

Nivell 1

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

He agafat les quatre taules següents per incloure a l'esquema: users, credit_cards, company i transaction

```
CREATE DATABASE IF NOT EXISTS vendes;
```

```
USE vendes;
```

```
CREATE TABLE IF NOT EXISTS users (
```

```
    id          VARCHAR(255) PRIMARY KEY,  
    name        VARCHAR(100),  
    surname     VARCHAR(100),  
    phone       VARCHAR(30),  
    email       VARCHAR(50),  
    birth_date  VARCHAR(25),  
    country     VARCHAR(50),  
    city        VARCHAR(50),  
    postal_code VARCHAR(10),  
    address     VARCHAR(255)
```

```
);
```

```
CREATE TABLE IF NOT EXISTS credit_cards (
```

```
    id          VARCHAR(255) PRIMARY KEY,  
    user_id     VARCHAR(255),  
    iban        VARCHAR(255),  
    pan         VARCHAR(255),  
    pin         VARCHAR(4),  
    cvv        VARCHAR(3),  
    track1      VARCHAR(255),  
    track2      VARCHAR(255),  
    expiring_date VARCHAR(25)
```

```
);
```

```
-- Creamos la tabla company
```

```
CREATE TABLE IF NOT EXISTS companies (
```

```
    id          VARCHAR(255) PRIMARY KEY,  
    name        VARCHAR(255),  
    phone       VARCHAR(15),  
    email       VARCHAR(50),  
    country     VARCHAR(50),  
    website     VARCHAR(255)
```

```
);
```

-- Creamos la tabla transactions

CREATE TABLE IF NOT EXISTS transactions (

id VARCHAR(255) PRIMARY KEY,

card_id VARCHAR(255),

business_id VARCHAR(255),

date_tx VARCHAR(25),

amount DECIMAL(10, 2),

declined BOOLEAN,

product_ids VARCHAR(255),

user_id VARCHAR(255),

lat VARCHAR(255),

longitude VARCHAR(255),

FOREIGN KEY (card_id) REFERENCES credit_cards(id),

FOREIGN KEY (business_id) REFERENCES companies(id),

FOREIGN KEY (user_id) REFERENCES users(id)

);

The screenshot shows the MySQL Workbench interface. The main editor window displays a SQL script for creating the 'transactions' table and loading data from CSV files. The script includes the following SQL statements:

```
CREATE TABLE IF NOT EXISTS transactions (
  id VARCHAR(255) PRIMARY KEY,
  card_id VARCHAR(255),
  business_id VARCHAR(255),
  date_tx VARCHAR(25),
  amount DECIMAL(10, 2),
  declined BOOLEAN,
  product_ids VARCHAR(255),
  user_id VARCHAR(255),
  lat VARCHAR(255),
  longitude VARCHAR(255),
  FOREIGN KEY (card_id) REFERENCES credit_cards(id),
  FOREIGN KEY (business_id) REFERENCES companies(id),
  FOREIGN KEY (user_id) REFERENCES users(id)
);

SHOW VARIABLES LIKE "secure_file_priv";
SELECT @@GLOBAL.secure_file_priv;
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/european_users.csv" INTO TABLE european_users
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, name, surname, phone, email, birth_date, country, city, postal_code, address)
-- SET birth_date = DATE_FORMAT(birth_date, '%Y %d, %Y')
;

LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/american_users.csv" INTO TABLE american_users
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, name, surname, phone, email, birth_date, country, city, postal_code, address)
-- SET birth_date = DATE_FORMAT(birth_date, '%Y %d, %Y')
;
```

The Output window at the bottom shows the execution results of the script:

#	Time	Action	Message	Duration / Fetch
1	13:36:52	CREATE DATABASE IF NOT EXISTS verdes	1 row(s) affected	0.000 sec
2	13:36:53	USE verdes	0 row(s) affected	0.016 sec
3	13:37:00	CREATE TABLE IF NOT EXISTS users (id VARCHAR(255) PRIMARY KEY, name VARCHAR(100), surname VARCHAR(100), phone VARCHAR(20), email VARCHAR(100), birth_date VARCHAR(25), country VARCHAR(25), city VARCHAR(25), postal_code VARCHAR(10), address VARCHAR(255))	0 row(s) affected	0.016 sec
4	13:37:01	CREATE TABLE IF NOT EXISTS credit_cards (id VARCHAR(255) PRIMARY KEY, name VARCHAR(255), ban VARCHAR(255), pan VARCHAR(255), exp VARCHAR(25), cvv VARCHAR(25), card_type VARCHAR(255))	0 row(s) affected	0.016 sec
5	13:37:06	CREATE TABLE IF NOT EXISTS companies (id VARCHAR(255) PRIMARY KEY, name VARCHAR(255), phone VARCHAR(20), email VARCHAR(100), birth_date VARCHAR(25), country VARCHAR(25), city VARCHAR(25), postal_code VARCHAR(10), address VARCHAR(255))	0 row(s) affected	0.015 sec
6	13:37:07	CREATE TABLE IF NOT EXISTS transactions (id VARCHAR(255) PRIMARY KEY, card_id VARCHAR(255), business_id VARCHAR(255), date_tx VARCHAR(25), amount DECIMAL(10, 2), declined BOOLEAN, product_ids VARCHAR(255), user_id VARCHAR(255), lat VARCHAR(255), longitude VARCHAR(255))	0 row(s) affected	0.032 sec

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/european_users.csv" INTO
TABLE users
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, name, surname, phone, email, birth_date, country, city, postal_code, address)
-- SET birth_date = DATE_FORMAT(@birth_date, '%b %d, %Y');
```

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/american_users.csv" INTO
TABLE users
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, name, surname, phone, email, birth_date, country, city, postal_code, address)
-- SET birth_date = DATE_FORMAT(@birth_date, '%b %d, %Y');
```

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.csv" INTO TABLE
credit_cards
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(`id`, `user_id`, `iban`, `pan`, `pin`, `cvv`, `track1`, `track2`, `expiring_date`);
```

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/companies.csv" INTO TABLE
companies
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(`id`, `name`, `phone`, `email`, `country`, `website`);
```

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv" INTO TABLE
transactions
FIELDS TERMINATED BY ';'
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(`id`, `card_id`, `business_id`, `date_tx`, `amount`, `declined`, `product_ids`, `user_id`, `lat`, `longitude`);
```

MySQL Workbench

Local instance MySQL84 x MySQL Model x EER Diagram x

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

- Filter objects
- sakila
- sys
- world

Administration Schemas

Information

No object selected

Query 1

```
-- SET birth_date = DATE_FORMAT(@birth_date, '%Y-%m-%d')
-- SET birth_date = DATE_FORMAT(@birth_date, '%Y-%m-%d')

81 • LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/american_users.csv" INTO TABLE users
82 FIELDS TERMINATED BY ','
83 ENCLOSED BY '"'
84 LINES TERMINATED BY '\n'
85 IGNORE 1 LINES
86 (id, name, surname, phone, email, birth_date, country, city, postal_code, address)
87 -- SET birth_date = DATE_FORMAT(@birth_date, '%Y-%m-%d')
88

90 • LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.csv" INTO TABLE credit_cards
91 FIELDS TERMINATED BY ','
92 ENCLOSED BY '"'
93 LINES TERMINATED BY '\n'
94 IGNORE 1 LINES
95 ('id', 'user_id', 'iban', 'pan', 'pin', 'cvv', 'track1', 'track2', 'expiring_date')
96

98 • LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/companies.csv" INTO TABLE companies
99 FIELDS TERMINATED BY ','
100 ENCLOSED BY '"'
101 LINES TERMINATED BY '\n'
102 IGNORE 1 LINES
103 ('id', 'name', 'phone', 'email', 'country', 'website')
104

105 • LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv" INTO TABLE transactions
106 FIELDS TERMINATED BY ','
107 ENCLOSED BY '"'
108 LINES TERMINATED BY '\n'
109 IGNORE 1 LINES
110 ('id', 'card_id', 'business_id', 'date_tx', 'amount', 'declined', 'product_id', 'user_id', 'lat', 'longitude')
111
```

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

#	Msg	Action	Message	Duration / Fetch
4	13:39:34	CREATE TABLE IF NOT EXISTS credit_cards (id VARCHAR(255) PRIMARY KEY, user_id VARCHAR(255), iban VARCHAR(255), pan VARCHAR(255), pin VARCHAR(255), cvv VARCHAR(255), track1 VARCHAR(255), track2 VARCHAR(255), expiring_date VARCHAR(255))	0 row(s) affected	0.000 sec
5	13:39:37	CREATE TABLE IF NOT EXISTS companies (id VARCHAR(255) PRIMARY KEY, name VARCHAR(255), phone VARCHAR(255), email VARCHAR(255), country VARCHAR(255), website VARCHAR(255))	0 row(s) affected	0.016 sec
6	13:39:40	CREATE TABLE IF NOT EXISTS transactions (id VARCHAR(255) PRIMARY KEY, card_id VARCHAR(255), business_id VARCHAR(255), date_tx VARCHAR(255), amount VARCHAR(255), declined VARCHAR(255), product_id VARCHAR(255), user_id VARCHAR(255), lat VARCHAR(255), longitude VARCHAR(255))	0 row(s) affected	0.031 sec
7	13:39:45	LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/american_users.csv" INTO TABLE users FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES	3990 row(s) affected Records: 3990 Deleted: 0 Skipped: 0 Warnings: 0	0.219 sec
8	13:39:48	LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/american_users.csv" INTO TABLE users FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES	1010 row(s) affected Records: 1010 Deleted: 0 Skipped: 0 Warnings: 0	0.031 sec
9	13:39:50	LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/credit_cards.csv" INTO TABLE credit_cards FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES	5000 row(s) affected Records: 5000 Deleted: 0 Skipped: 0 Warnings: 0	0.140 sec
10	13:39:53	LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/companies.csv" INTO TABLE companies FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0	0.016 sec
11	13:39:55	LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv" INTO TABLE transactions FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES	100000 row(s) affected Records: 100000 Deleted: 0 Skipped: 0 Warnings: 0	5.266 sec

Query Completed

Windows taskbar: Buscar, Uploads, Discord | Fresh..., MySQL Workbench, Sprint4.pdf - Adobe..., Zoom Reunión, Sprint4.docx - L..., Nuevo2 - Note..., ES, 21°C, 13:41, 16/10/2023

Exercici 1

Realitza una subconsulta que mostri tots els usuaris amb més de 80 transaccions utilitzant almenys 2 taules.

```
SELECT u.id, count(u.id) num_tx FROM european_users u
JOIN transactions t ON user_id = u.id
GROUP BY u.id
HAVING count(*) > 80;
```

```
SELECT id FROM european_users
WHERE id IN(
```

```
SELECT user_id FROM transactions
GROUP BY user_id
HAVING count(*) > 80
```

```
);
```

The screenshot shows the MySQL Workbench interface. The main editor displays a query with two parts: a subquery to find users with more than 80 transactions, and a main query to select their IDs. The query is as follows:

```
-- Exercici 1
-- Realitza una subconsulta que mostri tots els usuaris amb més de 80 transaccions utilitzant almenys 2 taules.

SELECT u.id, count(u.id) num_tx FROM european_users u
JOIN transactions t ON user_id = u.id
GROUP BY u.id
HAVING count(*) > 80;

SELECT id FROM european_users
WHERE id IN(
    SELECT user_id FROM transactions
    GROUP BY user_id
    HAVING count(*) > 80
);

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

The left sidebar shows the database schema with tables like `companies`, `european_users`, `products`, `transactions`, and `world`. The bottom panel shows the results of the query, which returned 4 rows.

id
185
289
318
454

The output panel shows the execution of the query, indicating that 4 rows were returned.

Exercici 2

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

```
SELECT iban,AVG(amount),count(*) FROM transactions t
JOIN credit_cards cc ON cc.id = card_id
JOIN companies c ON c.id = t.business_id AND name = 'Donec Ltd'
GROUP BY iban;
```

The screenshot shows the MySQL Workbench interface. The main window displays a SQL query for 'Exercici 2' which calculates the average amount and count of transactions for 'Donec Ltd' grouped by IBAN. The query is as follows:

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

SELECT iban,AVG(amount),count(*) FROM transactions t
JOIN credit_cards cc ON cc.id = card_id
JOIN companies c ON c.id = t.business_id AND name = 'Donec Ltd'
GROUP BY iban;
```

The 'Result Grid' shows the following data:

iban	AVG(amount)	count(*)
XX011406401125586307586805	356.246467	3
9X0946370242474962577306	142.960000	1
XX78782917849592975535640	257.370000	1
XX41382736228973309469990	136.590000	1
XX34787246070769610780308	240.410000	1
XX68768436543090894854602	188.580000	1
MC3836851536680349	439.390000	1
9L7626282566652676345404576	541.560000	3
XX804008331134918341803913	189.210000	1
US6465553777363527873049938	155.500000	2
XX54512784755611381008445	255.830000	1
XX1548768676863690754758	285.110000	1
CR3934463639573721674	240.480000	1
XX8239102392787176786536	85.020000	1
XX8979051542844213813607	271.970000	1
MC9813918248828136126478487	74.310000	1
NC0414757617220	95.365000	2

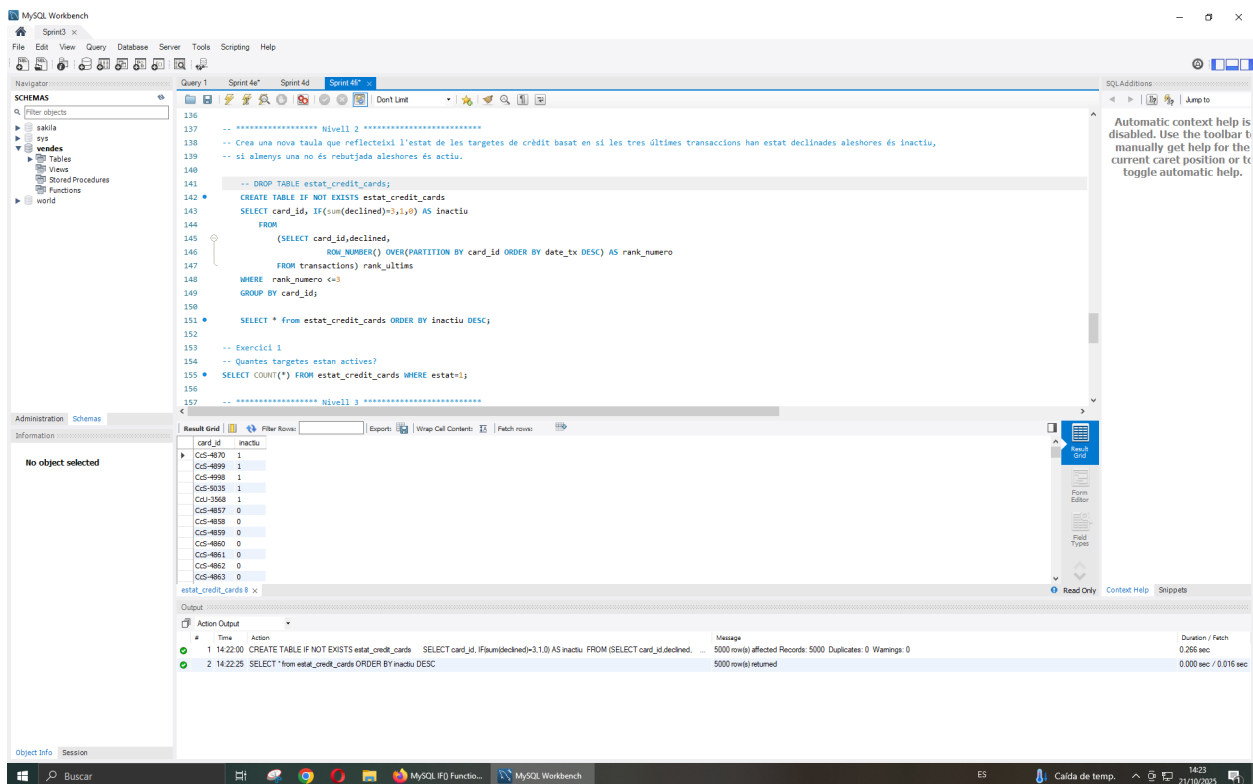
The 'Output' window shows the execution progress of the query, including table creation and data loading messages.

Nivell 2

Crea una nova taula que reflecteixi l'estat de les targetes de crèdit basat en *si les tres últimes transaccions han estat declinades aleshores és inactiu, si almenys una no és rebutjada aleshores és actiu*.

```
CREATE TABLE IF NOT EXISTS estat_credit_cards
  SELECT card_id, IF(sum(declined)=3,1,0) AS inactiu
  FROM
    (SELECT card_id,declined,
      ROW_NUMBER() OVER(PARTITION BY card_id ORDER BY date_tx DESC) AS rank_numero
    FROM transactions) rank_ultims
  WHERE rank_numero <=3
GROUP BY card_id;
```

Hi han 5 cards_id que estàn inactives



Partint d'aquesta taula respon:

Exercici 1

Quantes targetes estan actives?

```
SELECT COUNT(*) FROM estat_credit_cards WHERE estat=1;
```

MySQL Workbench

Local instance MySQL84 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

- zakia
- sys
- world

Query 1 estructura datos user Sprint 407

order by card_id,rank_numero

```
132 )
133
134 SELECT card_id , 0 AS estat FROM ultims ul WHERE EXISTS (SELECT card_id WHERE rank_numero =3 AND card_id = ul.card_id)
135 UNION
136 SELECT DISTINCT(card_id), 1 AS estat FROM transactions WHERE card_id NOT IN ( SELECT card_id FROM ultims ul WHERE EXISTS (SELECT card_id WHERE rank_numero =3 AND card_id = ul.card_id) )
137 )
138
139 -- Exercici 1
140 -- Quantes targetes estan actives?
141
142 SELECT COUNT(*) FROM estat_credit_cards WHERE estat=1;
143
144 -- ***** nivell 3 *****
145 -- Crea una taula amb la qual pugem unir les dades del nou arxiu products.csv amb la base de dades creada, tenint en compte que des de transaction tens product_ids.
146
147 -- Creamos la tabla products
148 DROP TABLE products;
149 CREATE TABLE products (
150     product_id INT(11) UNSIGNED NOT NULL AUTO_INCREMENT PRIMARY KEY,
151     product_name VARCHAR(255) NOT NULL,
152     product_price DECIMAL(10,2) NOT NULL,
153     product_category VARCHAR(255) NOT NULL,
154     product_image VARCHAR(255) NOT NULL,
155     product_description TEXT NOT NULL
156 );
157
158 -- Importar los datos de products.csv a la tabla products
159 LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/products.csv' INTO TABLE products FIELDS TERMINATED BY ',' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

Result Grid

Filter Rows: | Export: | Wrap Cell Contents: |

Result 4

Output

Action Output

Time	Action	Message	Duration / Fetch
9 10:43:43	LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/companies.csv' INTO TABLE companies FIELDS TERMINATED BY ',' LINES TERMINATED BY '\n' IGNORE 1 LINES;	100 (rows) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0	0.016 sec
10 10:43:45	LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/transactions.csv' INTO TABLE transactions FIELDS TERMINATED BY ',' LINES TERMINATED BY '\n' IGNORE 1 LINES;	100000 (rows) affected Records: 100000 Deleted: 0 Skipped: 0 Warnings: 0	3.047 sec
11 10:45:16	SELECT u.id, count(u.id) num_3a FROM european_users u JOIN transactions t ON user_id = u.id GROUP BY u.id HAVING count(*) > 80 LIMIT 0, 4	4 (rows) returned	0.313 sec / 0.000 sec
12 10:46:11	SELECT ban.AVG(amount), count(*) FROM transactions t JOIN credit_cards cc ON cc.id = card_id JOIN companies c ON c.id = t.business_id A...	371 (rows) returned	0.000 sec / 0.000 sec
13 10:47:11	SELECT ban.AVG(amount), count(*) FROM transactions t JOIN credit_cards cc ON cc.id = card_id JOIN companies c ON c.id = t.business_id A...	371 (rows) returned	0.000 sec / 0.000 sec
14 10:47:40	SELECT COUNT(*) FROM estat_credit_cards WHERE estat=1 LIMIT 0, 1000	Error Code: 1146. Table 'verdes.estat_credit_cards' doesn't exist	0.000 sec
15 10:48:21	CREATE TABLE IF NOT EXISTS estat_credit_cards WITH ultims AS (SELECT card_id, data_3a, declined, ROW_NUMBER() OVER(PARTIT...	5000 (rows) affected Records: 5000 Duplicates: 0 Warnings: 0	0.203 sec
16 10:48:31	SELECT COUNT(*) FROM estat_credit_cards WHERE estat=1 LIMIT 0, 1000	1 (rows) returned	0.000 sec / 0.000 sec

Object Info Session

Information

No object selected

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SQL Additions

Read Only Contact Help Skipets

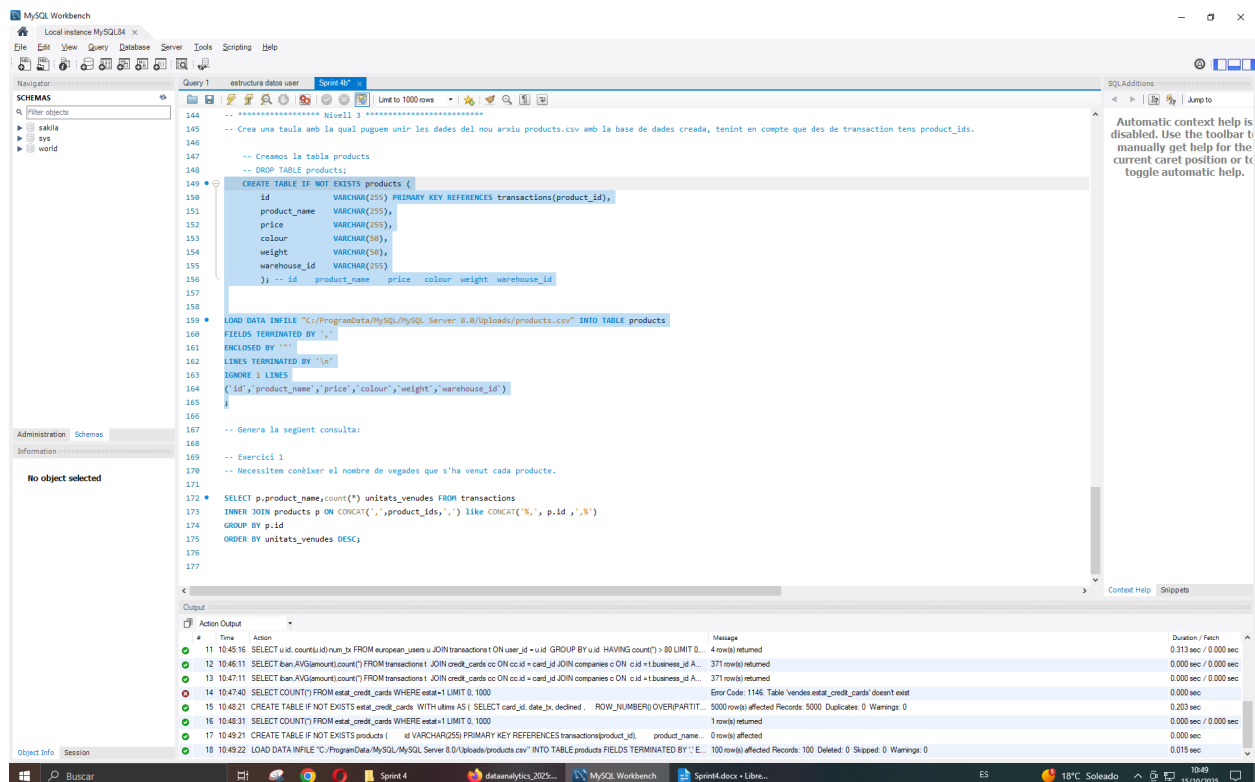
18°C Soleado 15/10/2025

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:

```
CREATE TABLE IF NOT EXISTS products (  
    id VARCHAR(255) PRIMARY KEY REFERENCES transactions(product_id),  
    product_name VARCHAR(255),  
    price VARCHAR(255),  
    colour VARCHAR(50),  
    weight VARCHAR(50),  
    warehouse_id VARCHAR(255)  
);
```

```
LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/products.csv" INTO TABLE  
products  
FIELDS TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\n'  
IGNORE 1 LINES  
(`id`,`product_name`,`price`,`colour`,`weight`,`warehouse_id`)  
;
```



Exercici 1

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

```
SELECT p.id,count(*) unitats_venudes FROM transactions
INNER JOIN products p ON CONCAT(' ',product_ids,',') like CONCAT('% ', p.id ',,%')
GROUP BY p.id
ORDER BY unitats_venudes DESC;
```

The screenshot shows the MySQL Workbench interface. The 'Query Editor' window contains a SQL script with a query to load data from a CSV file and a query to find the number of units sold for each product. The 'Results' window shows the output of the query, displaying a table with two columns: 'id' and 'unitats_venudes'. The 'Output' window shows the execution log, including messages and warnings.

Query Editor:

```
172
173
174 • LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/products.csv' INTO TABLE products
175 FIELDS TERMINATED BY ','
176 ENCLOSED BY '"'
177 LINES TERMINATED BY '\n'
178 IGNORE 1 LINES
179 ('id','product_name','price','colour','weight','warehouse_id')
180
181
182 -- Genera la següent consulta:
183
184 -- Exercici 1
185 -- Necessitem conèixer el nombre de vegades que s'ha venut cada producte.
186
187 • SELECT p.id,count(*) unitats_venudes FROM transactions
188 INNER JOIN products p ON CONCAT(' ',product_ids,',') like CONCAT('% ', p.id ',,%')
189 GROUP BY p.id
190 ORDER BY unitats_venudes DESC;
191
192 -- 253391(Total registres)
193
194
```

Results:

id	unitats_venudes
52	2654
29	2635
21	2609
16	2608
66	2601
87	2598
33	2597
48	2597

Output:

#	Time	Action	Message	Duration / Fetch
13	13:42:40	SELECT COUNT(*) FROM estat_credt_cards WHERE estat=1	Err: Code: 1146. Table 'ventas_estat_credt_cards' doesn't exist	0.000 sec
14	13:42:48	CREATE TABLE IF NOT EXISTS estat_credt_cards WITH ULTIMAS AS (SELECT card_id, date_tx, declined, ROW_NUMBER() OVER(PARTITION BY card_id ORDER BY date_tx DESC) AS row_num FROM estat_credt_cards WHERE estat=1)	5000 row(s) affected Records: 5000 Duplicates: 0 Warnings: 0	0.218 sec
15	13:42:50	SELECT COUNT(*) FROM estat_credt_cards WHERE estat=1	1 row(s) returned	0.000 sec / 0.000 sec
16	13:43:09	SELECT p.id,count(*) unitats_venudes FROM transactions INNER JOIN products p ON CONCAT(' ',product_ids,',') like CONCAT('% ', p.id ',,%')	Err: Code: 1146. Table 'ventas_products' doesn't exist	0.000 sec
17	13:43:36	LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/products.csv' INTO TABLE products FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES ('id','product_name','price','colour','weight','warehouse_id')	Err: Code: 1146. Table 'ventas_products' doesn't exist	0.000 sec
18	13:43:39	CREATE TABLE IF NOT EXISTS products (id VARCHAR(255) PRIMARY KEY REFERENCES transactions(product_id), product_name VARCHAR(255), price DECIMAL(10,2), colour VARCHAR(255), weight DECIMAL(10,2), warehouse_id VARCHAR(255))	0 row(s) affected	0.000 sec
19	13:43:41	LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/uploads/products.csv' INTO TABLE products FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES ('id','product_name','price','colour','weight','warehouse_id')	100 row(s) affected Records: 100 Deleted: 0 Skipped: 0 Warnings: 0	0.000 sec
20	13:43:43	SELECT p.id,count(*) unitats_venudes FROM transactions INNER JOIN products p ON CONCAT(' ',product_ids,',') like CONCAT('% ', p.id ',,%')	100 row(s) returned	3.328 sec / 0.000 sec