

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.

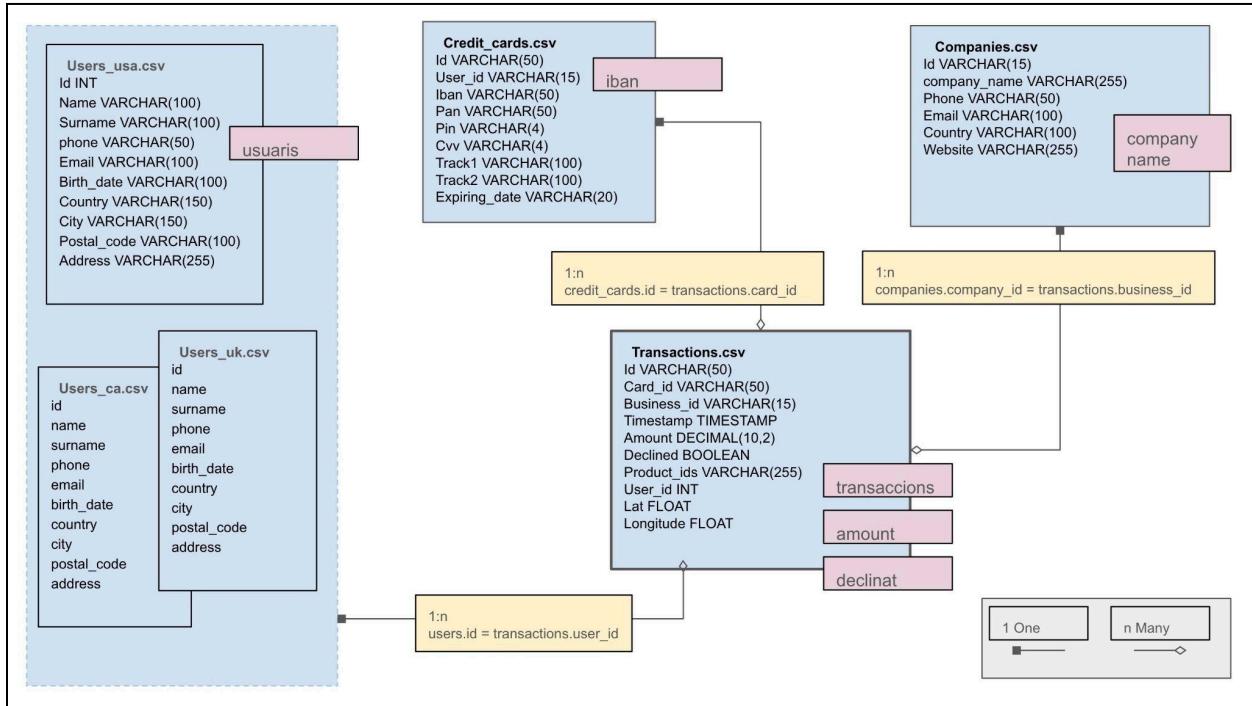
Nivell 1

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. The code includes creating the 'companies' table first, then the 'credit_cards' table with columns defined by their data types and constraints. The 'Action Output' panel shows the execution of the 'CREATE TABLE IF NOT EXISTS credit_cards' command at 15:32:04, which affected 0 rows in 0.013 seconds.

```

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 );

```

| Action | Time | 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 |

La taula users

The screenshot shows the MySQL Workbench interface with the 'Schemas' tab selected. Under the 'modelat_sql_roser2' schema, the 'Tables' section contains 'companies' and 'credit_cards'. The 'users' table is currently selected, 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. The code includes creating the 'credit_cards' table first, then the 'users' table with columns defined by their data types and constraints. The 'Action Output' panel shows the execution of the 'CREATE TABLE IF NOT EXISTS users' command at 15:35:02, which affected 0 rows in 0.016 seconds.

```

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 );

```

| Action | Time | 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 |

La taula transactions

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

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

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

Afegim les dades a la taula companies

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

Administration Schemas

SCHEMAS

Filter objects

modelat_sql_oser

- Tables
- Views
- Stored Procedures
- Functions

modelat_sql_oser2

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

Object Info Session

Connection Details

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

Server

Product: Homebrew
Version: 9.0.1

Connector

Version: C++ 9.0.0

```

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

```

Action Output

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

Query Completed

I mirem que estigu bé

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

Administration Schemas

SCHEMAS

Filter objects

modelat_sql_oser

- Tables
- Views
- Stored Procedures
- Functions

modelat_sql_oser2

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

Object Info Session

Connection Details

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

Server

Product: Homebrew
Version: 9.0.1

Connector

Version: C++ 9.0.0

```

1 • SELECT *
2 FROM companies;

```

Result Grid

| id | company_name | phone | email | country | website |
|--------|------------------------------|----------------|-----------------------------------|----------------|--------------------------------|
| b-2222 | Ac Fermentum Incorporated | 06 85 56 52 33 | donec.portitor.tellus@yahoo.net | Germany | https://instagram.com/site |
| b-2226 | Magna A Neque Industries | 04 14 44 64 62 | rius.donec.nibh@icloud.org | Australia | https://whatsapp.com/group/9 |
| b-2230 | Fusce Corp. | 08 14 97 58 85 | rius@protonmail.edu | United States | https://pinterest.com/sub/cars |
| b-2234 | Convallis In Incorporated | 06 66 57 29 50 | mauris.ut@aol.co.uk | Germany | https://cnm.com/user/110 |
| b-2238 | Ante laculis Nec Foundation | 08 23 04 99 53 | sed.dictum.proin@outlook.ca | New Zealand | https://netflix.com/settings |
| b-2242 | Donec Ltd | 01 25 51 37 37 | at.aculus@hotmail.co.uk | Norway | https://nytimes.com/user/110 |
| b-2246 | Sed Nunc Ltd | 02 62 64 73 48 | nibh@yahoo.org | United Kingdom | https://cnm.com/one |
| b-2250 | Amet Nulla Donec Corporation | 07 15 25 14 74 | mattis.integer.eu@protonmail.net | Italy | https://netflix.com/sub/cars |
| b-2254 | Nascetur Ridiculus Mus Inc. | 06 26 87 61 84 | suspendisse.dui@cloud.net | United States | https://ebay.com/sub |
| b-2258 | Vestibulum Lorem PC | 02 02 87 33 40 | aenean.massa.integer@aol.net | Belgium | https://pinterest.com/sub/cars |
| b-2262 | Gravida Sagittis LLP | 03 81 28 33 97 | turpis.vita@google.ca | Sweden | https://naver.com/site |
| b-2266 | Mus Aenean Eget Foundation | 06 25 15 52 43 | mi.duis@hotmail.net | Sweden | https://instagram.com/group/9 |
| b-2270 | Diu Parturient Institute | 05 36 29 78 74 | pros@protonmail.org | Ireland | https://google.com/one |
| b-2274 | Sed LLC | 01 63 16 26 52 | at@outlook.com | Belgium | https://reddit.com/fr |
| b-2278 | Arcu LLP | 06 46 04 41 45 | dui@aol.ca | Norway | https://yahoo.com/sub |
| b-2282 | Pretium Neque Corp. | 07 77 48 55 28 | eleifend.nec.malesuada@proto... | Australia | https://netflix.com/sub |
| b-2286 | Fringilla LLC | 08 29 15 93 57 | gravida@protonmail.co.uk | New Zealand | https://reddit.com/user/110 |
| b-2290 | Quisque Libero LLC | 01 45 48 71 11 | sapien.molestie.orci@hotmail.c... | China | https://baidu.com/group/9 |
| b-2294 | Auctor Mauris Vel LLP | 08 09 28 74 14 | nec.tempus@icloud.co.uk | United States | https://instagram.com/fr |
| b-2298 | Eti Etiam Laoreet Associates | 07 69 74 17 45 | ultrices@google.co.uk | Canada | https://yahoo.com/fr |
| b-2302 | Nunc Intendum Incorporated | 05 18 15 48 13 | non@outlook.com | Germany | https://wikipedia.org/en-us |
| b-2306 | Augue Foundation | 06 88 43 15 63 | mauris@yahoo.com | Germany | https://baidu.com/sub/cars |
| b-2310 | Non Magna LLC | 06 71 73 13 17 | nisl.quisque.fringilla@hotmail.ca | United Kingdom | https://whatsapp.com/sites |
| b-2314 | A Institute | 03 34 91 68 65 | metus.aliquam@google.edu | Belgium | https://reddit.com/fr |
| b-2318 | Quam A Felis Industries | 04 08 10 27 16 | proin.velit@icloud.edu | Italy | https://ebay.com/settings |
| b-2322 | Integer Mellis Corp. | 03 12 20 45 24 | eu.eros@protonmail.ca | Italy | https://netflix.com/group/9 |
| b-2326 | Enim Condimentum Ltd | 09 05 51 66 25 | imperdiet.non.vestibulum@yah... | United Kingdom | https://cnm.com/group/9 |
| b-2330 | Donec Fringilla PC | 01 51 58 14 44 | ut.lincident@hotmail.ca | France | https://google.com/fr |

Action Output

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

Query Completed

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

The screenshot shows the MySQL Workbench interface. The left sidebar displays the database schema with two databases: 'modelat_sql_rosier' and 'modelat_sql_rosser2'. The 'Tables' section under 'modelat_sql_rosser2' lists 'companies', 'credit_cards', and 'transactions'. The 'Columns' section for 'transactions' lists 'id', 'card_id', and 'business_id'. The main pane shows a SQL editor with the following query:

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

The status bar at the bottom indicates the query was completed successfully with 275 row(s) affected, 0 deleted, 0 skipped, and 0 warnings, in 0.011 seconds.

I mirem que estan bé els resultats

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-B99FA5A8035A | CcU-2959 | b-2234 | 2021-04-17 05:17:17 | 282.47 | 1 | 7, 47, 17 | 275 | 9.66811 | 130.282 |
| 1029A4A4-8929-31F1-140C-07BA95013D2 | CcU-3701 | b-2414 | 2021-05-02 02:00:28 | 460.0 | 0 | 37, 13 | 267 | -4.2204 | -101.154 |
| 1029A4A4-8929-31F1-140C-07BA95013D2 | 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-6450A2B3E054 | CcU-4520 | b-2302 | 2021-12-29 20:38:23 | 17.97 | 0 | 11, 71 | 210 | 20.6724 | 14.9732 |
| 13DC69F-FA07-E32B-8309-D474C6281E0 | CcU-3197 | b-2370 | 2021-06-02 04:10:57 | 50.09 | 1 | 97, 29, 23 | 272 | 32.3746 | 165.016 |
| 13FB3B312-B283-7976-DA47-14DE5986218A | CcU-3365 | b-2466 | 2021-10-30 13:42:44 | 80.58 | 1 | 11, 29, 43, 79 | 272 | 20.2369 | -117.885 |
| 147983D2-B7BA-C7B8-4CE3-8D7C2DE65AB | CcU-2994 | b-2326 | 2021-08-09 00:58:07 | 309.45 | 0 | 89, 41, 59 | 133 | 66.2672 | 172.399 |
| 14CAE5B5-8FB1-3E4A-4C85-0E4A167534F4 | CcU-4849 | b-2302 | 2021-12-31 00:29:42 | 388.04 | 0 | 2, 13, 53, 31 | 189 | -53.6202 | 93.0533 |
| 1517E8A8-8944-A7C9-6691-692C27D0DC2C | CcU-3501 | b-2546 | 2021-03-23 01:58:34 | 295.51 | 1 | 83, 43 | 267 | -70.0484 | -44.5029 |
| 152598C2-029D-D684-4B66-91EFD393EBFF | CcU-2994 | 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 derived from the postal_code. The results show various users from around the world, such as Brent Bates (id 175), Lucas Stevenson (id 176), and many others.

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
2   FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
3   LINES TERMINATED BY '\r\n'
4   IGNORE 1 LINES;
  
```

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 derived from the postal_code. The results show users from Canada, such as David Vangelis (id 187) and many others.

I mirem que està bé

Screenshot of MySQL Workbench showing the results of a query:

```

1
2 • Select *
3 FROM users;

```

Result Grid

| id | name | surname | phone | email | birth_date | country | city | postal_code | address |
|-----|---------|-------------|--------------|-----------------------------------|--------------|---------|---------------|-------------|--------------------------------|
| 249 | Rhea | Harvey | 052-289-6564 | rheaharvey@protonmail.org | Jul 2, 1991 | Canada | Weyburn | 7L 2S9 | 910-7903 Sabian Avenue |
| 250 | Hilda | Levy | 052-289-2367 | hilida.levy@yahoo.com | Dec 15, 1994 | Canada | Bethelwood | JH+ 2G5 | P.O. Box 496, 1835 At Street |
| 251 | Dore | Miller | 098-545-1455 | ldique.laboris@icloud.com | Aug 25, 1989 | Canada | Bentwistle | H4Y 6V2 | P.O. Box 309, 103 Neque Str.. |
| 252 | Zephia | Collins | 021-817-1549 | urna.vivamus@icloud.ca | Jun 29, 1994 | Canada | Anviat | YX8 0E8 | 237-5522 Donec St. |
| 253 | Keara | Parks | 048-303-4775 | consectetur.adipiscing@google.edu | Oct 2, 1986 | Canada | Town of Y... | T2R 4Z7 | 793-2778 Ornare St. |
| 254 | John | Cottos | 085-253-4901 | diam@yahoo.org | Sep 26, 1983 | Canada | Colwood | 53K 8S9 | Ap #234-6329 Ipsum Road |
| 255 | Blaze | Daniel | 087-870-8309 | fells@protonmail.org | Oct 11, 1998 | Canada | Swan Hills | Y1N 5X1 | 811-6644 Id, Road |
| 256 | Lane | Paul | 044-254-6877 | neoclassism@aoi.edu | Aug 10, 1983 | Canada | Saskatoon | TJ3 3X3 | P.O. Box 850, 1002 Purus, Av. |
| 257 | Heather | Paul | 044-254-6877 | prentiss.sagittis@protonmail.com | Oct 1, 1991 | Canada | Dundas | 9P9 2G5 | Ap #141-5522 Etiam Street |
| 258 | Stacy | Robbins | 076-226-5788 | tempus.eu.ligula@google.edu | Jun 26, 1980 | Canada | Calderon | R4H 6Y3 | 416-2524 Quam Street |
| 259 | Slade | Downs | 034-228-4880 | nunc@protonmail.net | May 28, 1994 | Canada | Miniflora | T2Y 5Z1 | Ap #213-2963 Tristique Road |
| 260 | Grace | Rowe | 071-756-4297 | convallis.convallis@hotmail.edu | Mar 25, 1987 | Canada | Abbotsford | Y7S 3W8 | Ap #417-5793 Triculum Rd. |
| 261 | Violet | Weber | 019-661-3744 | aliquet.metus@hotmail.co.uk | Sep 23, 1984 | Canada | Ucluelet | W4C 3H8 | 102-5355 Aliquet Av. |
| 262 | Brett | Kirby | 076-166-2169 | auctor.nunc.nula@outlook.org | Dec 12, 1988 | Canada | Barf | 56V 7V5 | Ap #431-3047 Adipiscing Rd. |
| 263 | Ima | Hendrick | 044-254-6877 | neoclassism@aoi.edu | Nov 6, 1991 | Canada | Whitehorse | 7V9 0B5 | Ap #750-483 Lacinia, Rd. |
| 264 | Keiko | Guerre | 034-254-6877 | planum@outlook.ca | Dec 12, 1995 | Canada | Bethurst | T7C 9N8 | Ap #141-5522 Etiam Street |
| 265 | Elodie | Guerrero | 026-178-1548 | ante.ipsum.primes@protonmail.ca | Jan 16, 1990 | Canada | Oshawa | 5P7 1G5 | 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 | transfugatio@outlook.google.net | Oct 20, 1990 | Canada | McClure | 2P9 1G5 | 200-5355 Aliquet Av. |
| 271 | Leandra | Leigh | 026-265-7010 | morbi.sunt@icloud.ca | Sep 2, 1988 | Canada | Gardens | H8S 6A9 | 854-8583 Sallituludin Av. |
| 272 | Hedwig | Gilbert | 064-204-8788 | sem.eget@icloud.edu | Apr 18, 1991 | Canada | Tuktoyaktuk | C4C 3G7 | P.O. Box 696, 5145 Sapien R... |
| 273 | Hilary | Ferguson | 090-710-1604 | sapien.molestie.orci@google.edu | Jan 29, 1982 | Canada | Pangnirtung | 12T 5G4 | Ap #736-4628 Cras Sapien R... |
| 274 | Jame... | Hunt | 024-732-2321 | fringilla@protonmail.com | Aug 3, 1982 | Canada | Township... | B6V 6N4 | 224-4927 Praesent Ave |
| 275 | Kenyon | Hartman | 082-871-7248 | convallis.ante.lectus@yahoo.com | | | Richmond | RBH 2K2 | 8564 Facilisi, St. |

Action Output

| Time | Action | Response | Duration / Fetch Time |
|---------------------|--------|----------|-------------------------|
| 275 row(s) 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);

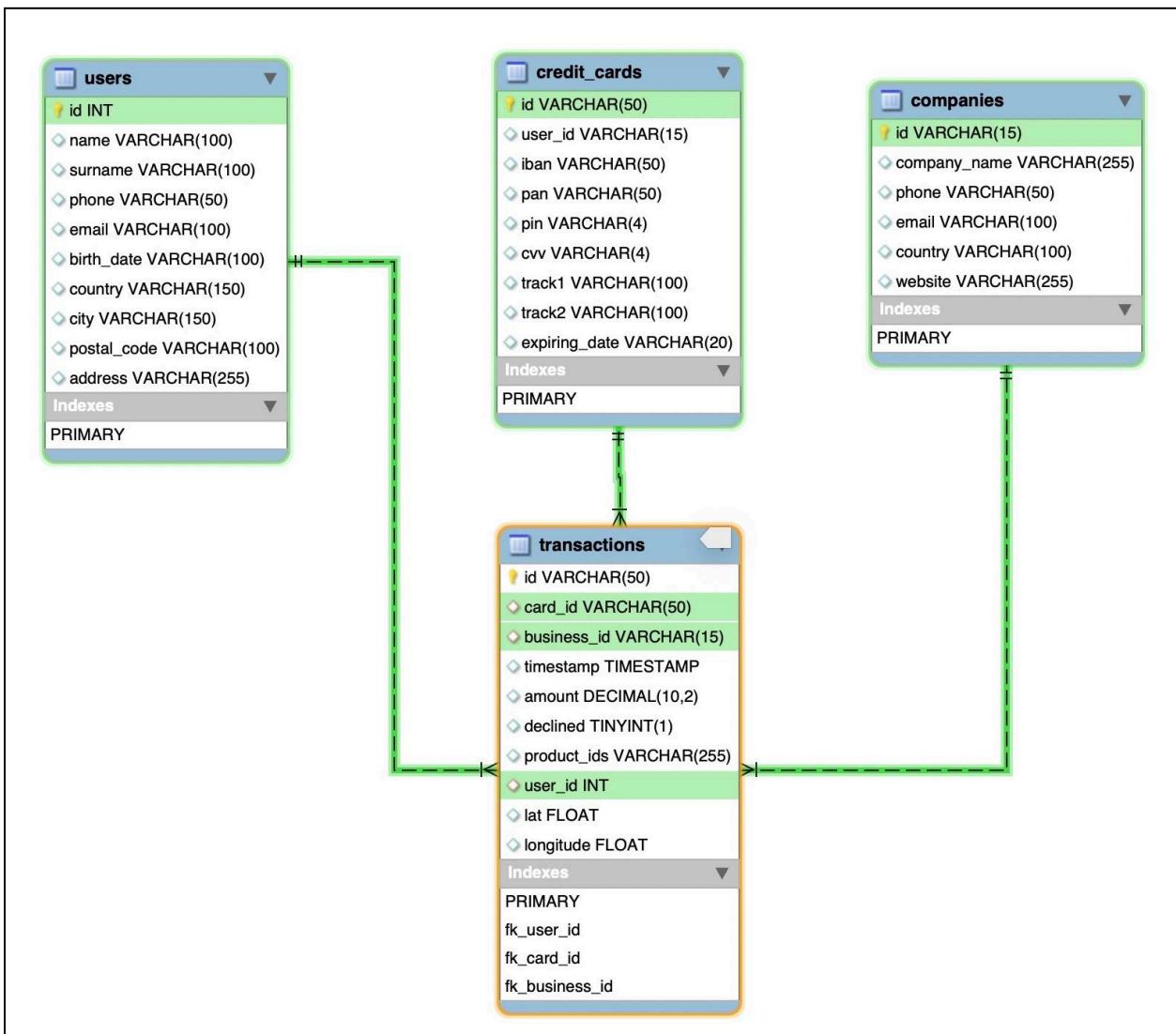
```

Action Output

| Time | Action | Response | Duration / Fetch Time |
|------|--------|--|-----------------------|
| | | 587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0 | 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 |
| 267 | 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 Filter objects modelat_sql_roser Tables companies Columns id company_name phone email country website

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-2254 | Cras Consulting | 07 50 10 85 63 | sed.consequat@google.ca | Belgium | https://baidu.com/en-us |
| b-2554 | Cras Vehicula Aliquet Industries | 03 37 86 87 75 | arci@hotmail.org | Netherlands | https://google.com/sub |
| b-2562 | Dictum Eu Corp. | 03 04 73 67 31 | donec.vitae@icloud.ca | Canada | https://netflix.com/en-ca |
| b-2270 | Dis Parturient Institute | 05 36 29 78 74 | purus@protonmail.org | Ireland | https://google.com/one |
| b-2502 | Dolor Vitae Limited | 06 53 60 43 60 | purus.maecenas@yahoo.edu | France | https://whatsapp.com/user/110 |
| b-2330 | Donec Fringilla PC | 01 51 50 00 04 | ut.incidunt@hotmail.ca | France | https://google.com/fr |
| b-2242 | Donec Ltd | 01 25 00 37 37 | ut.aculus@hotmail.ca | Norway | https://rymnes.com/user/110 |
| b-2254 | Cras Consulting | 04 67 70 87 84 | ut@aculus.com | Italy | https://yandex.com/it |
| b-2578 | Dui Quis Institute | 06 95 20 72 81 | luctus.sit.amet@yahoo.co.uk | New Zealand | https://yahoo.com/en-nz |
| 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 | egel.laoreet@hotmail.org | Netherlands | https://wikipedia.org/user/110 |
| b-2298 | Elit 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.com | 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

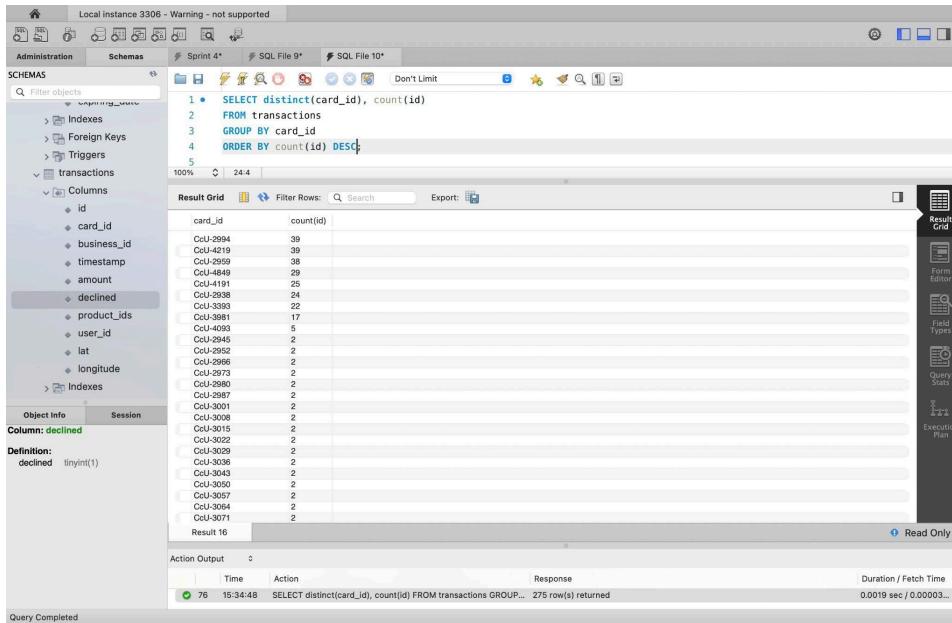
Result Grid Filter Rows: Search Export:

| 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 mirant quantes transaccions ha tingut cada targeta.



The screenshot shows the SQL Server Management Studio interface. The query window contains the following SQL code:

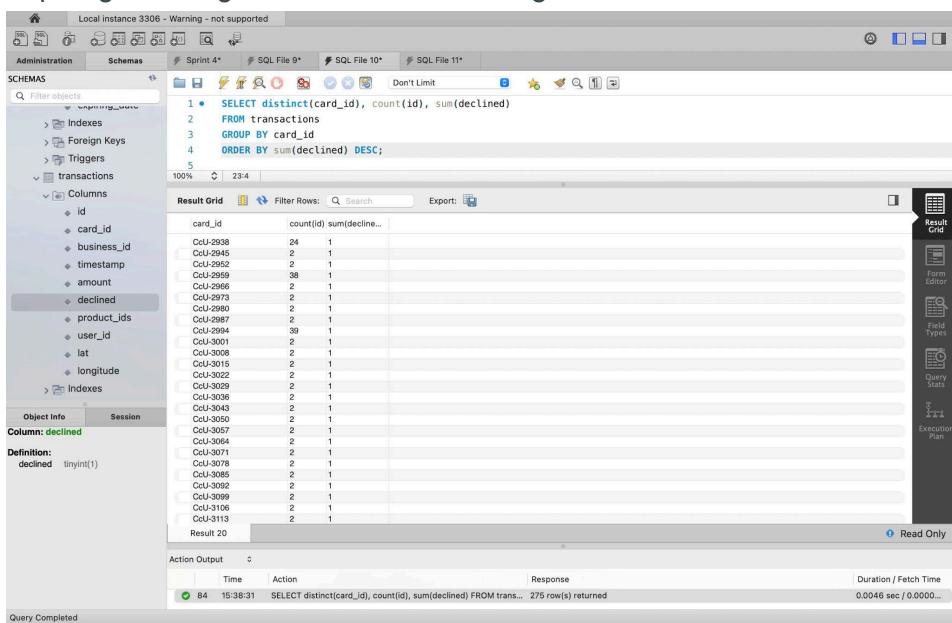
```
1 • SELECT distinct(card_id), count(id)
2   FROM transactions
3   GROUP BY card_id
4   ORDER BY count(id) DESC;
```

The result grid shows the following data:

| card_id | count(id) |
|----------|-----------|
| CcU-2994 | 39 |
| CcU-4219 | 39 |
| CcU-2959 | 38 |
| CcU-4249 | 29 |
| CcU-4191 | 25 |
| CcU-2938 | 24 |
| CcU-3393 | 22 |
| CcU-3881 | 17 |
| CcU-3035 | 5 |
| CcU-3445 | 2 |
| CcU-2952 | 2 |
| CcU-2966 | 2 |
| CcU-2973 | 2 |
| CcU-3030 | 2 |
| CcU-3987 | 2 |
| CcU-3001 | 2 |
| CcU-3008 | 2 |
| CcU-3015 | 2 |
| CcU-3022 | 2 |
| CcU-3028 | 2 |
| CcU-3036 | 2 |
| CcU-3043 | 2 |
| CcU-3050 | 2 |
| CcU-3057 | 2 |
| CcU-3064 | 2 |
| CcU-3071 | 2 |

The status bar at the bottom indicates "Query Completed".

I quantes vegades en total s'ha declinat cada targeta, que no semblen moltes. Cap targeta s'hagi declinat més d'una vegada.



The screenshot shows the SQL Server Management Studio interface. The query window contains the following SQL code:

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

The result grid shows the following data:

| card_id | count(id) | sum(declined) |
|----------|-----------|---------------|
| 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-3000 | 2 | 1 |
| CcU-3087 | 2 | 1 |
| CcU-3094 | 39 | 1 |
| CcU-3001 | 2 | 1 |
| CcU-3008 | 2 | 1 |
| CcU-3015 | 2 | 1 |
| CcU-3022 | 2 | 1 |
| CcU-3028 | 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 |

The status bar at the bottom indicates "Query Completed".

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

The screenshot shows the Oracle SQL Developer interface with the following details:

- Toolbar:** 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*.
- Object Navigator:** SCHEMAS, Filter objects, Indexes, Foreign Keys, Triggers, transactions (selected), Columns (id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, longitude).
- SQL Editor:**

```

1 •  SELECT *
2   FROM transactions
3   ORDER BY timestamp DESC;
    
```
- Result Grid:** Shows a table with columns: id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, longitude. The data consists of approximately 587 rows of transaction records.
- Bottom Status Bar:** Action Output, Time: 11:15:55, Action: SELECT * FROM transactions ORDER BY timestamp DESC, Response: 587 row(s) returned, Duration / Fetch Time: 0.0019 sec / 0.00054...
- Message Bar:** Query Completed.

Però ens cal partir açò per targeta.

Experimentem una mica amb ROW_NUMBER i amb el partition by.

The screenshot shows the Oracle SQL Developer interface with the following details:

- Toolbar:** Local instance 3306 - Warning - not supported, Administration, Schemas, SQL File 10*, SQL File 11*, SQL File 12*, SQL File 13*, SQL File 14*.
- Object Navigator:** SCHEMAS, Filter objects, Tables, modelat_sql_roser (selected), Transactions (selected), Columns (id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, longitude).
- SQL Editor:**

```

1
2 •  SELECT card_id, timestamp, ROW_NUMBER () over (partition by card_id order by timestamp)
3   FROM transactions;
    
```
- Result Grid:** Shows a table with columns: card_id, timestamp, ROW_NUMBER () over (partition by card_id order by timestamp). The data consists of approximately 587 rows of transaction records.
- Bottom Status Bar:** Read Only.
- Message Bar:** Query Completed.

De la llista anterior, només ens interessen les tres últimes transaccions. Això vols dir que tenen un ROW NUMBER 3 o menor.

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:

```

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

```

The results grid displays the following data:

| card_id | timestamp | declined ultimas_transacciones |
|----------|---------------------|--------------------------------|
| CcU-2938 | 2021-03-23 01:12:06 | 0 1 |
| CcU-2938 | 2021-03-28 05:01:44 | 0 2 |
| CcU-2938 | 2021-04-01 07:27:49 | 0 3 |
| CcU-2945 | 2021-06-15 00:26:29 | 1 1 |
| CcU-2945 | 2022-02-09 05:26:52 | 0 2 |
| CcU-2952 | 2021-05-09 05:38:39 | 1 1 |
| CcU-2952 | 2021-05-20 15:10:33 | 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 06:12:03 | 0 2 |
| CcU-2973 | 2021-07-31 23:03:21 | 1 1 |
| CcU-2973 | 2022-01-06 01:44:48 | 0 2 |
| CcU-2980 | 2021-08-10 08:14:49 | 0 1 |
| CcU-2980 | 2022-03-05 20:41:20 | 1 2 |
| CcU-2987 | 2021-05-18 12:34:25 | 1 1 |
| CcU-2987 | 2021-05-20 09:28:57 | 0 2 |
| CcU-2994 | 2021-04-09 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 |
| CcU-3008 | 2021-11-22 10:00:18 | 0 2 |

Result 11

Action Output

| Time | Action | Response | Duration / Fetch Time |
|-------------|---|---------------------|-------------------------|
| 55 12:43:41 | SELECT * 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; | 376 row(s) returned | 0.0052 sec / 0.00005... |

Query Completed

D'aquesta llista, sumarem total dels resultats de declined per a cada targeta. Les que tinguin un 3 estaran Inactives i les que tinguin un nombre menor (totes) estan Actives.

The screenshot shows the MySQL Workbench interface with a query editor and results grid. The query calculates the total declined value for the last three transactions for each card_id:

```

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

```

The results grid displays the following data:

| card_id | total_declined_3ultimas_trans |
|----------|-------------------------------|
| CcU-2938 | 0 |
| CcU-2945 | 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-3036 | 1 |
| CcU-3043 | 1 |
| CcU-3050 | 1 |
| CcU-3057 | 1 |
| CcU-3064 | 1 |
| CcU-3071 | 1 |
| CcU-3078 | 1 |
| CcU-3085 | 1 |

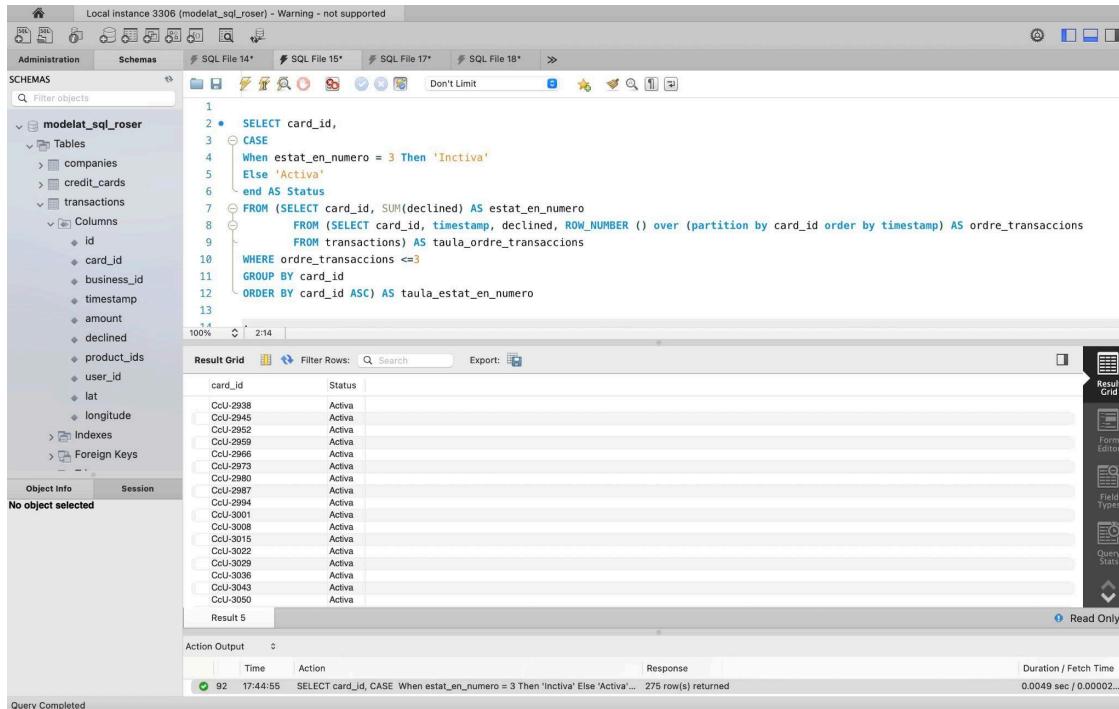
Result 22

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; | 275 row(s) returned | 0.0074 sec / 0.00004... |

Query Completed

Ara reemplacem la columna amb l'estat en número per una columna amb l'estat com a paraula, utilitzant el case.



```

1
2 •  SELECT card_id,
3   CASE
4     WHEN estat_en_numero = 3 THEN 'Inactiv'
5     ELSE 'Activa'
6   END AS Status
7
8   FROM (SELECT card_id, SUM(declined) AS estat_en_numero
9         FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions
10           FROM transactions) AS taula_ordre_transaccions
11         WHERE ordre_transaccions <=3
12       GROUP BY card_id
13     ORDER BY card_id ASC) AS taula_estat_en_numero
14
15

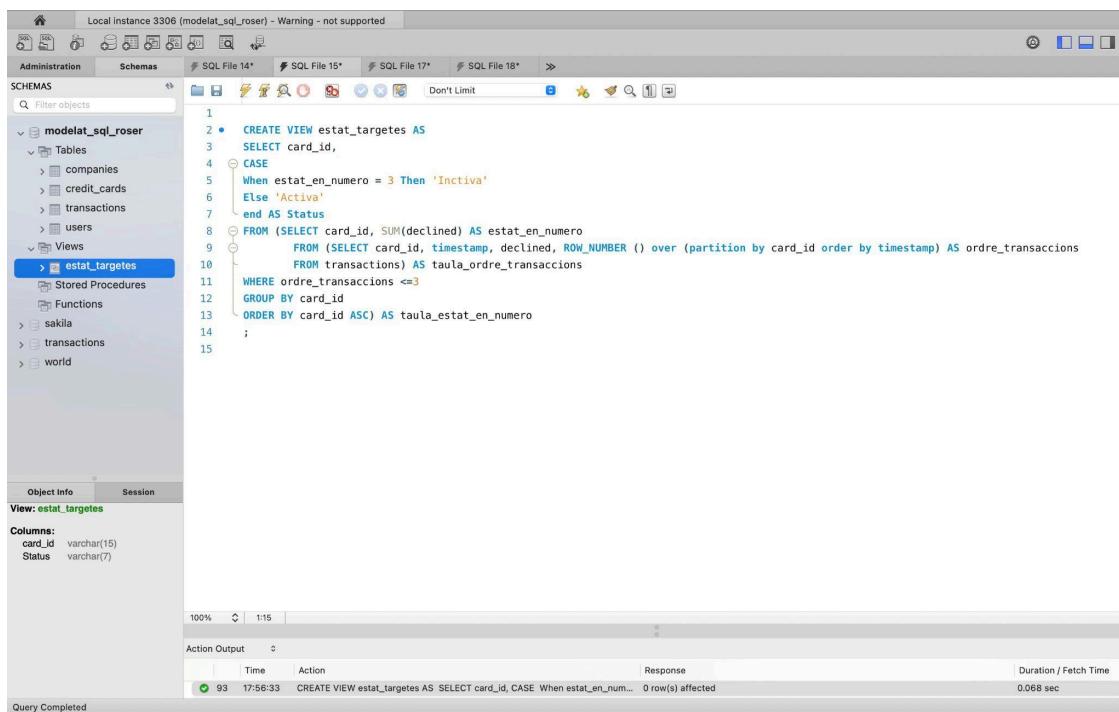
```

The screenshot shows the MySQL Workbench interface with a query editor containing a complex SQL SELECT statement. The statement uses a CASE expression to map the value of the 'estat_en_numero' column to either 'Inactiv' or 'Activa'. It also includes a subquery to calculate the total declined amount for each card and rank the transactions by timestamp. The results are displayed in a 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 |

At the bottom of the interface, the status bar indicates "Query Completed".

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



```

1
2 •  CREATE VIEW estat_targetes AS
3   SELECT card_id,
4   CASE
5     WHEN estat_en_numero = 3 THEN 'Inactiv'
6     ELSE 'Activa'
7   END AS Status
8
9   FROM (SELECT card_id, SUM(declined) AS estat_en_numero
10        FROM (SELECT card_id, timestamp, declined, ROW_NUMBER () over (partition by card_id order by timestamp) AS ordre_transaccions
11          FROM transactions) AS taula_ordre_transaccions
12        WHERE ordre_transaccions <=3
13      GROUP BY card_id
14    ORDER BY card_id ASC) AS taula_estat_en_numero
15

```

The screenshot shows the MySQL Workbench interface with a query editor containing a CREATE VIEW statement. The view is named 'estat_targetes' and selects the 'card_id' and 'Status' columns from the previously defined 'taula_estat_en_numero' temporary table. The status is determined by the CASE expression based on the value of 'estat_en_numero'. The status column is defined with a data type of 'varchar(7)'. The results of the query are shown in the 'Action Output' pane:

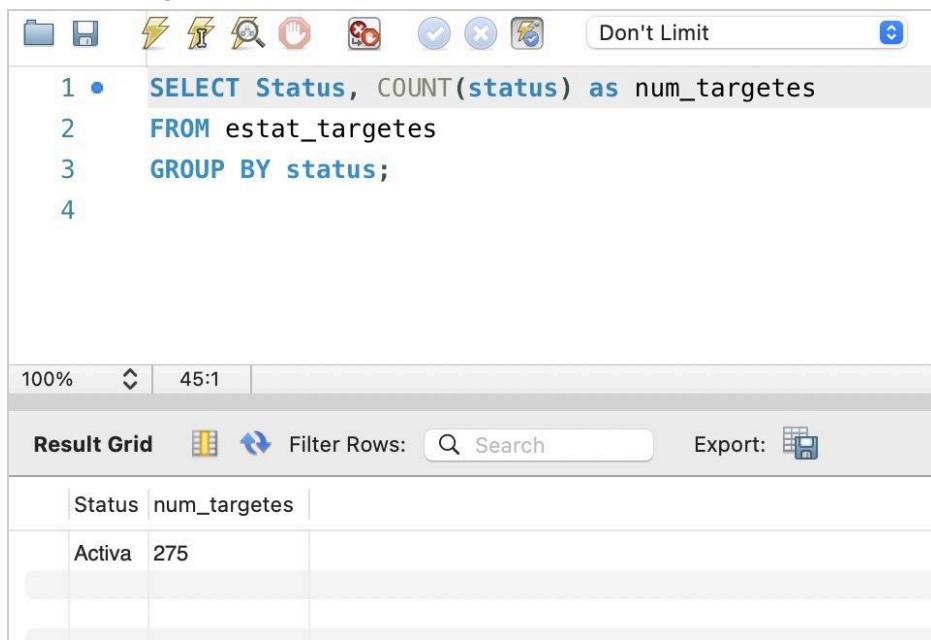
| Time | Action | Response | Duration / Fetch Time |
|------|---|----------|-----------------------|
| 93 | CREATE VIEW estat_targetes AS SELECT card_id, CASE When estat_en_num... 0 row(s) affected | | 0.068 sec |

At the bottom of the interface, the status bar indicates "Query Completed".

- Exercici 1: targetes actives

Quantes targetes estan actives?

Totes les targetes estan actives, 275.



The screenshot shows a MySQL Workbench interface. At the top, there are several icons: a folder, a save, a lightning bolt, a person, a magnifying glass, a refresh, and a help. To the right of these is a dropdown menu set to "Don't Limit". Below the toolbar is a code editor window containing the following SQL query:

```
1 • SELECT Status, COUNT(status) as num_targetes
2 FROM estat_targetes
3 GROUP BY status;
4
```

Below the code editor is a progress bar showing "100%" completion and a timer at "45:1". At the bottom of the interface is a "Result Grid" section. It includes buttons for "Result Grid" (selected), "Filter Rows", "Search" (with a magnifying glass icon), and "Export" (with a disk icon). The result grid itself has two columns: "Status" and "num_targetes". A single row is displayed, showing "Activa" in the "Status" column and "275" in the "num_targetes" column.

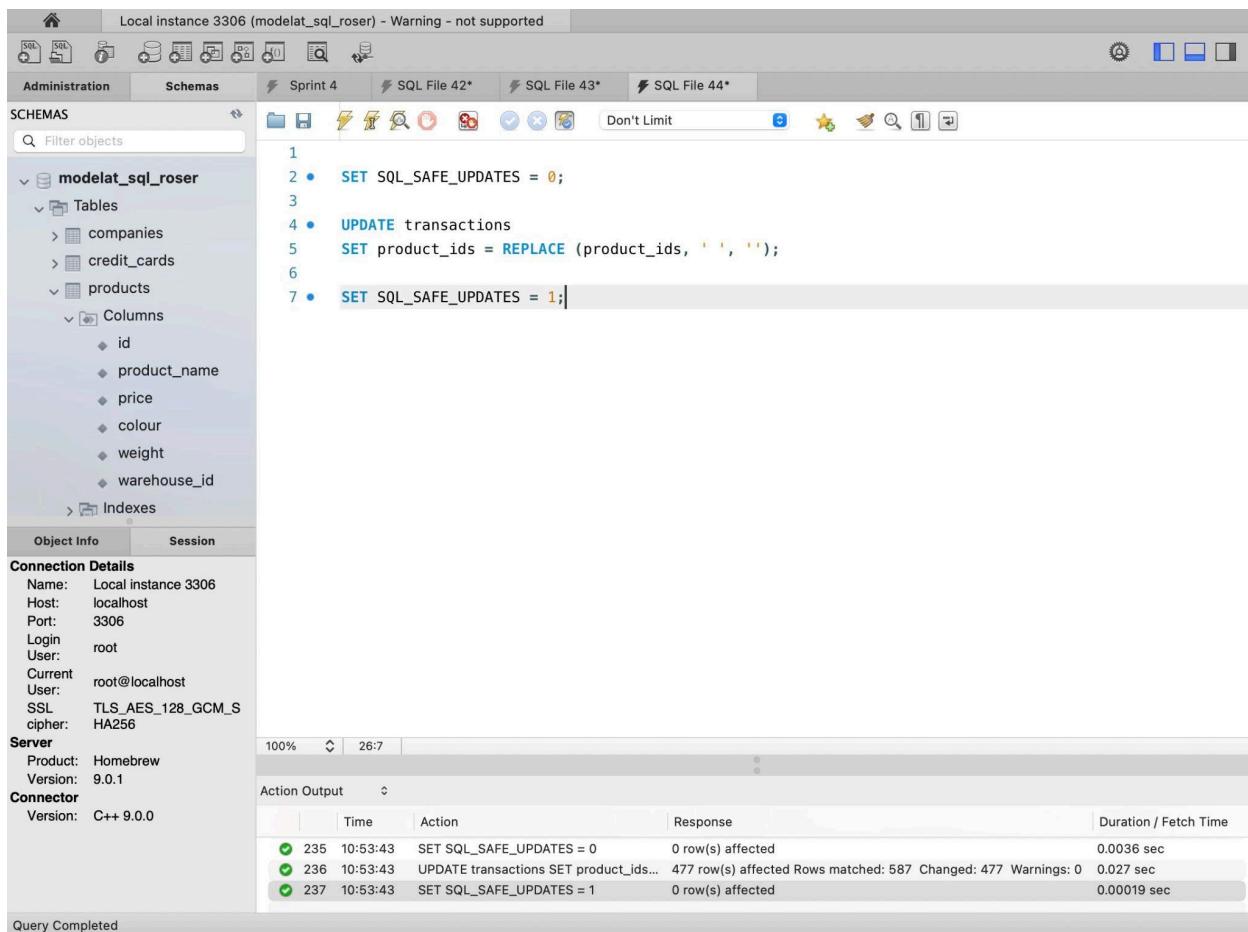
| Status | num_targetes |
|--------|--------------|
| Activa | 275 |

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 Dame | \$119.52 | #141414 | 2.4 | WH-5 |
| 100 | south duell | \$40.43 | #6db6d6 | 3 | WH-95 |
| 11 | Karstark Dame | \$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 structure of the "products" table. The table has columns: id, card_id, business_id, timestamp, amount, declined, product_ids, user_id, lat, and longitude. A query editor window displays the following SQL code:

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

The result grid shows the following data:

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

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

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

The status bar at the bottom indicates "Query Completed".

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

Local Instance 3306 (modelat_sql_roser) - Warning - not supported

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

Filter objects

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 this schema, the 'Tables' node is expanded, showing 'companies', 'credit_cards', 'pont_trans_prod', and 'products'. The 'pont_trans_prod' table is selected, and its details are shown in the main pane. The SQL code for creating the table is:

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

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

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

Below the table, it says 'Query Completed'.

Afegim les relacions a les altres taules

Local instance 3306 (modelat_sql_rosen) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

Tables

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

Object Info Session

Connection Details

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

Server Product: Homebrew Version: 9.0.1

Connector Version: C++ 9.0.0

Action Output 100% 67:2

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

Query Completed

```

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

```

Local instance 3306 (modelat_sql_rosen) - Warning - not supported

Administration Schemas

SCHEMAS Filter objects

Tables

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

Object Info Session

Connection Details

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

Server Product: Homebrew Version: 9.0.1

Connector Version: C++ 9.0.0

Action Output 100% 63:2

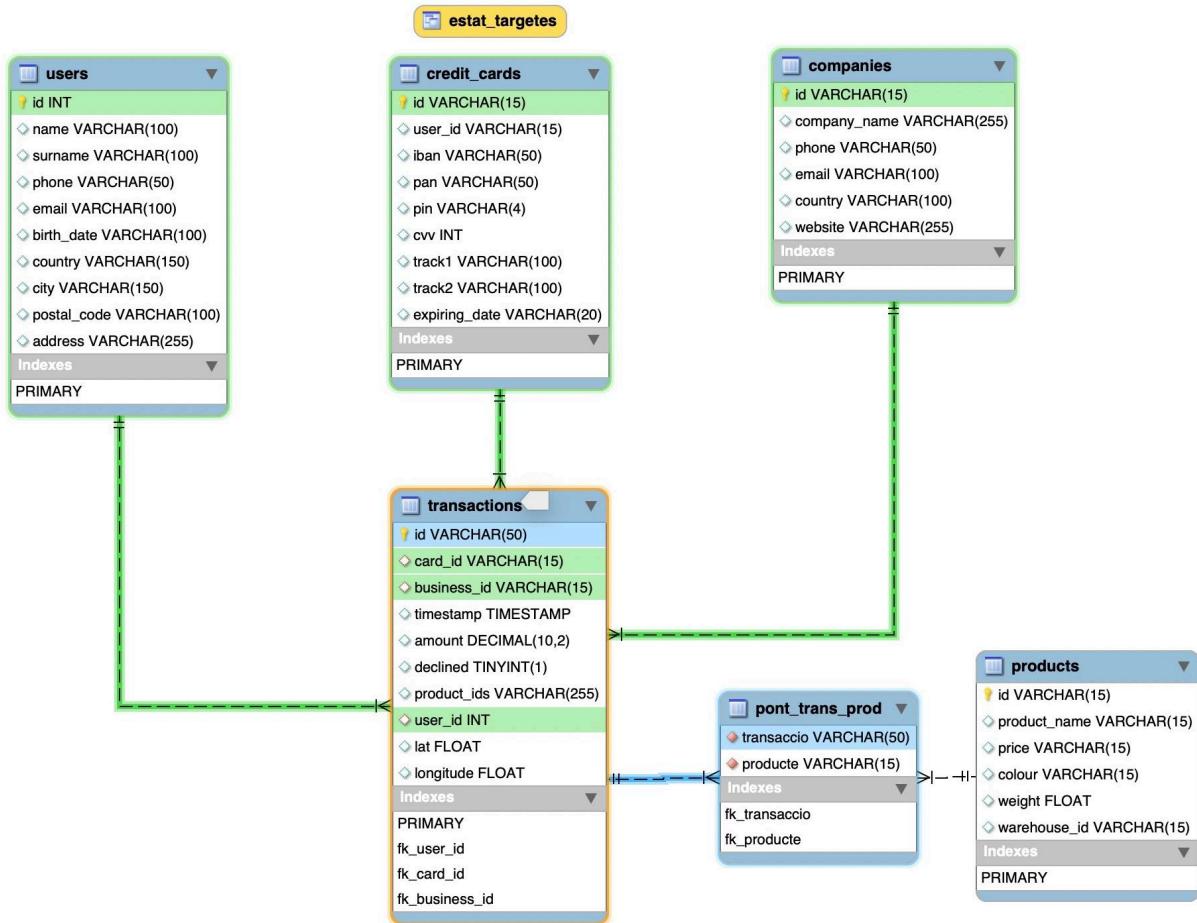
| Action | Time | Response | Duration / Fetch Time |
|---|--------------|--|-----------------------|
| ALTER TABLE pont_trans_prod ADD CONSTRAINT fk_producte foreign key (producte) | 246 12:33:28 | 723 row(s) affected Records: 723 Duplicates: 0 Warnings: 0 | 0.044 sec |

Query Completed

```

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

```



Exercici 1: vendes per producte

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

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

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

SCHEMAS Filter objects

modelat_sql_roser

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

Object Info Session

Connection Details

- Name: Local instance 3306
- Host: localhost
- Port: 3306
- Login: root
- User: current
- 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 |
| ewok | 47 |
| Winterfell | 65 |
| skywalker | 65 |
| ewok | 65 |
| duel | 65 |
| tourney | 65 |
| Karstark | 65 |
| Dorne | 65 |
| bastard | 65 |
| Tarly | 65 |
| Stark | 65 |

Result 12 Read Only

Action Output Time Action Response Duration / Fetch Time

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

Query Completed

Result Grid Form Editor Field Types Query Stats Execution Plan