7 | CcU-4849 | b-2278 | 2022-03-02 02:21:42 | 154.94 | 0 | 37 | 191 | 7.17413 | -0.098084 |
| 8D2CA58B-CNET-3238-CA4D-360323286748 | CcU-2994 | 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 19:57:53 | 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 |

The bottom section shows the transaction log and execution statistics.

Object Info Session
No object selected

Result Grid Filter Rows: Search Edit: Export/Import: Form Editor Field Types Query Stats

transactions 6

| Action Output | Time | Action | Response | Duration / Fetch Time |
|---------------|----------|---|---------------------|-------------------------|
| 25 | 12:21:00 | SELECT * FROM transactions WHERE card_id in (Select card_id FROM transactions GR... | 238 row(s) returned | 0.0051 sec / 0.00027... |

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, there are sections for Indexes and Foreign Keys.

The central area displays a query editor with the following SQL code:

```
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 ;
```

The result grid shows the output of the query, listing rows with card_id, timestamp, and the calculated row number. The results are as follows:

| 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 | 2021-10-01 08:33:44 | 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 23:05:47 | 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 |

The bottom status bar shows the query completed with a duration of 0.0051 sec / 0.00000...

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

```

Result Grid:

| 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 00:00:01 | 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 |

Action Output:

| Action | Time | Response | Duration / Fetch Time |
|-------------|--|---------------------|-------------------------|
| 55 12:43:41 | SELECT * FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition... | 376 row(s) returned | 0.0052 sec / 0.00005... |

Query Completed

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) |

```

1 • CREATE VIEW estat_targetes AS
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
14 ;
15

```

Action Output

| Time | Action | Response | Duration / Fetch Time |
|-------------|---|-------------------|-----------------------|
| 93 17:56:33 | CREATE VIEW estat_targetes AS SELECT card_id, CASE When estat_en_num... | 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

Servers

- Product: Homebrew
- Version: 9.0.1

Connectors

- Version: C++ 9.0.0

Result Grid

| 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 |

Form Editor

Field Types

Query Stats

Execution Plan

Action Output

| Time | Action | 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?

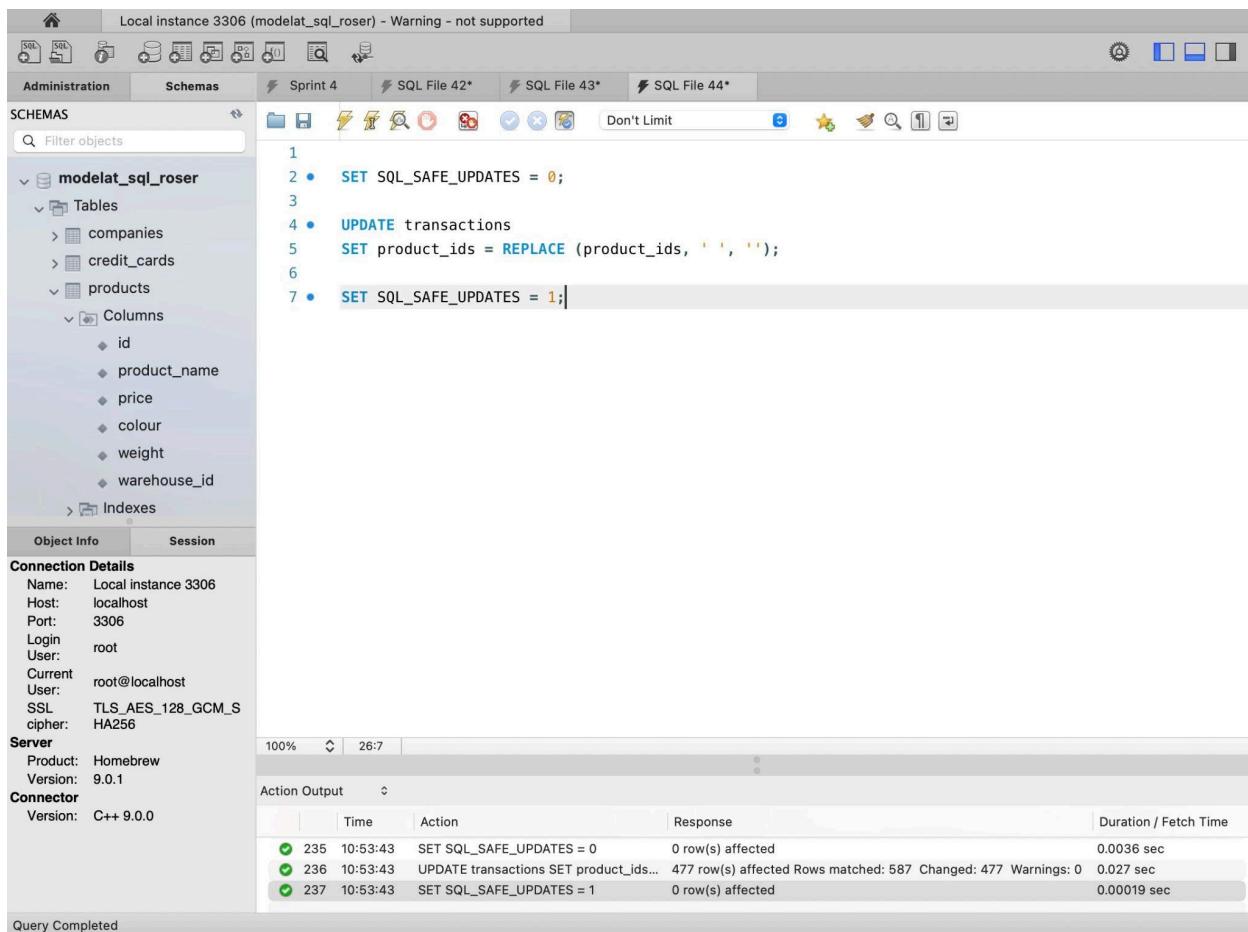
Totes les targetes estan actives 275

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 products

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 | direwolf | \$167.53 | #4c4c4c | 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, the connection is set to "Local Instance 3306 (modelat_sql_rose)" with a warning message: "Warning - not supported". Below the navigation bar, there are tabs for "Administration" and "Schemas". The "Schemas" tab is active, showing the "products" schema with its tables and columns. A search bar at the top right contains the text "Filter objects". The main area displays a SQL editor with the following query:

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

Below the SQL editor is a "Result Grid" pane showing the results of the query. The results are as follows:

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

On the right side of the interface, there is a vertical toolbar with icons for "Result Grid", "Form Editor", "Field Types", and "Query Stats". At the bottom of the interface, there is a "Query Completed" message.

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

SCHEMAS

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

Indexes

Foreign Keys

Triggers

users

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_S
- cipher: HA256

Server

- Product: Homebrew
- Version: 9.0.1

Connector

- Version: C++ 9.0.0

```

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-B0C7E71914B5 | 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 Action Response Duration / Fetch Time

242 12:21:08 SELECT transactions.id, products.id FROM products JOIN transactions ON FIND_IN... 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 it, the 'Tables' node is expanded, showing 'pont_trans_prod'. Below the table structure, the 'Object Info' tab is active, displaying connection details, server information, and connector version. The main pane shows the SQL code for creating the table:

```
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 status bar at the bottom indicates the query completed successfully.

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

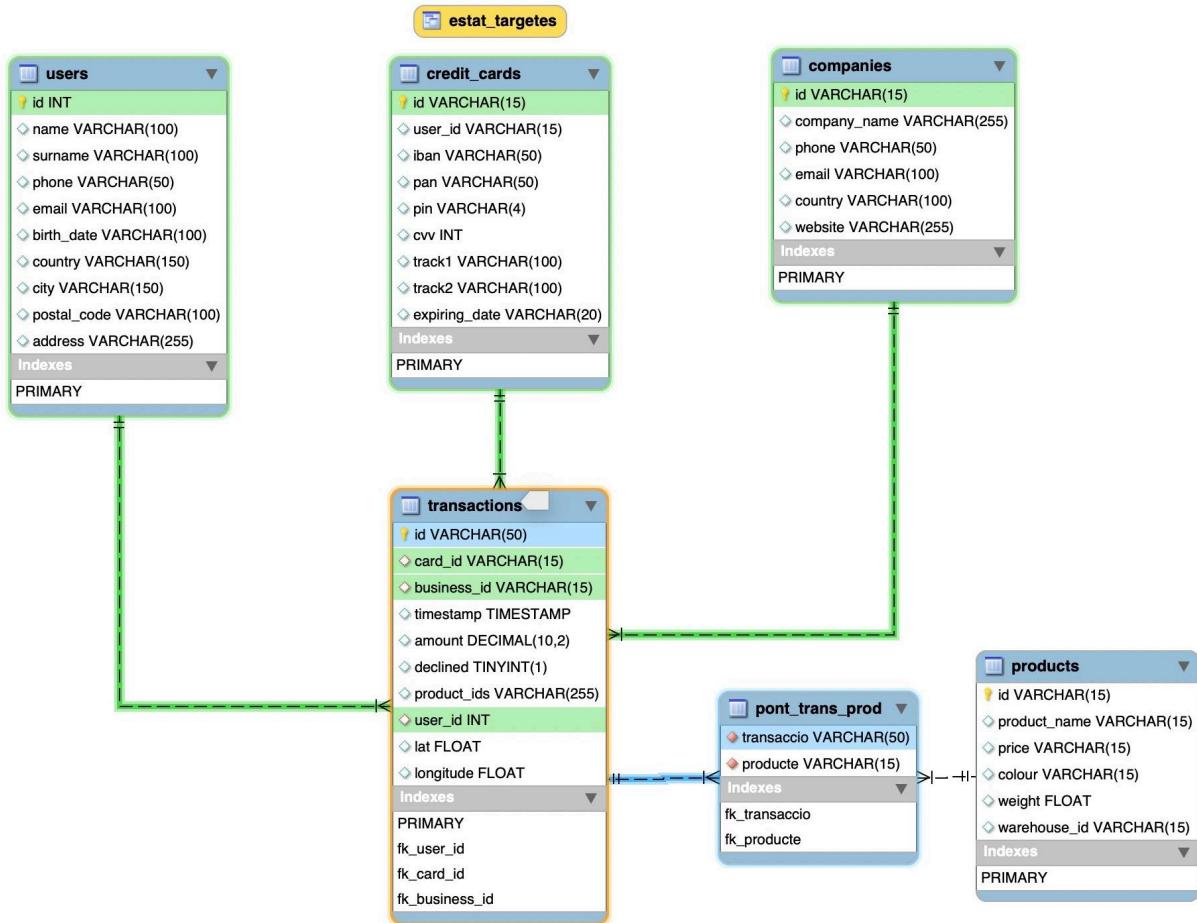
| Action | Time | Response | Duration / Fetch Time |
|---|--------------|--|-----------------------|
| ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_producte foreign key (producte) | 246 12:33:28 | 723 row(s) affected Records: 723 Duplicates: 0 Warnings: 0 | 0.044 sec |

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
- 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 | 61 |
| solo | 61 |
| jinn | 62 |
| Winterfell | 65 |
| Tully | 68 |
| duel | 100 |
| Lannister | 47 |
| skylar | 47 |
| walker | 47 |
| ewok | 65 |
| duel | 57 |
| tourney | 48 |
| Karstark | 48 |
| Dorne | 47 |
| bastard | 47 |
| Tarly | Stark |

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