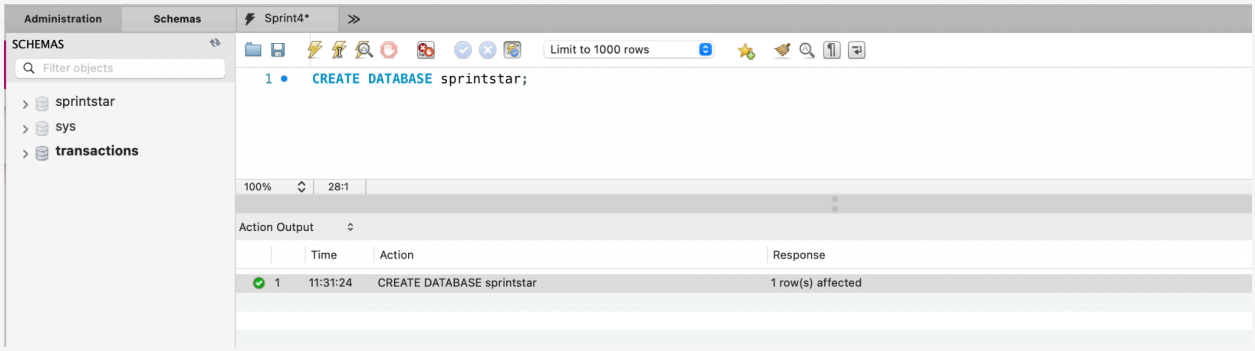
Task S4.01. Database Creation

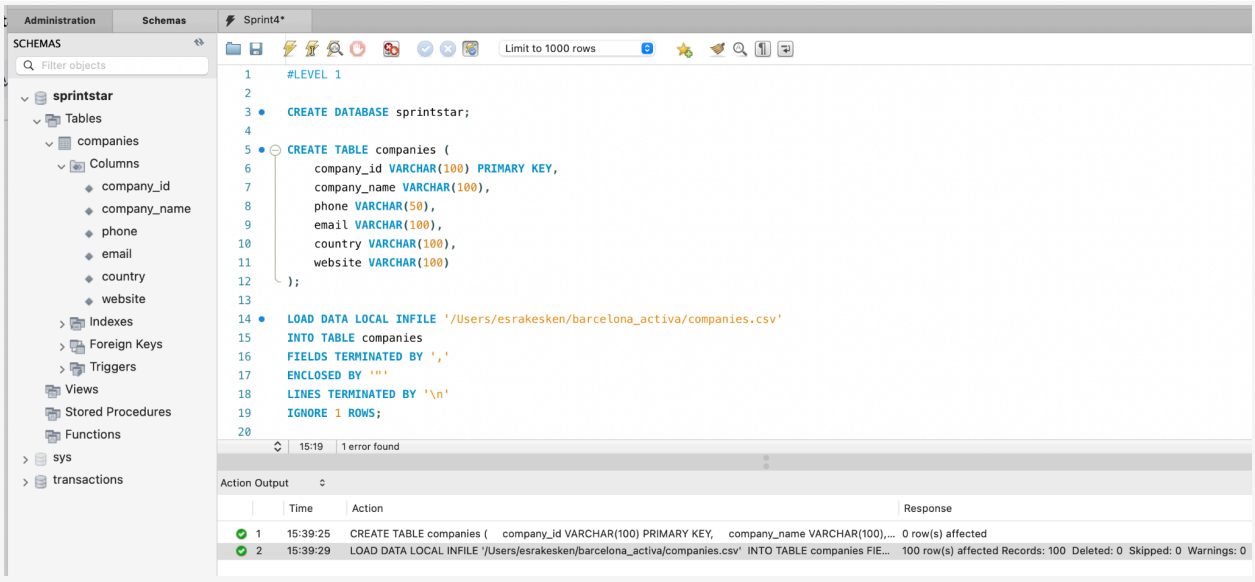
LEVEL 1

Download CSV files, study them, and design a database with a star scheme containing at least 4 tables from which you can make the following queries:

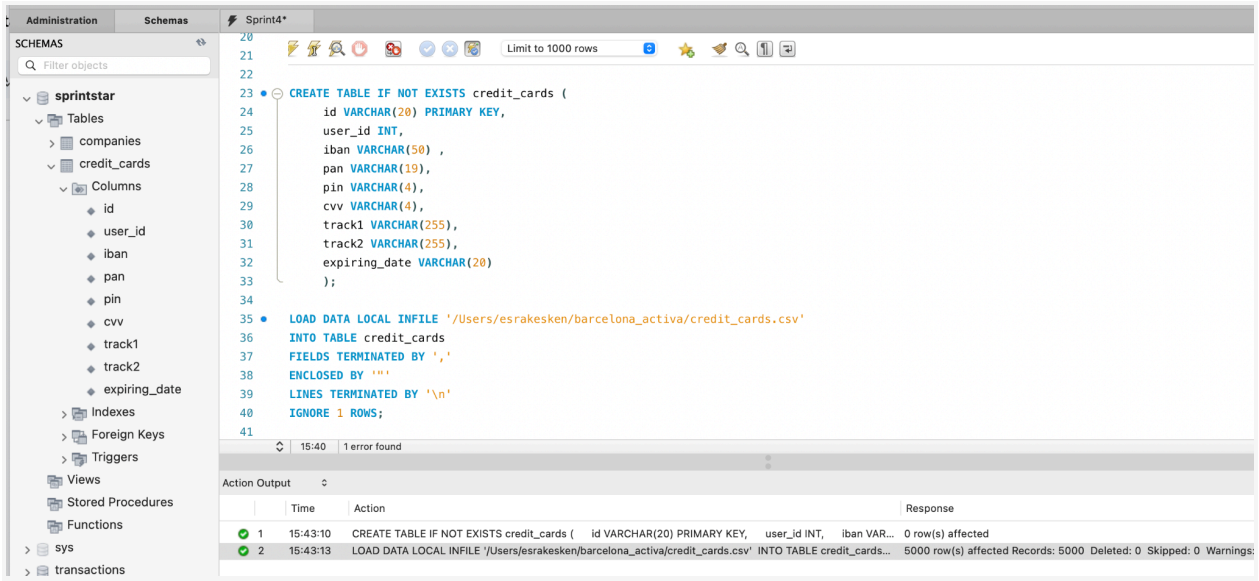
- Created the database sprintstar:



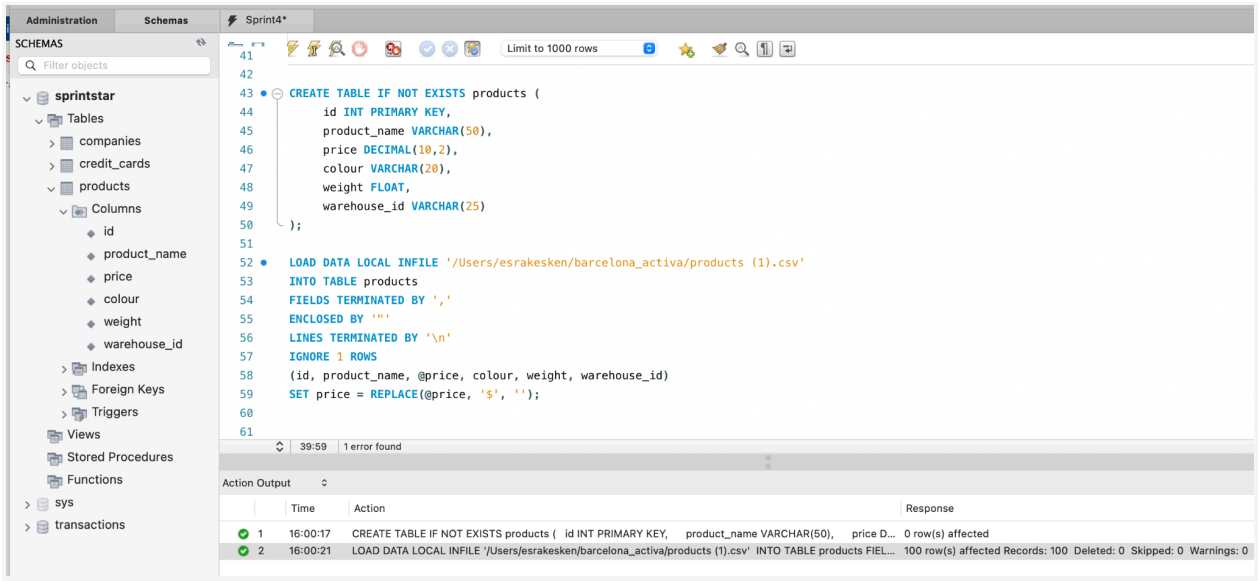
-Created the table companies:



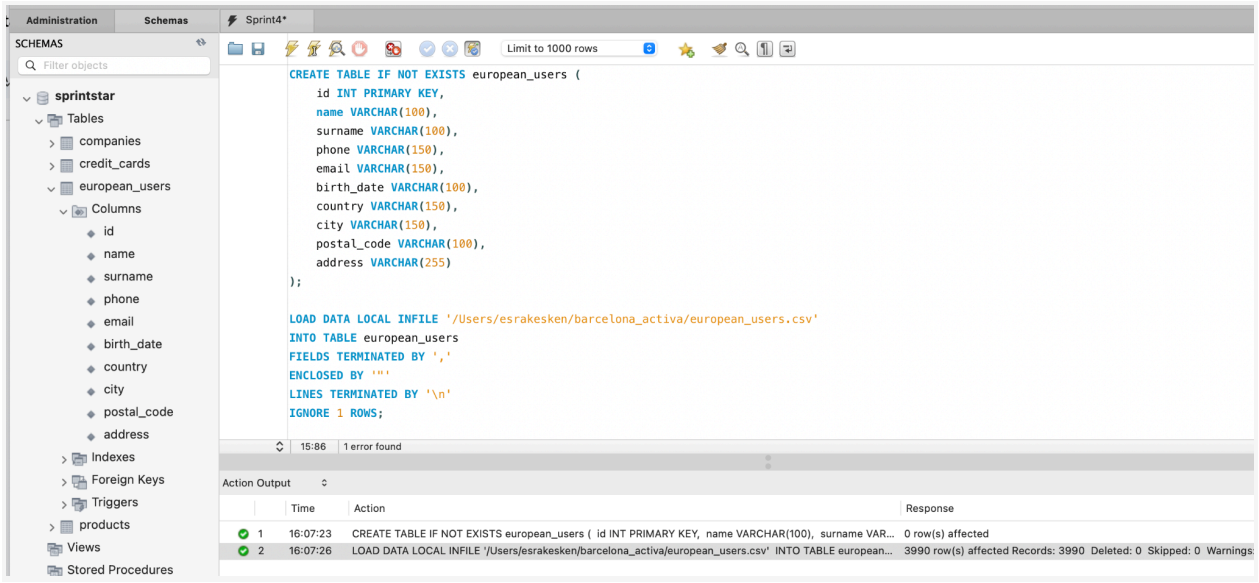
-Created the table credit_cards:

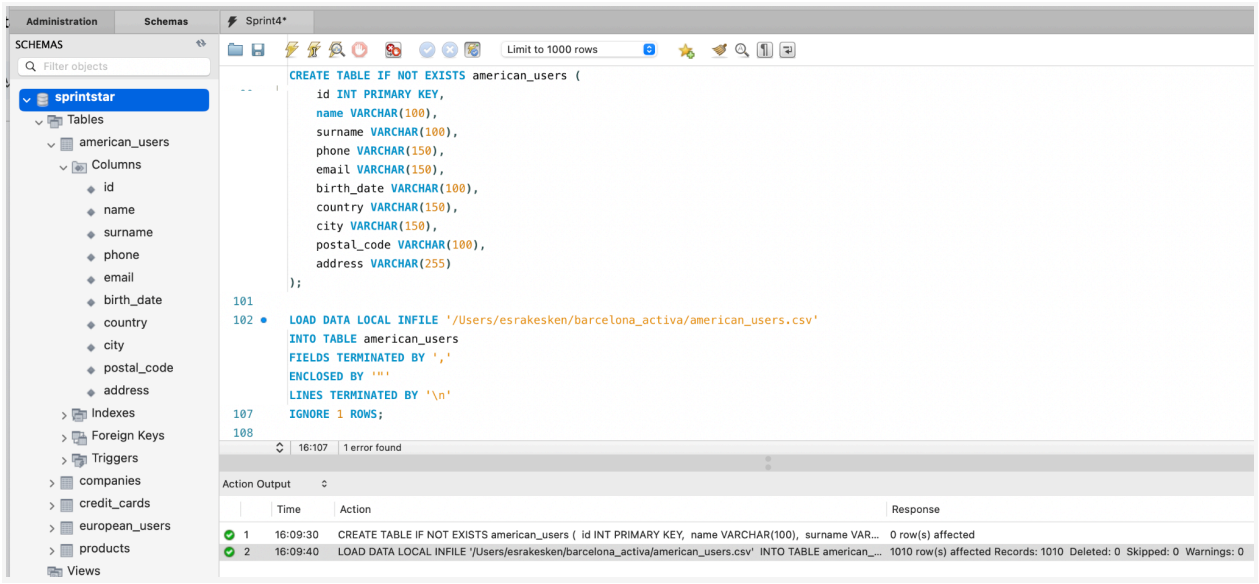


-Created the table products:

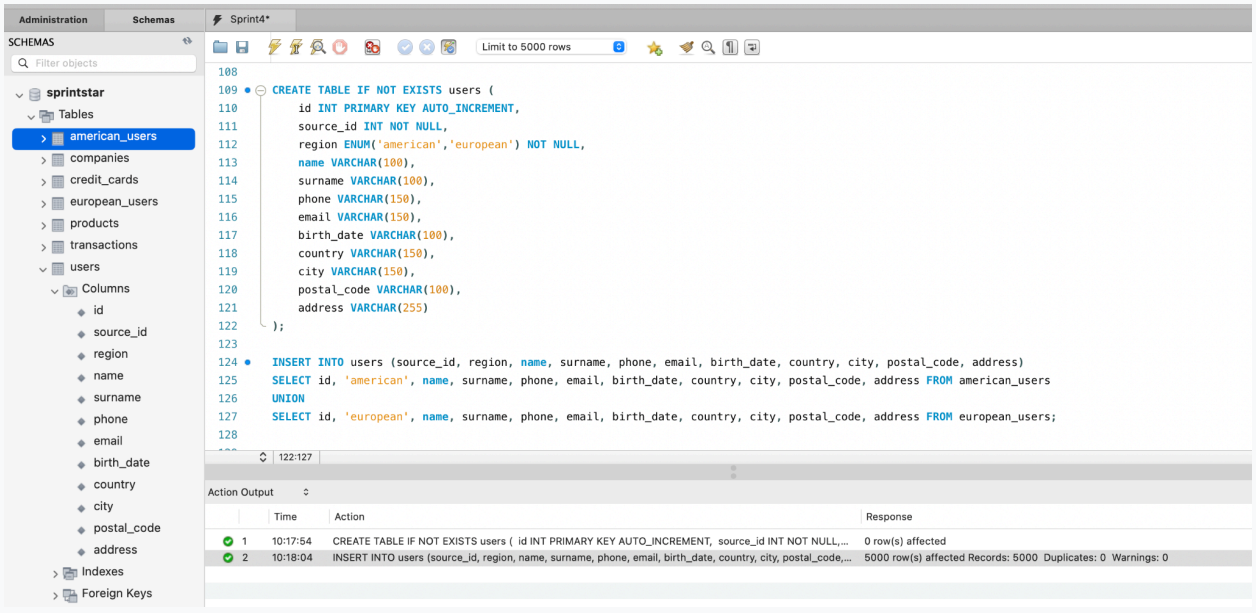


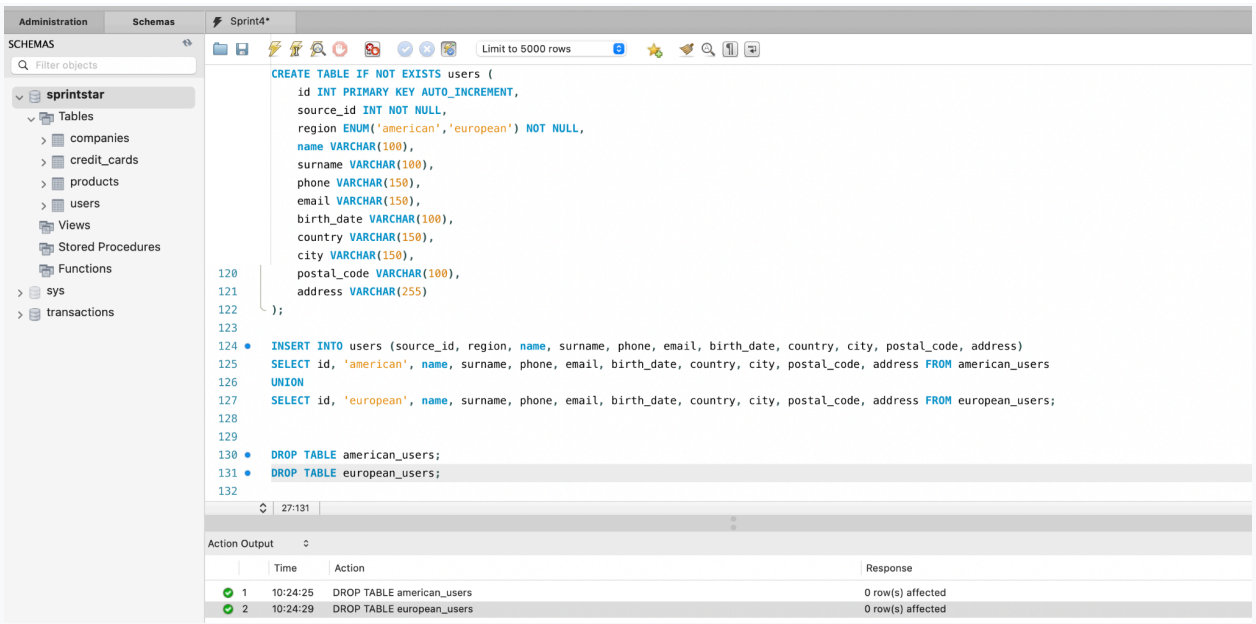
-Created the tables american_users and european_users:



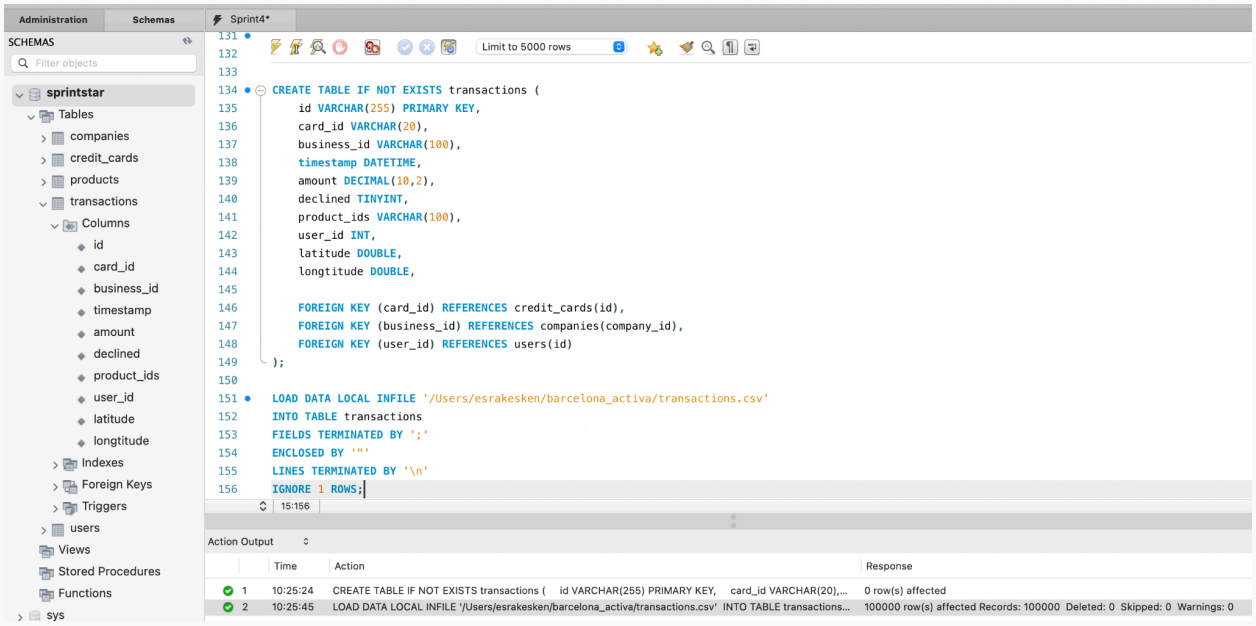


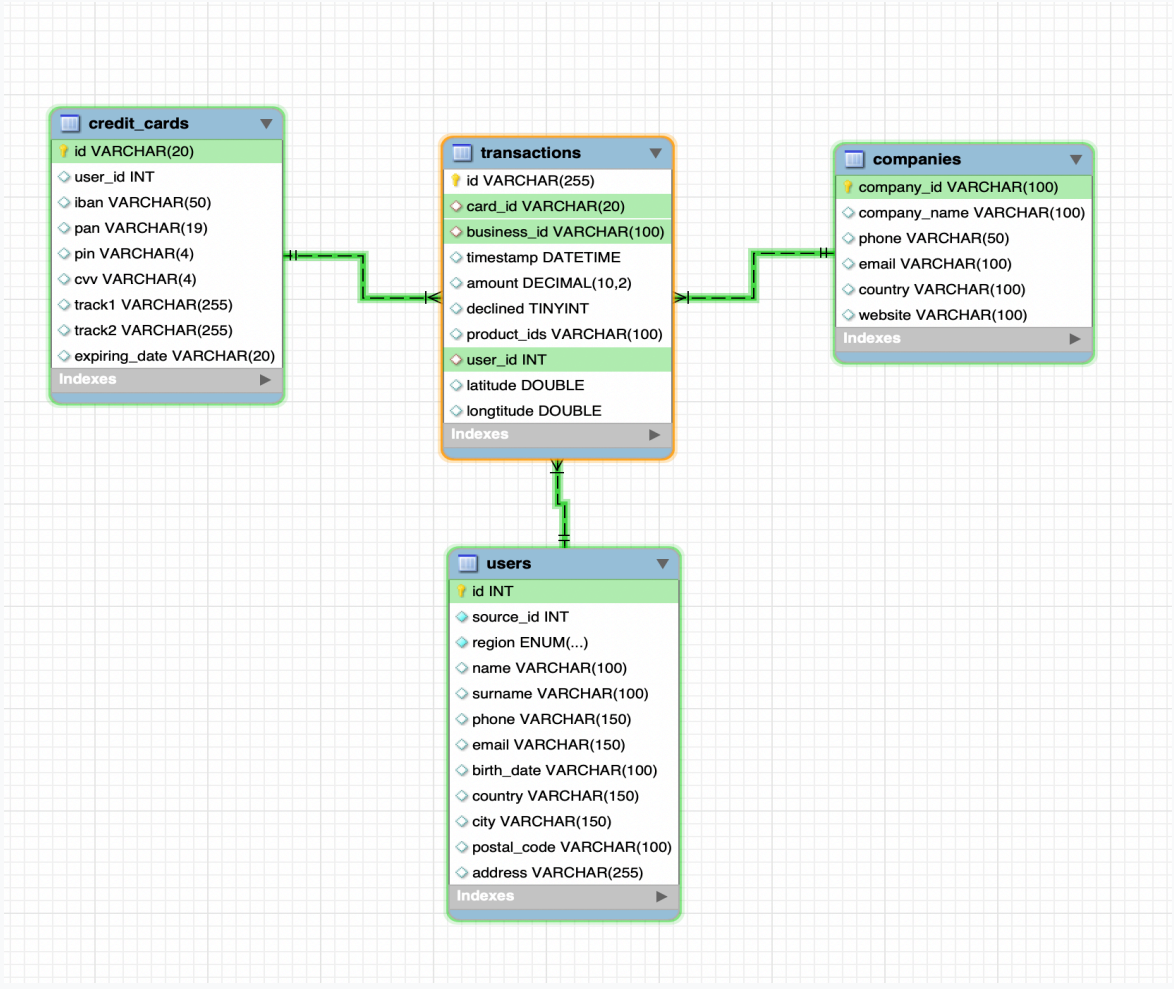
Now, to combine all users into one table, we need to create a new users table and insert all data from two tables and then delete the two tables:



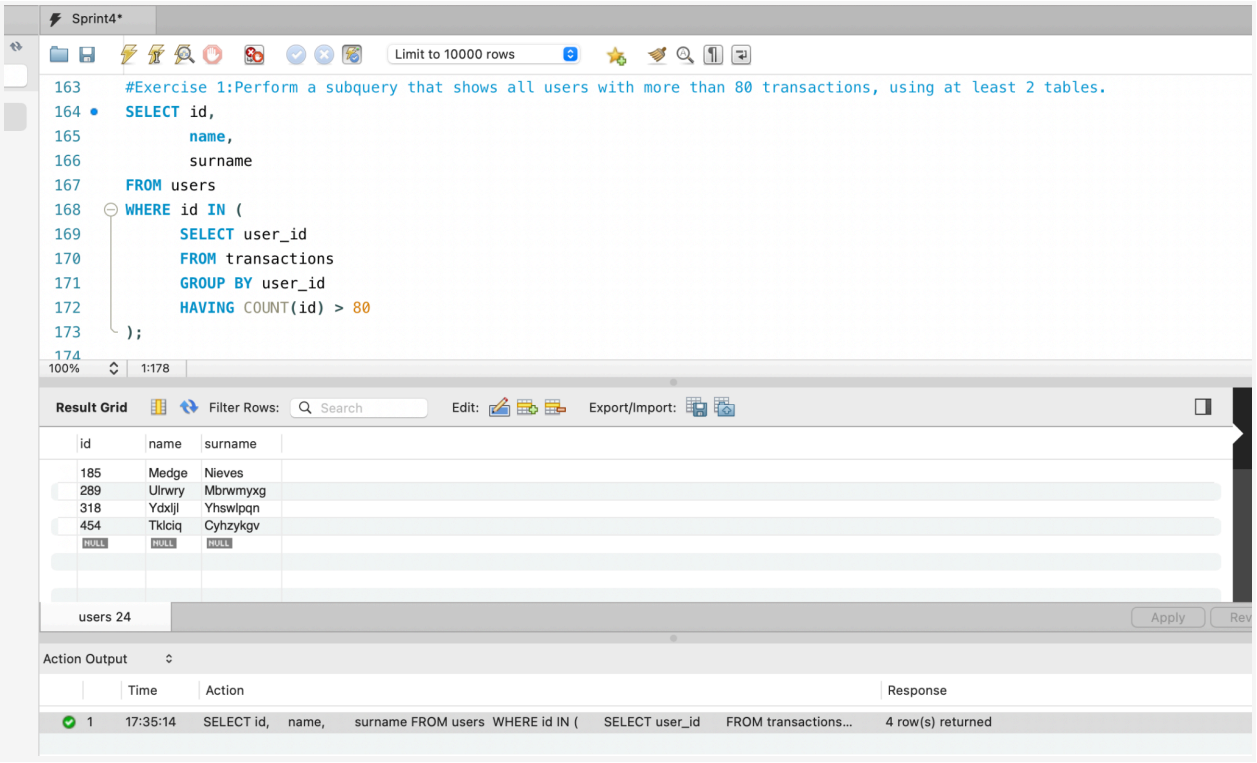


-I created the **transactions** table and set up its relationships with the relevant tables in the database:

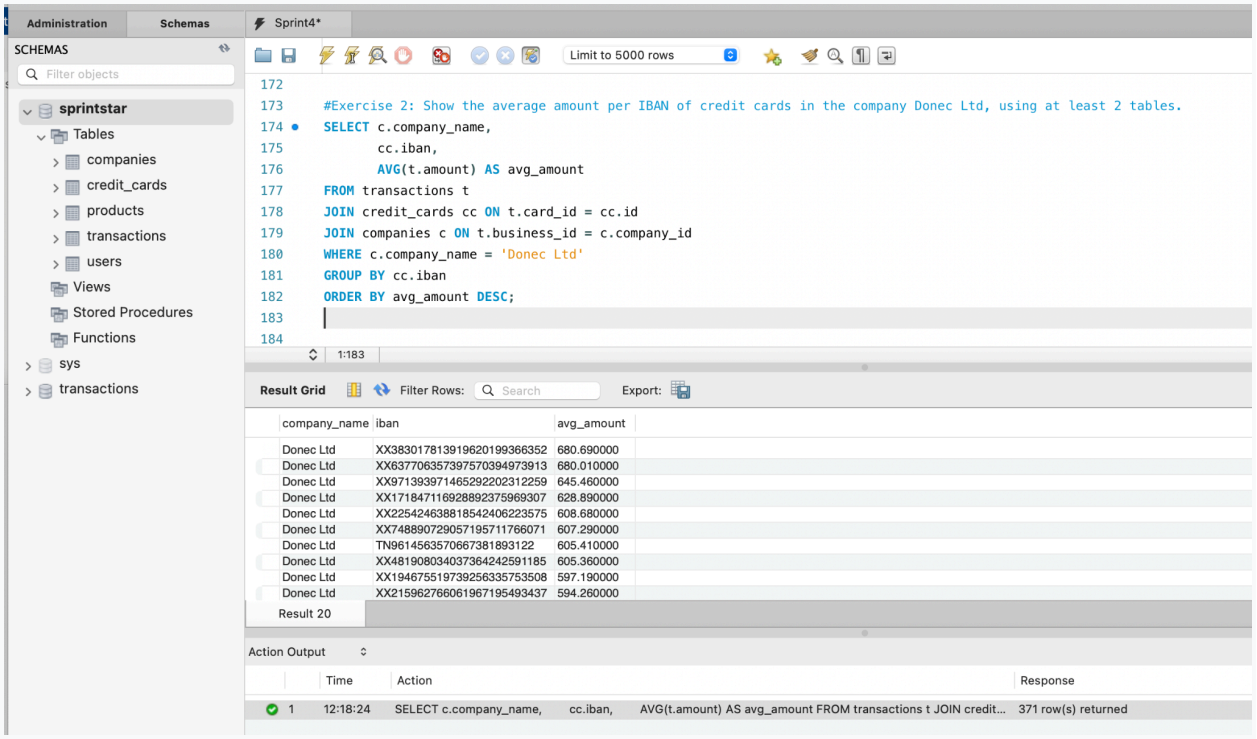




Exercise 1: Perform a subquery 🙂 that shows all users with more than 80 transactions, using at least 2 tables.

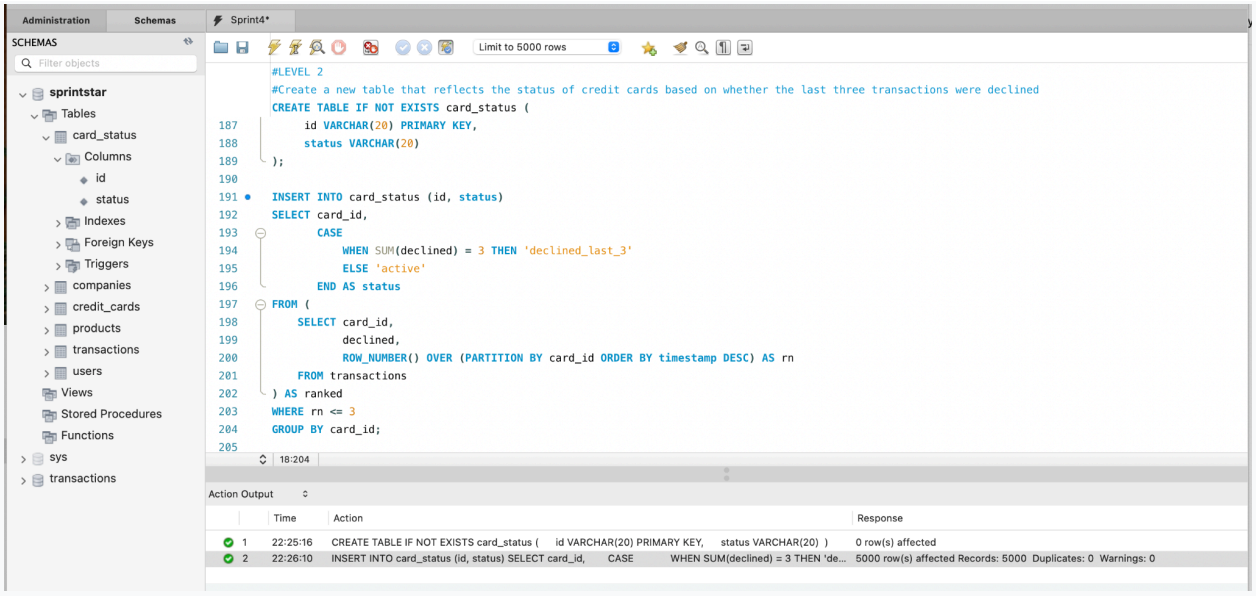


Exercise 2: Show the average amount per IBAN of credit cards in the company Donec Ltd, using at least 2 tables.

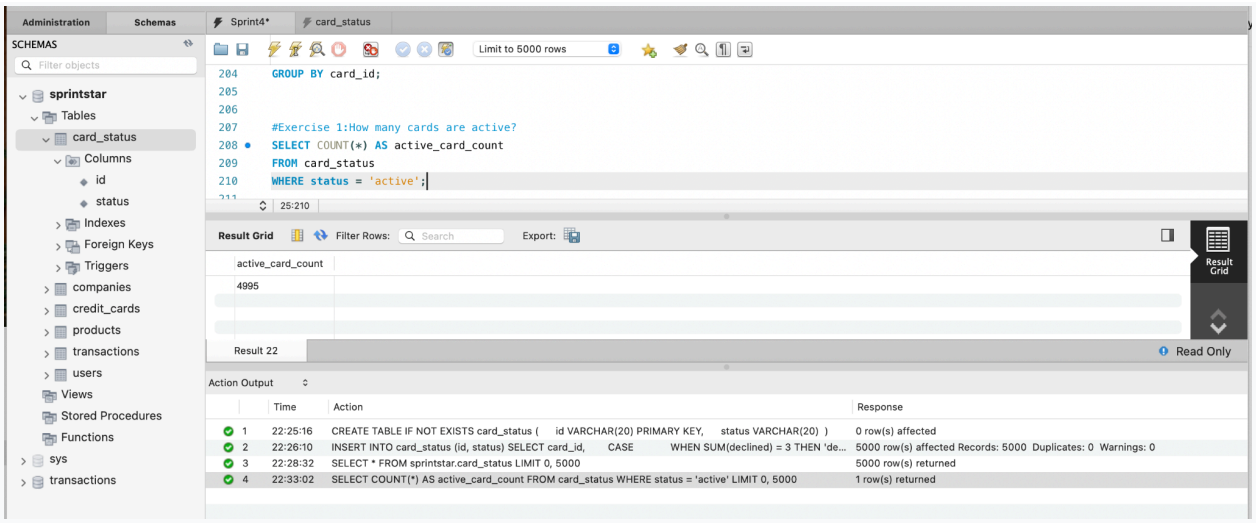


LEVEL 2

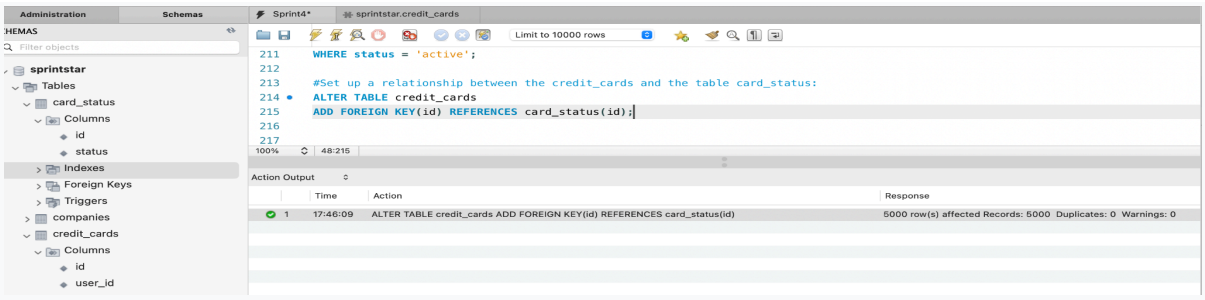
Create a new table that reflects the status of credit cards based on whether the last three transactions were declined, and generate the following query:



Exercise 1: How many cards are active?



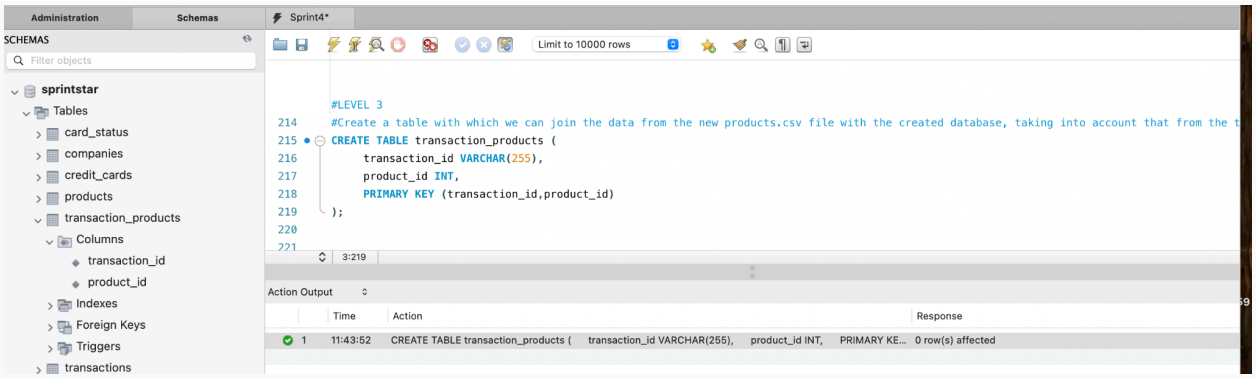
-Set up a relationship between the credit_cards and the table card_status:

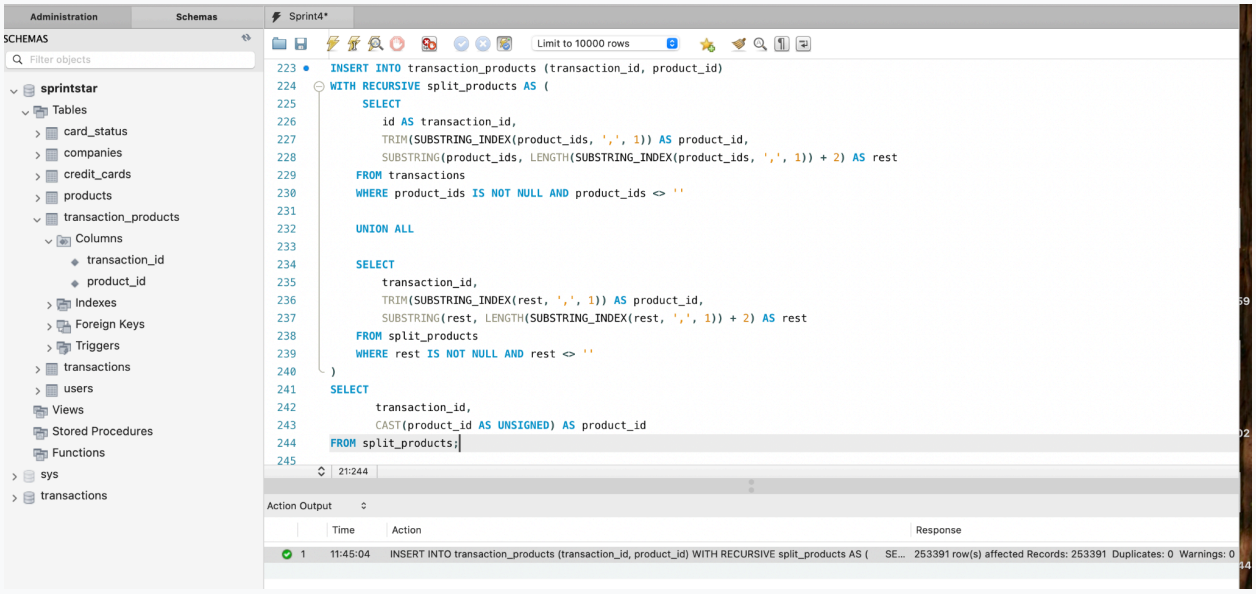


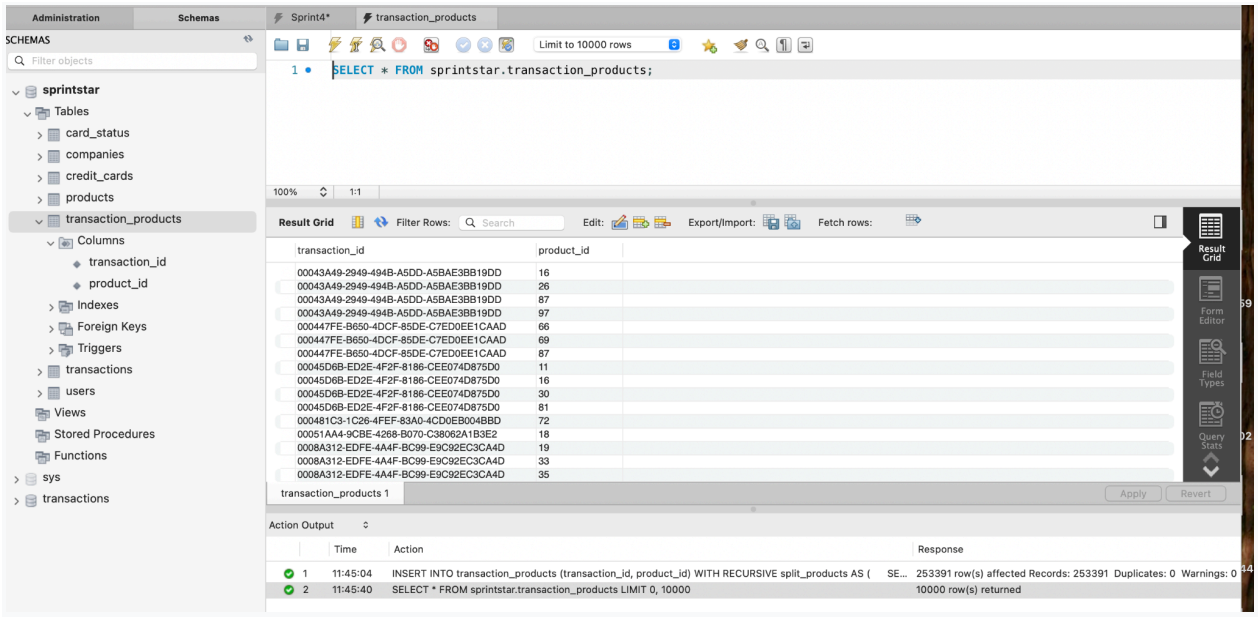
LEVEL 3

Create a table with which we can join the data from the new products.csv file with the created database, taking into account that from the transaction, you have product_ids. Generate the following query:

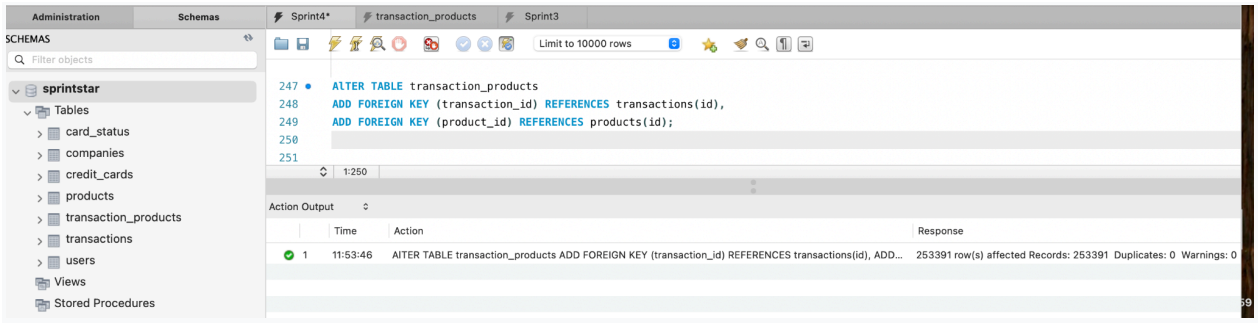
We need to create a bridge table to join the data from the **products** table and establish relationships between the relevant tables. To achieve this, we also need to split the values in the **product_ids** column, as it contains multiple entries.



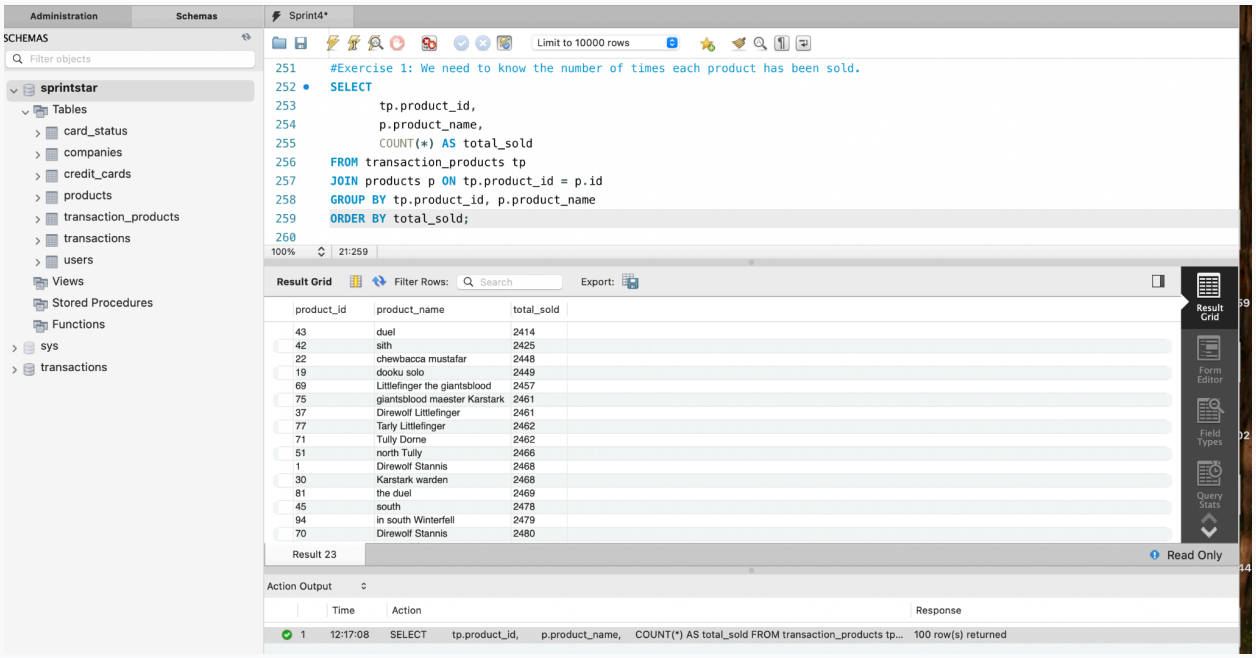




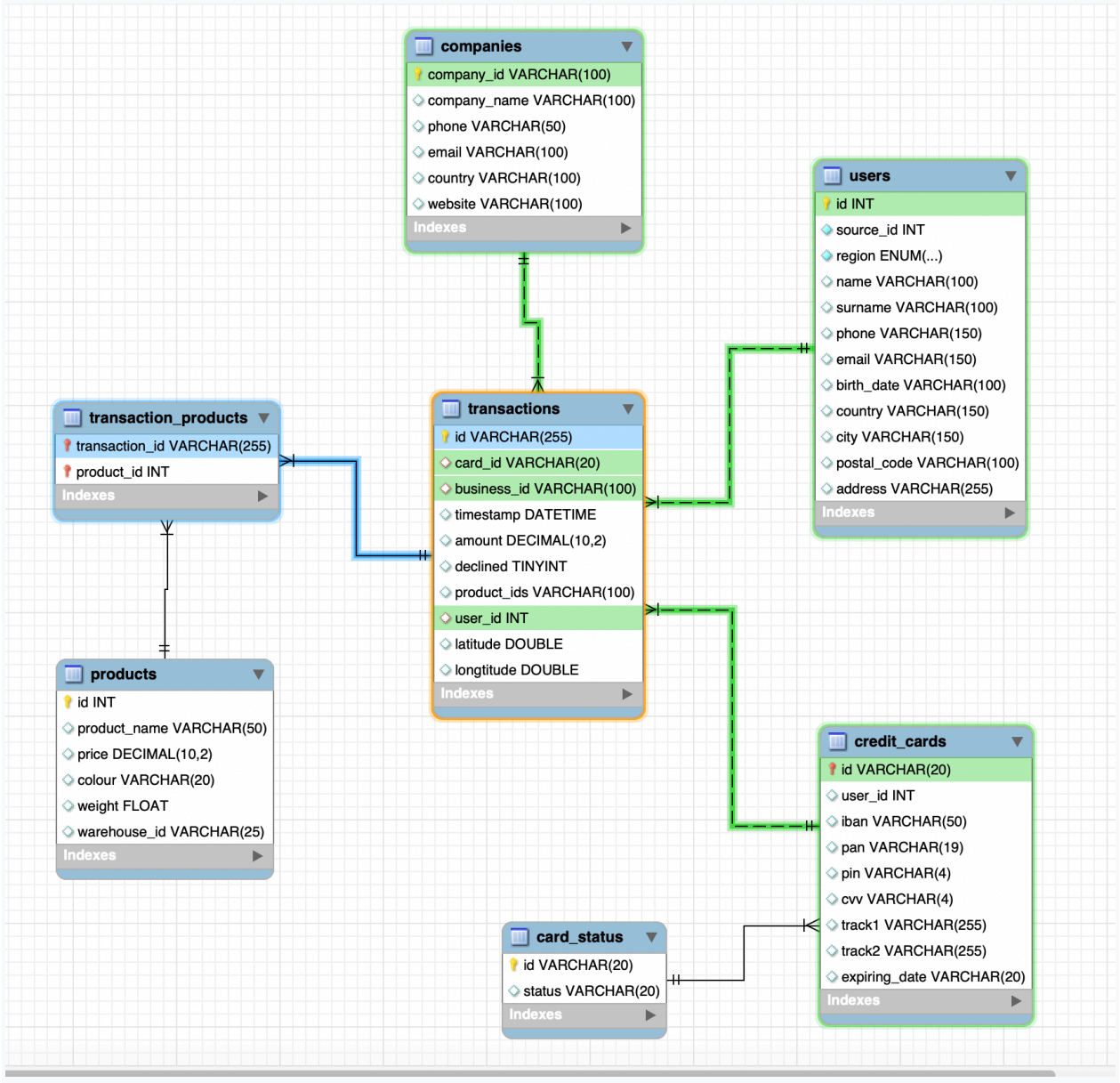
-To set up a relationship between the table transaction_products and the relevant tables transactions and products:



Exercise 1: We need to know the number of times each product has been sold.



And the diagram between the tables:


companies
company_id VARCHAR(100)
company_name VARCHAR(100)
phone VARCHAR(50)
email VARCHAR(100)
country VARCHAR(100)
website VARCHAR(100)
Indexes
users
id INT
source_id INT
region ENUM(...)
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)
Indexes
transaction_products
transaction_id VARCHAR(255)
product_id INT
Indexes
transactions
id VARCHAR(255)
card_id VARCHAR(20)
business_id VARCHAR(100)
timestamp DATETIME
amount DECIMAL(10,2)
declined TINYINT
product_ids VARCHAR(100)
user_id INT
latitude DOUBLE
longtitude DOUBLE
Indexes
products
id INT
product_name VARCHAR(50)
price DECIMAL(10,2)
colour VARCHAR(20)
weight FLOAT
warehouse_id VARCHAR(25)
Indexes
credit_cards
id VARCHAR(20)
user_id INT
iban VARCHAR(50)
pan VARCHAR(19)
pin VARCHAR(4)
cvv VARCHAR(4)
track1 VARCHAR(255)
track2 VARCHAR(255)
expiring_date VARCHAR(20)
Indexes
card_status
id VARCHAR(20)
status VARCHAR(20)
Indexes