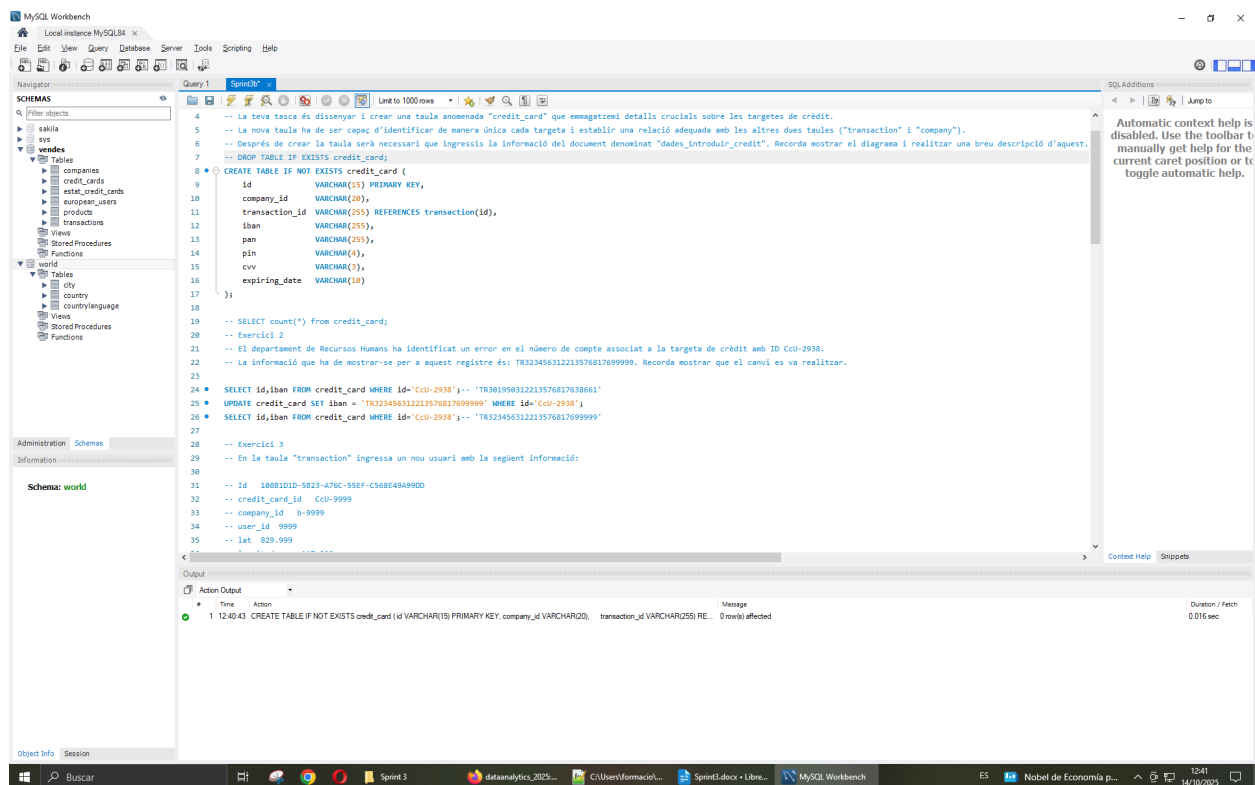


Exercici 1:

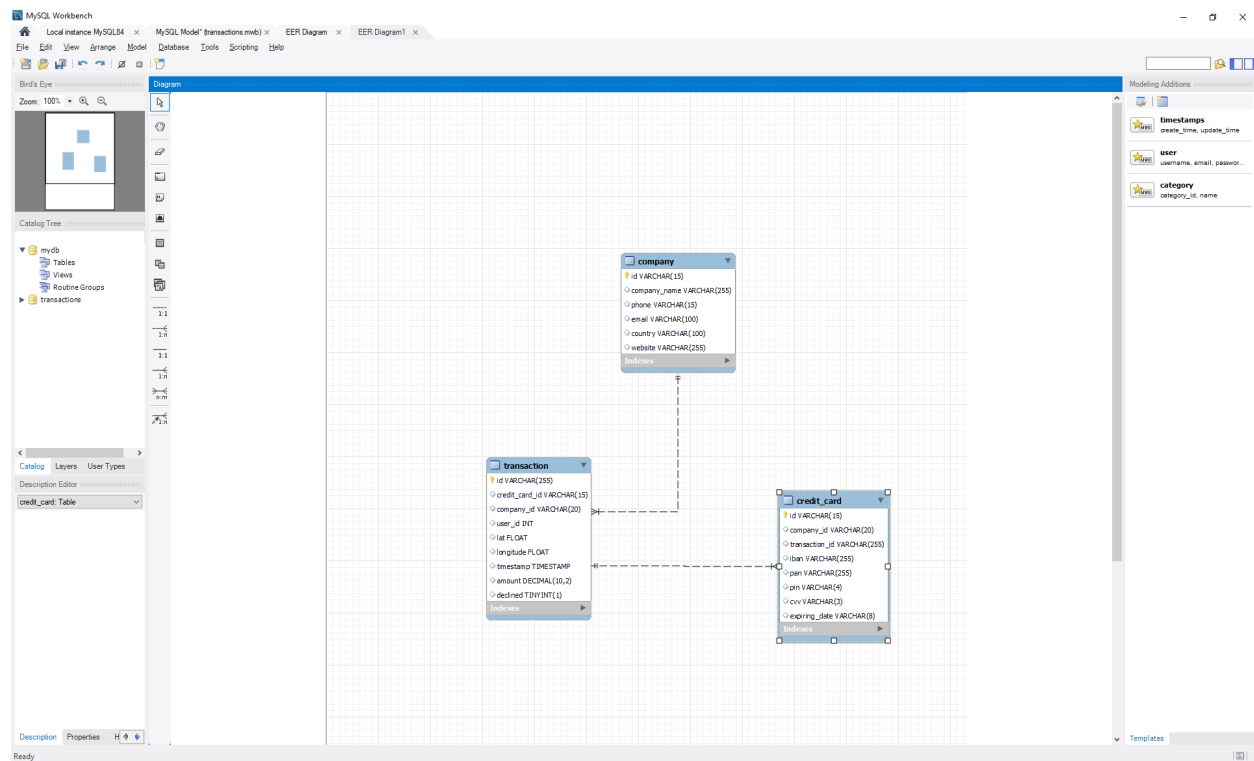
La nova taula credit card te una clau primaria (id) que està referenciada a la taula transaccions.

```
CREATE TABLE IF NOT EXISTS credit_card (  
  id          VARCHAR(15) PRIMARY KEY,  
  company_id  VARCHAR(20),  
  transaction_id VARCHAR(255) REFERENCES transaction(id),  
  iban        VARCHAR(255),  
  pan         VARCHAR(255),  
  pin         VARCHAR(4),  
  cvv         VARCHAR(3),  
  expiring_date VARCHAR(10)  
);
```

Cada transacció es pot associar amb una única crèdit card, també es poden associar les credits card de cada companyia, encara que en aquest cas una credit card podria pertanyer a mes d'una companyia.



L'estructura de la BBDD es la següent:



Exercici 2:

```
5 -- La nova taula ha de ser capaç d'identificar de manera única cada targeta i establir una relació adequada amb les altres dues taules ("transaction" i "company").
6 -- Després de crear la taula serà necessari que ingressis la informació del document denominat "dades_introduir_credit". Recorda mostrar el diagrama i realitzar una breu descripció d'aquest.
7 DROP TABLE IF EXISTS credit_card;
8 CREATE TABLE IF NOT EXISTS credit_card (
9     id VARCHAR(15) PRIMARY KEY,
10    company_id VARCHAR(20),
11    transaction_id VARCHAR(255),
12    iban VARCHAR(255),
13    pan VARCHAR(255),
14    pin VARCHAR(4),
15    cvv VARCHAR(3),
16    expiring_date VARCHAR(8),
17    FOREIGN KEY (transaction_id) REFERENCES transaction(id)
18 );
19
20 -- SELECT count(*) from credit_card;
21 -- Exercici 2
22 -- El departament de Recursos Humans ha identificat un error en el número de compte associat a la targeta de crèdit amb ID CCU-2938.
23 -- La informació que ha de mostrar-se per a aquest registre és: TR323456312213576817699999. Recorda mostrar que el canvi es va realitzar.
24
25 SELECT id, iban FROM credit_card WHERE id = 'CCU-2938'; -- 'TR361950312213576817638661'
26 UPDATE credit_card SET iban = 'TR323456312213576817699999' WHERE id = 'CCU-2938';
27 SELECT id, iban FROM credit_card WHERE id = 'CCU-2938'; -- 'TR323456312213576817699999'
```

| id | iban |
|----------|----------------------------|
| CCU-2938 | TR323456312213576817699999 |

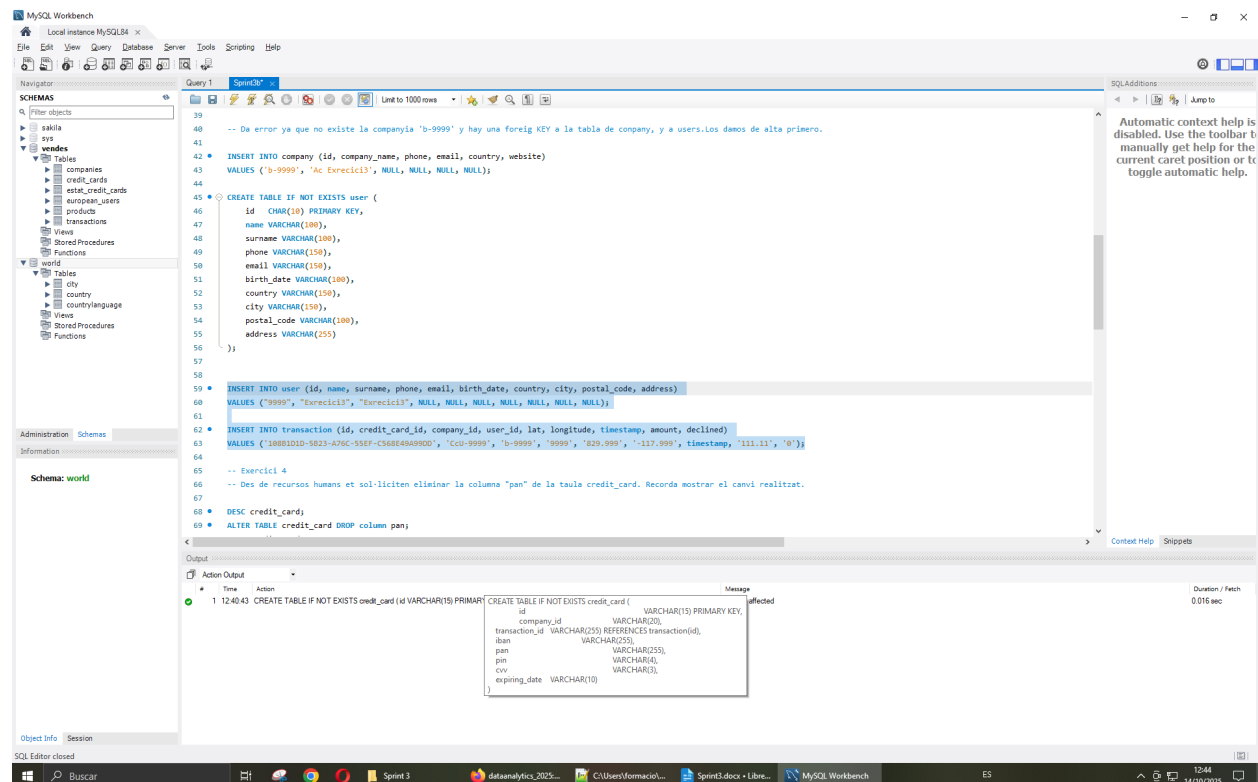
| Time | Action | Message | Duration / Fetch |
|-------|----------|--|---|
| 10:24 | 12:57:56 | SELECT iban FROM credit_card WHERE id = 'CCU-2938' LIMIT 0, 1000 | 1 row(s) returned 0.000 sec / 0.000 sec |
| 10:25 | 12:59:06 | UPDATE credit_card SET iban = 'TR323456312213576817699999' WHERE id = 'CCU-2938' | Error Code: 1054. Unknown column 'TR323456312213576817699999' in 'field list' |
| 10:26 | 12:59:17 | UPDATE credit_card SET iban = 'TR323456312213576817699999' WHERE id = 'CCU-2938' | 1 row(s) affected 0.000 sec |
| 10:27 | 12:59:26 | SELECT iban FROM credit_card WHERE id = 'CCU-2938' LIMIT 0, 1000 | 1 row(s) returned 0.000 sec / 0.000 sec |
| 10:28 | 13:00:32 | SELECT id, iban FROM credit_card WHERE id = 'CCU-2938' LIMIT 0, 1000 | 1 row(s) returned 0.000 sec / 0.000 sec |
| 10:29 | 13:00:46 | SELECT id, iban FROM credit_card WHERE id = 'CCU-2938' LIMIT 0, 1000 | 1 row(s) returned 0.015 sec / 0.000 sec |

Exercici 3:

```
INSERT INTO company (id, company_name, phone, email, country, website)
VALUES ('b-9999', 'Ac Exrecici3', NULL, NULL, NULL, NULL);
```

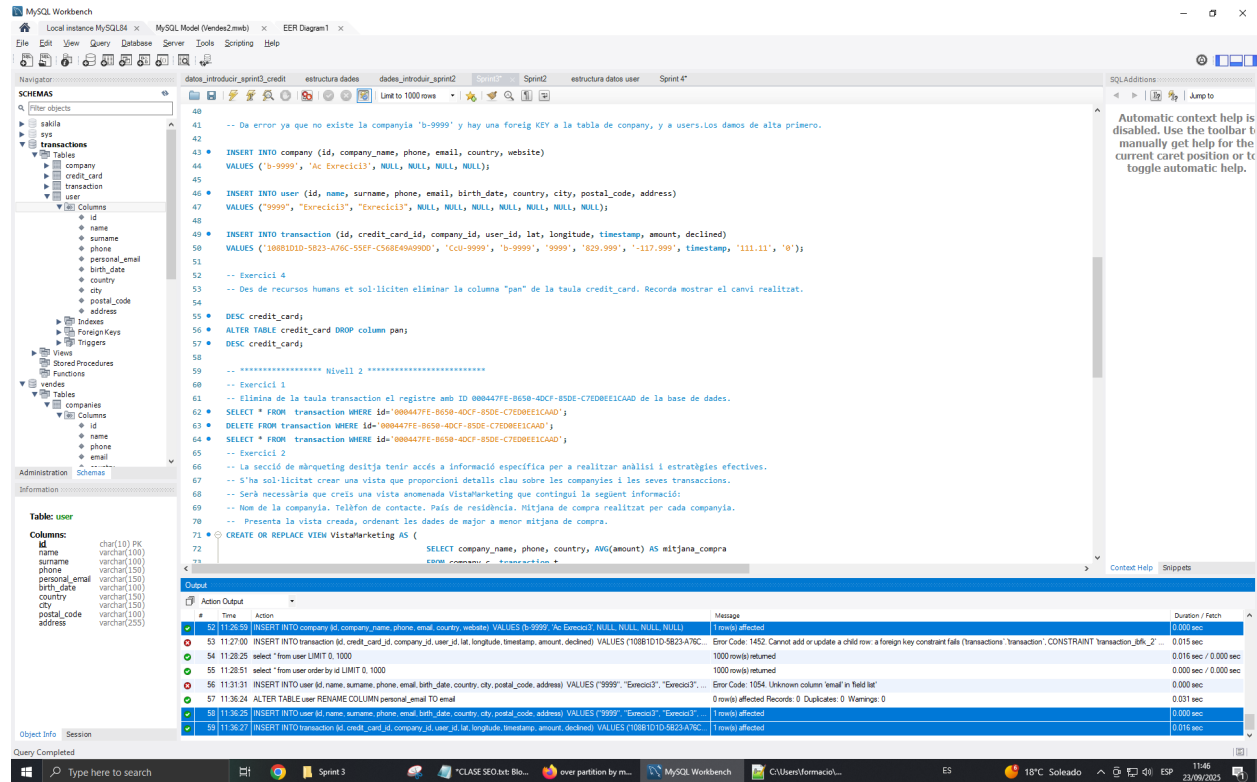
```
INSERT INTO credit_card ( id ,company_id, transaction_id, iban,pan,pin, cvv,expiring_date)
VALUES ('CcU-9999', 'b-9999', NULL, NULL,NULL,NULL,NULL,NULL);
```

```
CREATE TABLE IF NOT EXISTS user (
    id CHAR(10) PRIMARY KEY,
    name VARCHAR(100),
    surname VARCHAR(100),
    phone VARCHAR(150),
    email VARCHAR(150),
    birth_date VARCHAR(100),
    country VARCHAR(150),
    city VARCHAR(150),
    postal_code VARCHAR(100),
    address VARCHAR(255)
);
```

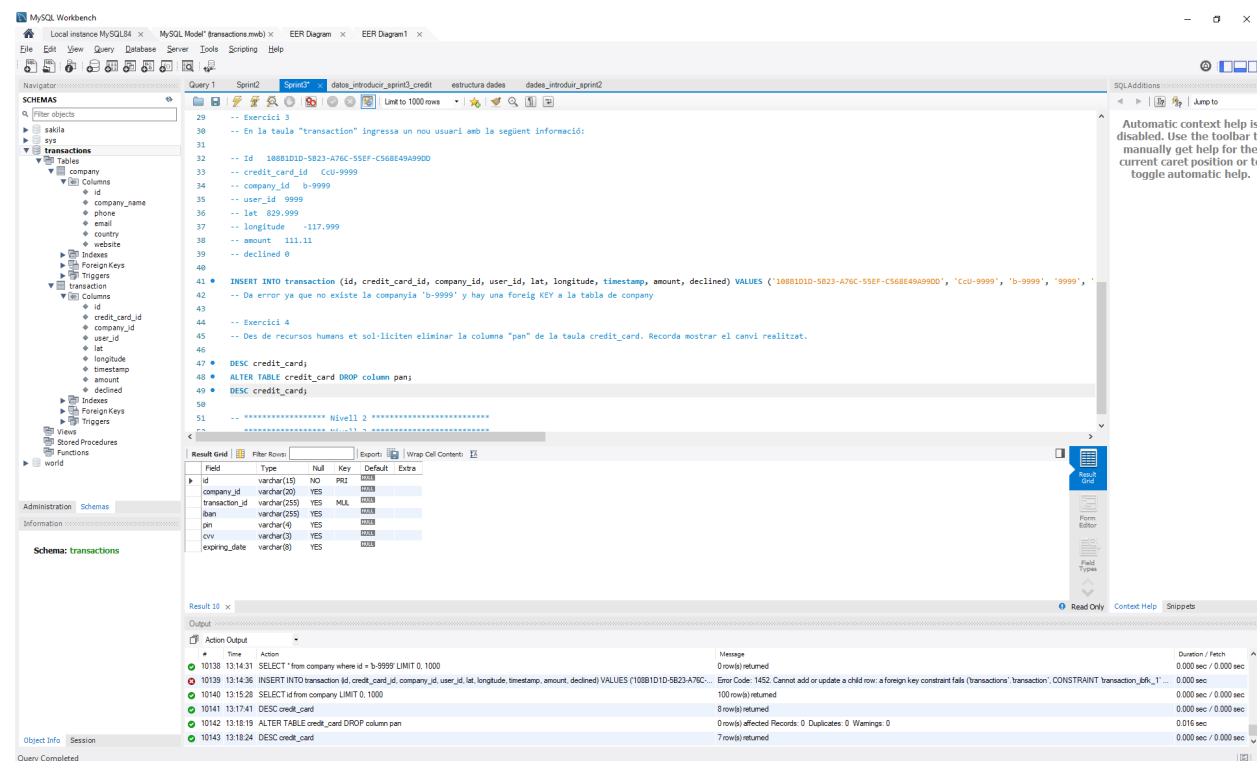


```
INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address)
VALUES ("9999", "Exrecici3", "Exrecici3", NULL, NULL, NULL, NULL, NULL, NULL, NULL);
```

INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, timestamp, amount, declined)
VALUES ('108B1D1D-5B23-A76C-55EF-C568E49A99DD', 'CcU-9999', 'b-9999', '9999', '829.999', '-117.999', timestamp, '111.11', '0');



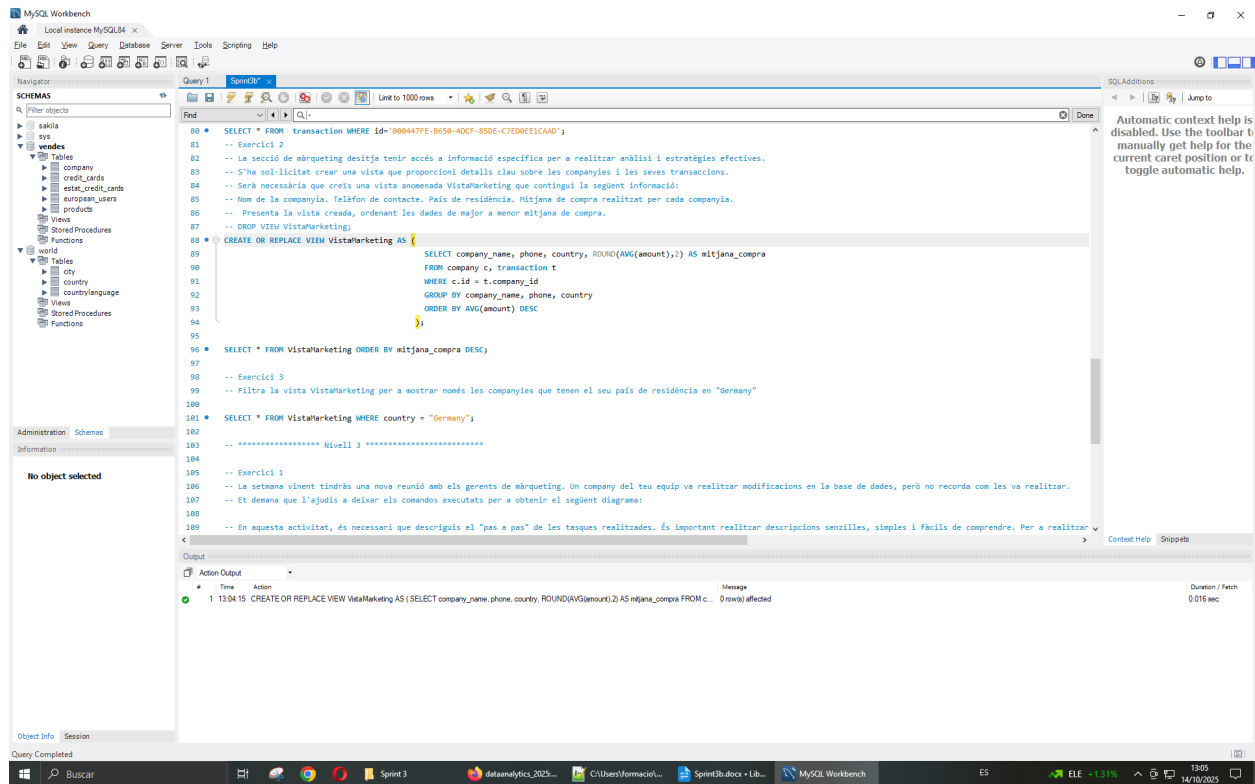
Exercici 4:



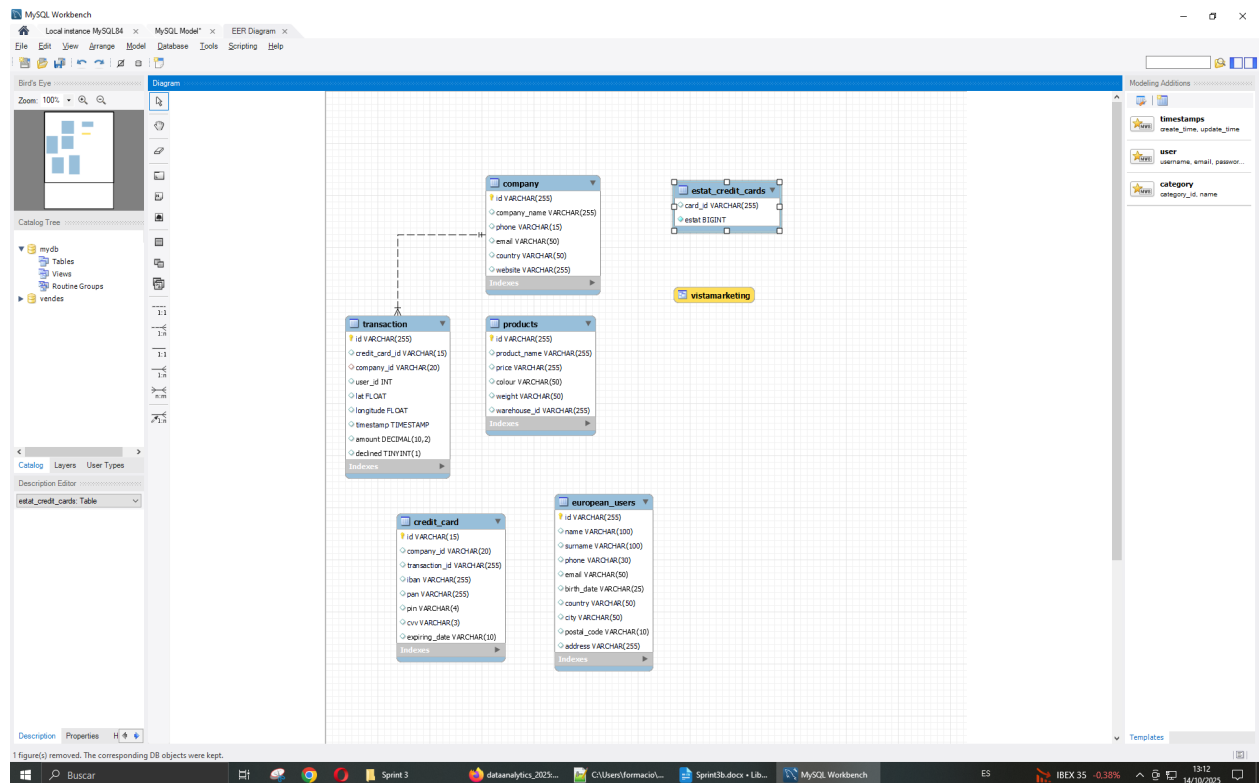
Exercici 1 Nivell 2:

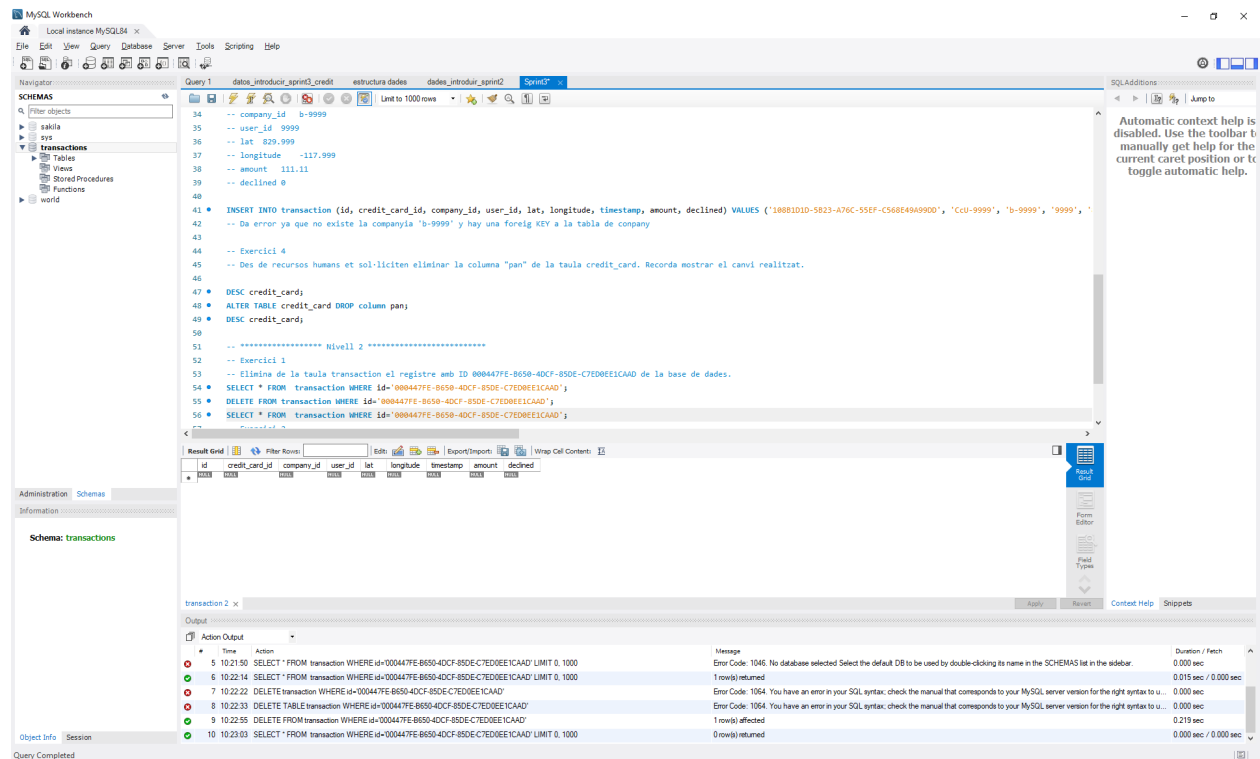
Exercici 2 Nivell 2:

Exercici 3 Nivell 2



Exercici 1 Nivell 3:





```

ALTER TABLE credit_card
ADD fecha_actual DATE DEFAULT (CURRENT_DATE),
MODIFY COLUMN id VARCHAR(20),
MODIFY COLUMN iban VARCHAR(50),
MODIFY COLUMN pin VARCHAR(4),
MODIFY COLUMN cvv INT,
MODIFY COLUMN expiring_date VARCHAR(20),
DROP COLUMN transaction_id;
;

```

```

DESC user;
ALTER TABLE user
RENAME COLUMN email TO personal_email;

```

```

DESC transaction;
ALTER TABLE transaction
MODIFY COLUMN user_id CHAR(10),
ADD FOREIGN KEY (user_id) REFERENCES user(id) ,
ADD FOREIGN KEY (credit_card_id) REFERENCES credit_card(id) ;
;

```

```

ALTER TABLE company
DROP COLUMN website;

```

```

ALTER TABLE transaction
ADD FOREIGN KEY (user_id) REFERENCES user(id) ;

```

```

ALTER TABLE user RENAME data_user;

```

A la taula, credit_card se li ha afegir el camp fecha_actual, he posat un default pq es el mes normal per aquest tipus de camp.

A la taula user s'ha renombrat la columna correu electrònic per personal_email.

A la taula transaction se li ha afegit la clau foranea de user, per això s'ha hagut de modificar el tipus del camp user_id a char(10) perquè coincideixi amb el tipus que te el id a la taula user.

The screenshot shows the MySQL Workbench interface with a SQL script editor and an output window. The script contains several SQL statements for database management tasks.

SQL Script:

```
-- Exercici 3
-- Filtra la vista VistaMarketing per a mostrar només les companyes que tenen el seu país de residència en "Germany"
SELECT * FROM VistaMarketing WHERE country = "Germany";

-- Exercici 1
-- La setmana vinent tindrà una nova reunió amb els parents de màrqueting. Un company del teu equip va realitzar modificacions en la base de dades, però no recorda com les va realitzar.
-- Et demana que l'ajudis a deixar els comandos executats per a obtenir el següent diagrama:
-- En aquesta activitat, és necessari que descriguis el "pas a pas" de les tasques realitzades. És important realitzar descripcions senilles, simples i fàcils de comprendre. Per a realitzar
-- Recorda continuar treballant sobre el model i les taules amb les quals ja has treballat fins ara.

ALTER TABLE credit_card
ADD fecha_actual DATE DEFAULT (CURRENT_DATE);

DESC user;

ALTER TABLE user
RENAME COLUMN email TO personal_email;

DESC transaction;

ALTER TABLE transaction
MODIFY COLUMN user_id CHAR(10);

ALTER TABLE transaction
ADD FOREIGN KEY (user_id) REFERENCES user(id);

-- Exercici 2
```

Table: credit_card Columns:

| Column | Type |
|----------------|----------------|
| id | varchar(15) PK |
| company_id | varchar(20) |
| transaction_id | varchar(255) |
| iban | varchar(255) |
| pin | varchar(4) |
| civ | varchar(3) |
| expiring_date | varchar(8) |
| fecha_actual | date |

Action Output:

| # | Time | Action | Message | Duration / Fetch |
|------|----------|---|--|-----------------------|
| 5029 | 11:16:21 | ALTER TABLE user RENAME COLUMN email TO personal_email | 0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0 | 0.015 sec |
| 5030 | 11:16:24 | DESC user | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5031 | 11:16:00 | DESC user | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5032 | 11:16:15 | DESC transaction | 9 row(s) returned | 0.000 sec / 0.000 sec |
| 5033 | 11:16:24 | ALTER TABLE transaction ADD FOREIGN KEY (user_id) REFERENCES user(id) | Err: Code: 3730. Referencing column user_id and referenced column id in foreign key constraint transaction_ibfk_2 are incompatible | 0.000 sec |
| 5034 | 11:16:39 | DESC transaction | 9 row(s) returned | 0.000 sec / 0.000 sec |
| 5035 | 11:16:44 | DESC user | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5036 | 11:19:51 | DESC transaction | 9 row(s) returned | 0.000 sec / 0.000 sec |
| 5037 | 11:20:59 | DESC transaction | 9 row(s) returned | 0.015 sec / 0.000 sec |
| 5038 | 11:20:04 | DESC user | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5039 | 11:20:26 | ALTER TABLE transaction MODIFY COLUMN user_id CHAR(10) | 99999 row(s) affected Records: 99999 Duplicates: 0 Warnings: 0 | 1.157 sec |
| 5040 | 11:20:28 | ALTER TABLE transaction ADD FOREIGN KEY (user_id) REFERENCES user(id) | 99999 row(s) affected Records: 99999 Duplicates: 0 Warnings: 0 | 1.485 sec |

Exercici 2 Nivell 3:

MySQL Workbench

Local instance MySQL84 x MySQL Model x

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

- sakila
- sys
- vendas**
 - Tables
 - company
 - credit_card
 - credit_cards
 - data_user
 - estat_credit_cards
 - european_users
 - products
 - transaction
 - Columns
 - id
 - credit_card_id
 - company_id
 - user_id
 - lat
 - longitude
 - timestamp
 - amount
 - declined
 - Indexes
 - ForeignKeys
 - Triggers
 - user
 - Views
 - ViewMarketing
 - Stored Procedures

Administration Schemas

Information

Schema: vendas

Query 1 SpinEdit

Find

Limit to 1000 rows

SQL Additions

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

```
123 ALTER TABLE user
124 RENAME COLUMN email TO personal_email;
125
126 DESC transactions;
127 ALTER TABLE transaction
128 MODIFY COLUMN user_id CHAR(10),
129 ADD FOREIGN KEY (user_id) REFERENCES user(id) ,
130 ADD FOREIGN KEY (credit_card_id) REFERENCES credit_card(id) ;
131
132
133 ALTER TABLE company
134 DROP COLUMN website;
135
136 ALTER TABLE transaction
137 ADD FOREIGN KEY (user_id) REFERENCES user(id) ;
138
139 ALTER TABLE user RENAME data_user;
140
141 -- Exercici 2
142 -- L'empresa també us demana crear una vista anomenada "InformeTecnico" que contingui la següent informació:
143
144 CREATE OR REPLACE VIEW InformeTecnico AS(
145     SELECT t.id as tx_id, name, surname, iban, company_name, amount, lat, longitude
146     FROM transaction t
147     INNER JOIN user u ON u.id = user_id
148     INNER JOIN credit_card cc ON cc.id = credit_card_id
149     INNER JOIN company c ON c.id = t.company_id
150 );
151 SELECT * FROM InformeTecnico ORDER BY id DESC;
152
```

Output

Action Output

| Time | Action | Message | Duration / Fetch |
|------------|--|-----------------|------------------|
| 1 13:57:34 | CREATE OR REPLACE VIEW InformeTecnico AS(SELECT t.id as tx_id, name, surname, iban, company_name, amount, lat, longitude | 0 rows affected | 0.016 sec |

Query Completed

Object Info Session

Windows Taskbar: Buscar, MySQL Workbench, image (132/1).png, ES, 13:57 14/10/2025