

Arleen Torregrosa - Tasca S4.01

The screenshot shows a MySQL IDE interface with a local instance named '3306'. The 'Schemas' tab is active, displaying a tree view on the left with the 'sprint4' database selected. The main editor area contains a SQL script with the following content:

```
1  /*Descarga los archivos CSV, estudiales y diseña una base de datos con un esquema
2  de estrella que contenga, al menos 4 tablas de las que puedas realizar las siguientes consultas: */
3
4  • CREATE DATABASE sprint4;
5
6  • CREATE TABLE transactions (
7      id VARCHAR(100) PRIMARY KEY,
8      card_id VARCHAR(15),
9      business_id VARCHAR(20),
10     timestamp TIMESTAMP,
11     amount DECIMAL(10,2),
12     declined TINYINT(1),
13     product_ids VARCHAR(30),
14     user_id INT, -- Sin número en los paréntesis
15     lat FLOAT,
16     longitude FLOAT
17 );
18
19 • show global variables like "local_infile";
20 • set global local_infile = 1;
21
22 -- sigue error
23 • show grants;
24 • GRANT FILE on *.* to 'root'@'localhost';
25
26 • SHOW SESSION VARIABLES LIKE 'local_infile';
```

The interface includes a top toolbar with various icons, a 'Limit to 1000 rows' dropdown, and a bottom status bar showing '100%' zoom and '38:191' lines.

Local instance 3306

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Arleen tasca S3.01

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Object Info

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Schema: sprint4

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Limit to 1000 rows

SHOW SESSION VARIABLES LIKE 'local_infile';

show variables like 'pid_file';

SHOW VARIABLES LIKE 'secure_file_priv';

LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/transactions.csv'

INTO TABLE transactions

FIELDS TERMINATED BY ';'

ENCLOSED BY ''''

LINES TERMINATED BY '\r\n'

IGNORE 1 ROWS;

-- credit card

CREATE TABLE credit_cards (

id VARCHAR(20) PRIMARY KEY,

user_id varchar (20),

iban VARCHAR(50),

pan VARCHAR (20),

pin VARCHAR(4),

cvv INT,

track1 varchar(50),

track2 varchar(50),

expiring_date VARCHAR(20)

);

100%

38:191

Action Output

Time

Action

Response

Duration / Fetch Time

SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

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Limit to 1000 rows

LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/credit_cards.csv'

INTO TABLE credit_cards

FIELDS TERMINATED BY ','

ENCLOSED BY ''''

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

-- tabla products

CREATE TABLE products (

id VARCHAR(20) PRIMARY KEY,

product_name varchar (50),

price VARCHAR(10),

colour VARCHAR(20),

weight VARCHAR(20),

warehouse_id VARCHAR(20)

);

LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/products.csv'

INTO TABLE products

FIELDS TERMINATED BY ','

ENCLOSED BY ''''

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

-- companies

100%

38:191

Action Output

Time	Action	Response	Duration / Fetch Time
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SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

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-- companies

CREATE TABLE companies (

company_id VARCHAR(100) PRIMARY KEY,

company_name VARCHAR(255) NOT NULL,

phone VARCHAR(20),

email VARCHAR(100) UNIQUE,

country VARCHAR(100),

website VARCHAR(255)

);

LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/companies.csv'

INTO TABLE companies

FIELDS TERMINATED BY ','

ENCLOSED BY ''''

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

-- users

CREATE TABLE users (

id VARCHAR(255) PRIMARY KEY,

name VARCHAR(100),

surname VARCHAR(100),

phone VARCHAR(200),

email VARCHAR(150),

birth_date VARCHAR(100),

Limit to 1000 rows

100%

38:191

Action Output

Time

Action

Response

SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

Local instance 3306

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Arleen tasca s4.01*Arleen tasca S3.01Tasca S2.01transactionsusers

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systransactions

Object InfoSession

Schema: sprint4

93

-- users

94 • CREATE TABLE users (

95 id VARCHAR(255) PRIMARY KEY,

96 name VARCHAR(100),

97 surname VARCHAR(100),

98 phone VARCHAR(200),

99 email VARCHAR(150),

100 birth_date VARCHAR(100),

101 country VARCHAR(100),

102 city VARCHAR(100),

103 postal_code VARCHAR(200),

104 address VARCHAR(255)

105);

106

107 • LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/users_ca.csv'

108 INTO TABLE users

109 FIELDS TERMINATED BY ','

110 ENCLOSED BY ''''

111 LINES TERMINATED BY '\r\n'

112 IGNORE 1 ROWS;

113

114 • LOAD DATA LOCAL INFILE '/Users/arlintv/Downloads/sprint4/users_uk.csv'

115 INTO TABLE users

116 FIELDS TERMINATED BY ','

117 ENCLOSED BY ''''

118 LINES TERMINATED BY '\r\n'

100%9:93

Action Output

Time	Action	Response	Duration / Fetch Time
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SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

138 • ALTER TABLE transactions

Response

Local instance 3306

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ALTER TABLE transactions

RENAME COLUMN business_id to company_id;

-- Agrego FK

ALTER TABLE transactions

ADD CONSTRAINT fk_card_id FOREIGN KEY (card_id)

REFERENCES credit_cards(card_id)

ON DELETE CASCADE ON UPDATE CASCADE;

ALTER TABLE transactions

ADD CONSTRAINT fk_company_id FOREIGN KEY (company_id)

REFERENCES companies(company_id)

ON DELETE CASCADE ON UPDATE CASCADE;

ALTER TABLE transactions MODIFY COLUMN product_id varchar(200);

ALTER TABLE products MODIFY COLUMN product_id varchar(200);

ALTER TABLE transactions

ADD foreign key (user_id) references users(id);

/* la tabla products no la haré por ahora, me da muchos errores y ya logre conectar 4 tablas

ALTER TABLE transactions

ADD CONSTRAINT fk_product_id FOREIGN KEY (product_id)

REFERENCES products(product_id)

ON DELETE CASCADE ON UPDATE CASCADE;

Limit to 1000 rows

100%

9:93

Action Output

Time

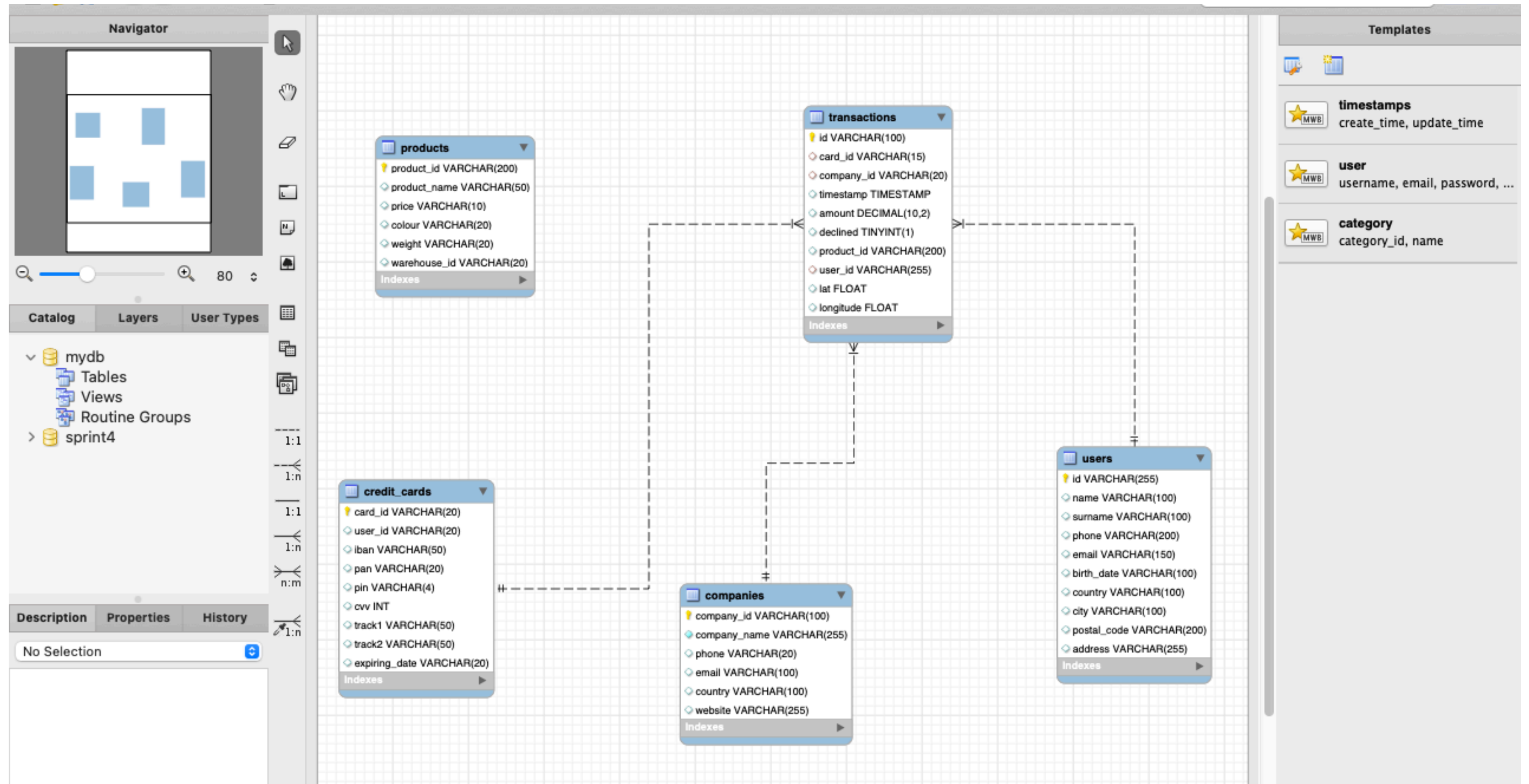
Action

Response

Duration / Fetch Time

SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

Base de datos diseñada:



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Limit to 1000 rows

WHERE product_id NOT IN (SELECT product_id FROM products);

*/

/*- Ejercicio 1

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

*/

-- primero la hice sin hacer subconsulta, pero en la revisión me lo comentaron, así que la cambié

/* SELECT u.name, u.surname, count(t.user_id) as numero_transacciones

from users as u

JOIN transactions t ON t.user_id = u.id

group by u.name, u.surname

having numero_transacciones >= 30

order by numero_transacciones desc; */

-- Usando subconsulta

SELECT u.name, u.surname, t.numero_transacciones

FROM users u

JOIN (

SELECT user_id, COUNT(*) AS numero_transacciones

FROM transactions

GROUP BY user_id

HAVING COUNT(*) >= 30

) AS t ON u.id = t.user_id

ORDER BY t.numero_transacciones DESC;

100%

9:93

Action Output

Time	Action	Response	Duration / Fetch Time
------	--------	----------	-----------------------

SQL script saved to '/Users/arlintv/Downloads/Arleen tasca s4.01.sql'

views

Stored Proce...

Functions

> sys

> transactions

Object Info

Session

Schema: **sprint4**

187

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191

FROM transactions

GROUP BY user_id

HAVING COUNT(*) >= 30

) AS t ON u.id = t.user_id

ORDER BY t.numero_transacciones DESC;

100%

30:182

Result Grid

Filter Rows:

Search

Export:

	name	surname	numero_transaccion...
	Hedwig	Gilbert	76
	Ocean	Nelson	52
	Kenyon	Hartman	48
	Lynn	Riddle	39








Result 1

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
✓ 1	15:04:45	SELECT u.name, u.surname, t.numero_transacciones FROM users u JOIN (SELECT user_id, C...	4 row(s) returned	0.019 sec / 0.00057 s...

Query Completed

- >  transactions
- >  users
-  Views
-  Stored Proce...
-  Functions
- >  sys
- >  transactions

```

192  /* - Ejercicio 2
193  Muestra la media de amount por IBAN de las tarjetas de crédito en la compañía Donec Ltd., utiliza por lo menos 2 tablas. */
194
195  •  SELECT c_c.iban, avg (t.amount) as media_ventas, c.company_name
196         from transactions as t
197        JOIN companies c ON c.company_id = t.company_id
198        JOIN credit_cards c_c ON c_c.card_id = t.card_id
199        WHERE c.company_name = 'Donec Ltd'
200        group by c_c.iban;

```

Result Grid

Filter Rows:

Search

Export:

iban

media_ventas

company_name

PT87806228135092429456346

203.715000

Donec Ltd

Result 2

Read Only

Action Output

Time

Action

Response

Duration / Fetch Time

1

15:26:58

SELECT c.c.iban, avg (t.amount) as media_ventas, c.company_name from transactions as t JOIN...

1 row(s) returned

0.010 sec / 0.000014...

2

15:26:58

SELECT c.c.iban, avg (t.amount) as media_ventas, c.company_name from transactions as t JOIN...

1 row(s) returned

0.010 sec / 0.000014...

Result Grid

Form Editor

Local instance 3306

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/* Nivel 2

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:

Ejercicio 1: ¿Cuántas tarjetas están activas? */

-- Mi planteamiento es desglosar paso por paso, para poder entender los nuevos conceptos como el uso de "with", las ventanas

-- y asignacion de un orden en la tabla

•

SELECT card_id, declined, timestamp,

ROW_NUMBER() OVER (PARTITION BY card_id ORDER BY timestamp DESC) AS fila

FROM transactions;

-- en este paso le asigno un orden a cada transaccion de una card_id

•

WITH ultimastransacciones AS (

SELECT card_id, declined, timestamp,

ROW_NUMBER() OVER (PARTITION BY card_id ORDER BY timestamp DESC) AS fila

FROM transactions) SELECT * FROM ultimastransacciones WHERE fila <= 3;

-- aqui ordeno las transacciones por fecha y selecciono las ultimas tres transacciones, al quere continuar con esta consulta

-- me daba errorer de syntax, entonces tuve que ubicar la seleccion de las ultimas tres transferencias en el bloque siguiente

-- que es hacer un bucle para determinar las tarjetas que estan activas

•

create table estado_tarjeta as

(

•

WITH ultimastransacciones AS (

SELECT card_id, declined, timestamp,

Limit to 1000 rows

100%

9:93

Action Output

Time

Action

Response

Duration / Fetch Time

SQL script saved to 'Users\arlintv\Downloads\Arleen tasca s4.01.sql'

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Limit to 1000 rows

```
222
223
224
225 • create table estado_tarjeta as
226 (
227   WITH ultimastransacciones AS (
228     SELECT card_id, declined, timestamp,
229           ROW_NUMBER() OVER (PARTITION BY card_id ORDER BY timestamp DESC) AS fila
230     FROM transactions
231   ),
232   estado_transaccion AS (
233     SELECT card_id, SUM(declined) AS declinaciones,
234           CASE
235             WHEN SUM(declined) = 3 THEN 'BLOQUEADA'
236             ELSE 'ACTIVA'
237           END AS estado_tarjeta
238     FROM ultimastransacciones
239     WHERE fila <= 3
240     GROUP BY card_id
241   )
242   SELECT * FROM estado_transaccion
243 );
```

Genero las conexiones necesarias y hago la consulta:

Stored Proce...

Functions

> sys

> transactions

246 • ALTER TABLE estado_tarjeta

247 add primary key (card_id);

248

249 • ALTER TABLE estado_tarjeta

250 add foreign key (card_id) references credit_cards(card_id);

251

252 • SELECT count(estado_tarjeta) as conteo_tarjetas

253 FROM estado_tarjeta

254 where estado_tarjeta = 'ACTIVA' ;

255 -- Como resultado: 275 tarjetas activas

256

257

100% 3:243

Result Grid

Filter Rows: Search

Export:

Result Grid

Form Editor

conteo_tarjet...
275

Result 3 Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
3	15:28:30	SELECT count(estado_tarjeta) as conteo_tarjetas FROM estado_tarjeta where estado_tarjeta = 'ACTIVA' ;	1 row(s) returned	0.0036 sec / 0.00001...

Diseño de la base de datos con la nueva tabla, en donde se observa un modelo de copo de nieve.

