

Descarga los archivos CSV, estudiales y diseña una base de datos con un esquema de estrella que contenga, al menos 4 tablas de las que puedas realizar las siguientes consultas:

MySQL Workbench interface showing the SQL Editor with the following code:

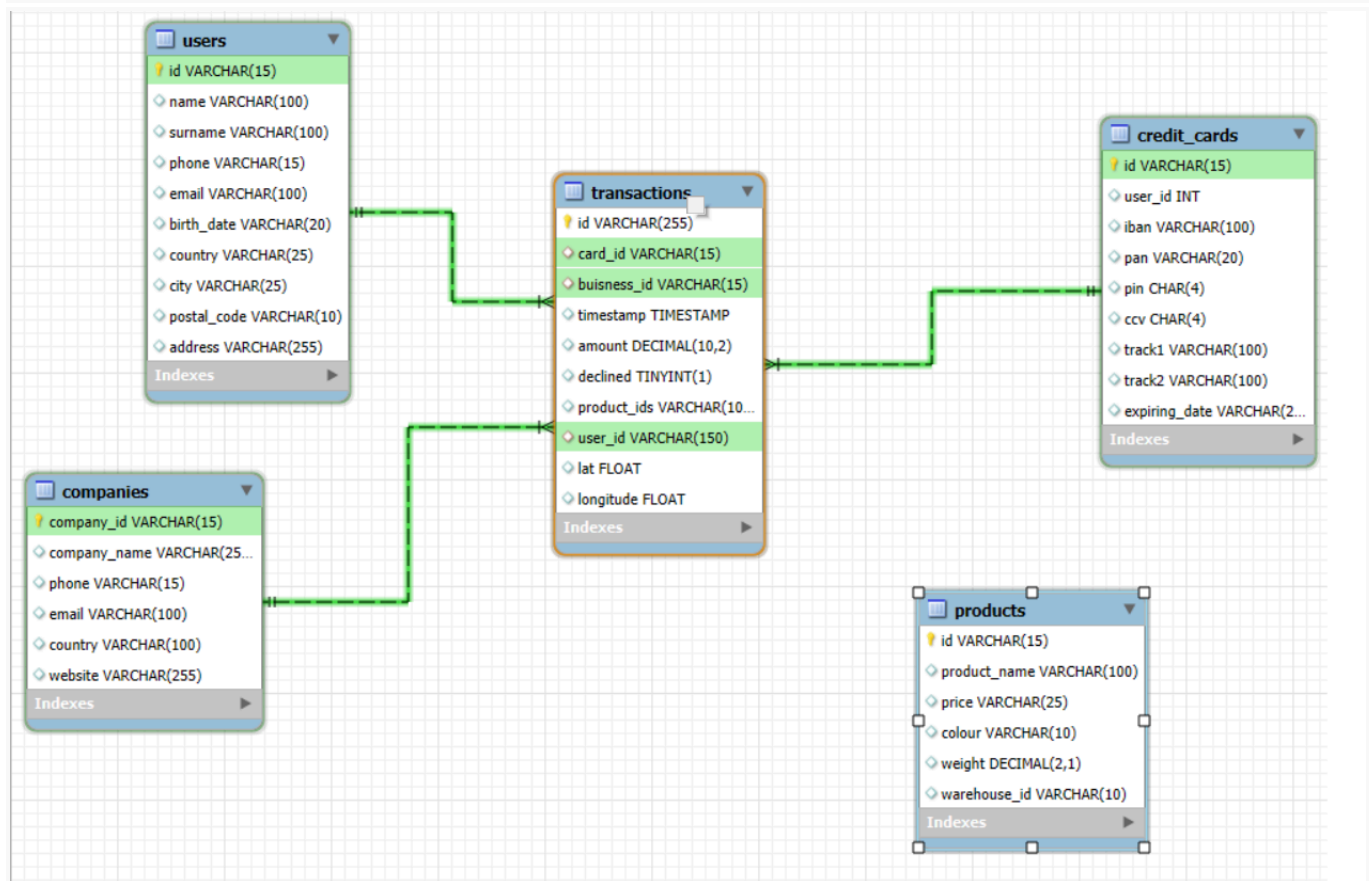
```

45 warehouse_id VARCHAR(10) -- hay algunos errores con los guiones ( WH-2 y WH--2)
46 );
47
48 CREATE TABLE IF NOT EXISTS users (
49   id VARCHAR(15) PRIMARY KEY,
50   name VARCHAR(100),
51   surname VARCHAR(100),
52   phone VARCHAR(15),
53   email VARCHAR(100),
54   birth_date VARCHAR(20), -- formato "Mes DD, YYYY"
55   country VARCHAR(25),
56   city VARCHAR(25),
57   postal_code VARCHAR(10), -- viene en un formato extraño con letras
58   address VARCHAR(255)
59 );
60 /*en esta parte declaro todas las FK*/
61 ALTER TABLE transactions
62 ADD constraint Fk_transactions_users foreign key (user_id) REFERENCES users (id),
63 ADD constraint Fk_transactions_companies foreign key (buisness_id) REFERENCES companies (company_id),
64 ADD constraint Fk_transactions_credit_cards foreign key (card_id) REFERENCES credit_cards (id);
65 /*ADD constraint Fk_transaction_products foreign key (product_ids) REFERENCES products (id); omitire esta ya cada transaccion pu
66
67
68

```

The Output window shows the execution results:

#	Time	Action	Message	Duration / Fetch
2	11:55:34	ALTER TABLE transactions CHANGE user_id varchar(150)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.125 sec
3	11:56:02	ALTER TABLE transactions ADD constraint Fk_transactions_users foreign key (user_id) REFERENCE...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.187 sec



En esta parte introduzco los datos de los archivos csv a las tablas creadas

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'sprint4' database schema with tables like 'companies', 'credit_cards', 'products', 'transactions', and 'users'. The central editor window contains a SQL script with the following lines:

```
1 SHOW VARIABLES LIKE "secure_file_priv"; -- este codigo es para verificar cual es el directorio seguro
2 LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/transactions.csv' -- los slash van asi "/" no asi "\" porque? no s
3 INTO TABLE transactions
4 FIELDS TERMINATED BY ','
5 LINES TERMINATED BY '\n'
6 IGNORE 1 ROWS;
7
8
9
```

The 'Output' pane at the bottom shows an error message: 'Error Code: 1290. The MySQL server is running with the --secure-file-priv option so it cannot execute this statement'. The 'SQLAdditions' pane on the right contains a message about disabled automatic context help.

- Ejercicio 1

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

The screenshot shows the MySQL Workbench interface with a new SQL query in the central editor window:

```
1 SELECT user_id,
2       (SELECT name FROM users WHERE id = t.user_id) AS name,
3       COUNT(t.user_id) AS num_trans
4 FROM transactions t
5 GROUP BY user_id
6 HAVING num_trans >= 30;
```

The 'Result Grid' pane displays the following data:

user_id	name	num_trans
267	Ocean	52
272	Hedwig	76
275	Kenyon	48
92	Lynn	39

The 'Output' pane at the bottom shows the execution details: '1 11:25:10 SELECT user_id. (SELECT name FROM users WHERE id = t.user_id) AS name. COUNT(t.u... 4 row(s) returned'.

- Ejercicio 2

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 SELECT c.iban, cm.company_name, avg(t.amount)
2 FROM transactions t
3 JOIN credit_cards c ON t.card_id=c.id
4 JOIN companies cm ON t.business_id=cm.company_id
5 GROUP BY c.iban, cm.company_name
6 HAVING cm.company_name = 'Donec Ltd'
7 ;
```

The result grid shows the following data:

iban	company_name	avg(t.amount)
PT87806228135092429456346	Donec Ltd	203.715000

The Output panel shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	13:47:07	SELECT c.iban, cm...	1 row(s) returned	0.000 sec / 0.000 sec

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 CREATE TABLE card_status AS
2 WITH ultimas_3 AS (
3 SELECT t.card_id, t.declined,
4 ROW_NUMBER() OVER (PARTITION BY t.card_id ORDER BY t.timestamp DESC) AS rn
5 FROM transactions t
6 )
7
8 SELECT card_id, COUNT(declined) AS declinaciones,
9 CASE
10 WHEN COUNT(declined) >= 3 THEN 'inactiva'
11 ELSE 'activa'
12 END AS status
13 FROM ultimas_3
14 WHERE rn <= 3
15 GROUP BY card_id
16 ORDER BY declinaciones DESC;
17 ALTER TABLE card_status
18 ADD PRIMARY KEY (card_id);
19 ALTER TABLE transactions
20 ADD constraint fk_transactions_card_status foreign key (card_id) REFERENCES card_status (card_id);
21
```

The Output panel shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	11:57:55	CREATE TABLE card_status AS WITH ultimas_3 AS (SELECT t.card_id, t.declined, ROW_N...	275 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 sec
2	11:57:55	ALTER TABLE card_status ADD PRIMARY KEY (card_id)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.078 sec
3	11:57:55	ALTER TABLE transactions ADD constraint fk_transactions_card_status foreign key (card_id) REFER...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.015 sec

Ejercicio 1

¿Cuántas tarjetas están activas?

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view with 'sakila' and 'sprint4' schemas. Under 'sprint4', there are tables like 'card_status', 'companies', 'credit_cards', 'products', 'transaction_products', 'transactions', and 'users'. The 'card_status' table is selected, showing its columns: 'card_id' (varchar(15) PK), 'declinaciones' (bigint), and 'status' (varchar(8)).

The main editor shows a SQL query in 'SQL File 7':

```
1 SELECT COUNT(status) as active_cards
2 FROM card_status
3 WHERE status = 'activa';
4
5
```

The 'Result Grid' shows the result of the query:

active_cards
256

The 'Output' pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	12:12:33	SELECT COUNT(status) as active_cards FROM card_status WHERE status = 'activa'	1 row(s) returned	0.000 sec / 0.000 sec

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

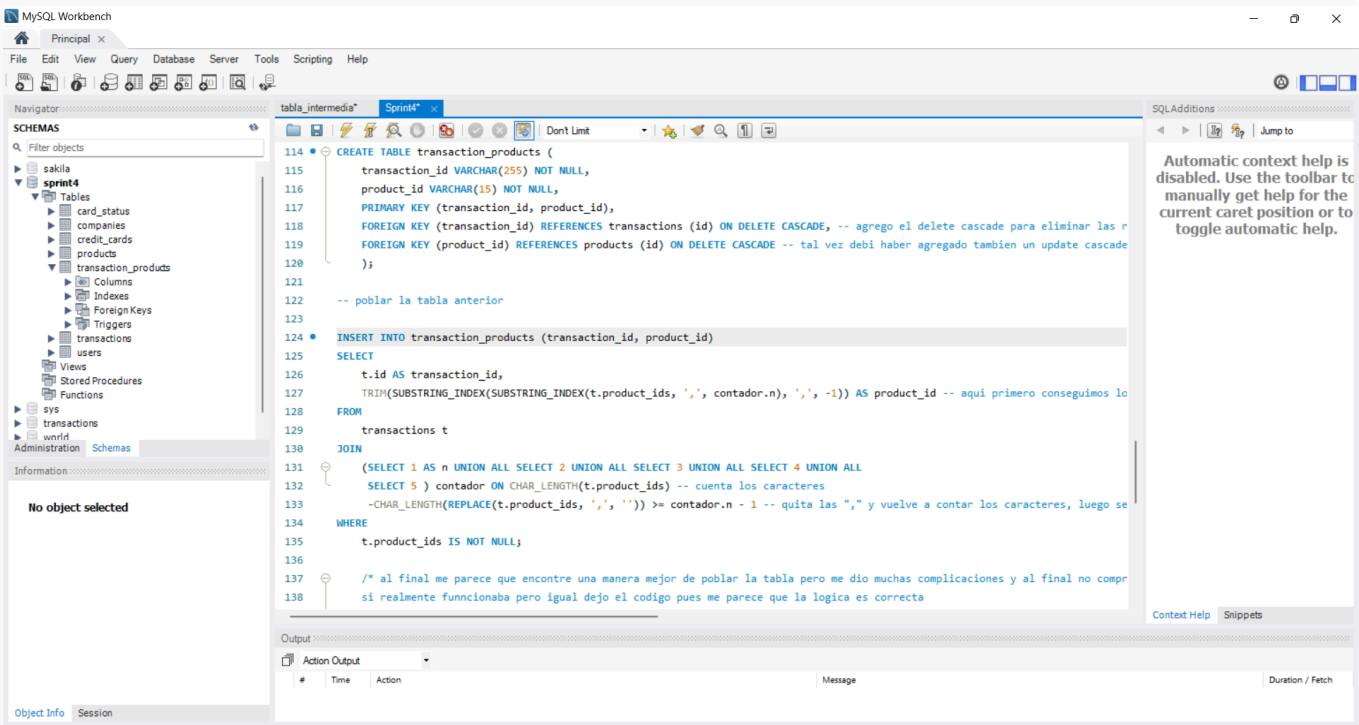
The screenshot shows the MySQL Workbench interface. The 'SCHEMAS' pane shows the 'sprint4' schema selected. The main editor shows a SQL query in 'SQL File 7':

```
1 CREATE TABLE transaction_products (
2   transaction_id VARCHAR(255) NOT NULL,
3   product_id VARCHAR(15) NOT NULL,
4   PRIMARY KEY (transaction_id, product_id),
5   FOREIGN KEY (transaction_id) REFERENCES transactions (id) ON DELETE CASCADE, -- agrego el delete cascade para eliminar las rel.
6   FOREIGN KEY (product_id) REFERENCES products (id) ON DELETE CASCADE
7 );
8
9
```

The 'Output' pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	10:43:48	CREATE TABLE transaction_products (transaction_id VARCHAR(255) NOT NULL, product_id V...	0 row(s) affected	0.047 sec

el siguiente código es el que use para poblar la tabla recién creada



Ejercicio 1

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

