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Sprint 4

<u>Nivell 1</u>

Creo el database operations, las tablas user_all, transactions, company, credit_card y inserto los datos de los archivos csv.

- Ex 1. Realitza una subconsulta que mostri tots els usuaris amb més de 30 transaccions utilitzant almenys 2 taules.

```
113 •   SELECT users_all.id, name, surname, count(transactions.id) as totaltransactions
114     FROM users_all
115     JOIN transactions
116     ON transactions.user_id = users_all.id
117     GROUP BY users_all.id
118     HAVING totaltransactions > 30;
```

id	name	surname	totaltransactions
92	Lynn	Riddle	39
267	Ocean	Nelson	52
272	Hedwig	Gilbert	76
275	Kenyon	Hartman	48

- Ex 2. Mostra la mitjana de la suma de transaccions per IBAN de les targetes de crèdit en la companyia Donec Ltd. utilitzant almenys 2 taules.

```
122     -- EX 2.
123 •   SELECT ROUND(AVG(transactions.amount), 2) AS total_transactions, iban
124     FROM credit_cards
125     JOIN transactions ON transactions.card_id = credit_cards.id
126     JOIN company ON company.company_id = transactions.business_id
127     WHERE company_name = "Donec Ltd"
128     GROUP BY iban;
129
130
```

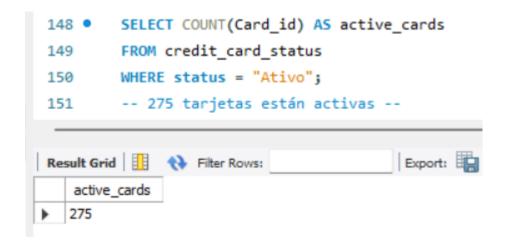| total_transactions	iban
204.00	PT87806228135092429456346

Nivell 2

Crea una nova taula que reflecteixi l'estat de les targetes de crèdit basat en si les últimes tres transaccions van ser declinades i genera la següent consulta:

Creo la tabla credit_card_status usando la función case.

```
30        -- Nivell 2 --
31        -- Ex 1.
32
33 •   CREATE TABLE `credit_card_status` AS
34     SELECT card_id,
35         CASE
36             WHEN SUM(declined) >= 3 THEN 'Inativo'
37             ELSE 'Ativo'
38         END AS status
39     FROM (
40         SELECT card_id, declined,
41             ROW_NUMBER() OVER (PARTITION BY card_id ORDER BY timestamp DESC) AS rn
42         FROM transactions
43     ) AS last_transactions
44     WHERE rn <= 3
45     GROUP BY card_id;
```

Ex 1. Quantes targetes estan actives?

```
148 •   SELECT COUNT(Card_id) AS active_cards
149     FROM credit_card_status
150     WHERE status = "Ativo";
151     -- 275 tarjetas están activas --
```

Result Grid	Filter Rows:	Export:

active_cards
275

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:

Ex 1. Necessitem conèixer el nombre de vegades que s'ha venut cada producte.

Creo una tabla intermedia entre products y transactions llamada products_transactions para solventar la relación many to many entre las tablas.

```
56 •  CREATE TABLE products (
57            id INT,
58            product_name VARCHAR(100),
59            price VARCHAR(100),
60            colour VARCHAR(100),
61            weight VARCHAR(100),
62            warehouse_id VARCHAR(100),
63            PRIMARY KEY (id)
64      );
65
66 •  CREATE TABLE products_transactions (
67        transaction_id VARCHAR(100) NOT NULL,
68        product_id INT NOT NULL,
69        PRIMARY KEY (product_id, transaction_id),
70        FOREIGN KEY (transaction_id) REFERENCES transactions(id),
71        FOREIGN KEY (product_id) REFERENCES products(id)
72      );
73
```

Inserto los datos de products_transactions

```
75 •  INSERT INTO products_transactions
76    SELECT transactions.id, SUBSTRING_INDEX(SUBSTRING_INDEX(product_ids, ',', n.digit+1), ',', -1) AS product_id
77    FROM transactions
78    JOIN
79    (SELECT 0 as digit UNION ALL SELECT 1 UNION ALL SELECT 2 UNION ALL SELECT 3 UNION ALL SELECT 4) n
80    ON LENGTH(REPLACE(product_ids, ',' , '')) <= LENGTH(product_ids)-n.digit;
81
```

A continuación, hago una query para calcular o numero de ventas de cara producto

```sql
83 •   SELECT COUNT(transaction_id) as total_selling, product_name
84     FROM products_transactions
85     LEFT JOIN products ON products_transactions.product_id = products.id
86     GROUP BY product_id, product_name
87     ORDER BY total_selling DESC;
88
```

| Result Grid | | Filter Rows: | | Export: | Wrap Cell Content: |

total_selling	product_name
▶ 68	riverlands north
68	Winterfell
66	Direwolf riverlands the
65	Tarly Stark
65	duel
62	Tully
61	Direwolf Stannis
61	skywalker ewok sith
61	jinn Winterfell
60	palpatine chewbacca
58	kingsblood Littlefinger the
57	Winterfell Lannister
57	duel tourney

Result 11 ✕