

NIVEL 1

Creo la nueva tabla, describo la tabla y ejecuto el código que añade datos a la tabla

```
11 -- Exercici 1
12 /* La teva tasca és dissenyar i crear una taula anomenada "credit_card" que emmagatzemi detalls crucials sobre les targetes de crèdit.
13 La nova taula ha de ser capaç d'identificar de manera única cada targeta i establir una relació adequada amb les altres dues taules
14 ("transaction" i "company").*/
15
16 • DROP TABLE IF EXISTS credit_card;
17 • CREATE TABLE IF NOT EXISTS credit_card
18 (
19     id VARCHAR(15) NOT NULL PRIMARY KEY,
20     iban VARCHAR(50),
21     pan VARCHAR(50),
22     pin INT,
23     cvv INT,
24     expiring_date VARCHAR(10)
25 );
26
27 -- para verificar la estructura de tabla y campos
28 • DESCRIBE credit_card;
29
30 -- Descripción de la tabla:
31 -- se trata de una tabla de dimensiones cuya PK 'id', apunta a la tabla de hechos 'transaction'. Definiré la FK en 'transactions' más adelante.
32 -- PK = campo id (único campo 'NOT NULL'). Verifico que el tipo de dato es igual que en la tabla de hechos 'transaction' (VARCHAR(15))
33 -- formato fecha = VARCHAR en lugar de DATE al utilizar '/' en lugar de '-' NO OBLIGATORIO
34 -- Resto campos = VARCHAR observando el formato en el script insert into. NO OBLIGATORIOS
35
36 -- Després de crear la taula serà necessari que ingressis la informació del document denominat "dades_introduir_credit":
37 -- Ejecuto el script 'datos_introducir_credit con 'INSERT INTO' facilitado en el ejercicio.
38
```

Field	Type	Null	Key	Default	Extra
id	varchar(15)	NO	PRI		
iban	varchar(50)	YES			
pan	varchar(50)	YES			
pin	int	YES			
cvv	int	YES			
expiring_date	varchar(10)	YES			

#	Time	Action	Message	Duration / Fetch
1	11:06:20	CREATE TABLE IF NOT EXISTS credit_card (id VARCHAR(15) NOT NULL PRIMARY KEY, iban VARCHAR(50), pan VARCHAR(50), pin INT, cvv INT, expiring_date VARCHAR(10))	0 row(s) affected	0.063 sec
2	11:06:23	DESCRIBE credit_card	6 row(s) returned	0.000 sec / 0.000 sec
3	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2938', 'TR301950312213576817638661', '5424465566813633', '3257', '984', '10/30/22')	1 row(s) affected	0.047 sec
4	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2945', 'DO26854763748537475216568689', '5142423821948828', '9080', '887', '08/24/23')	1 row(s) affected	0.016 sec
5	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2952', 'BG45IVQL52710525608255', '4556 453 55 5287', '4598', '438', '06/29/21')	1 row(s) affected	0.031 sec
6	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2959', 'CR724247724433581535', '372461377349375', '3583', '667', '02/24/23')	1 row(s) affected	0.016 sec
7	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2966', 'BG72LKTQ1562762...', '...', '...', '...', '...')	1 row(s) affected	0.015 sec
8	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2973', 'PT8706228135092...', '...', '...', '...', '...')	1 row(s) affected	0.016 sec
9	11:08:26	INSERT INTO credit_card (id, iban, pan, pin, cvv, expiring_date) VALUES ('CcU-2980', 'DE39241881883086...', '...', '...', '...', '...')	1 row(s) affected	0.000 sec

Muestro tabla resultante con un SELECT:

```
33 -- Muestro tabla resultante con un SELECT:
34 • SELECT * FROM credit_card;
```

id	iban	pan	pin	cvv	expiring_date
CcU-2938	TR301950312213576817638661	5424465566813633	3257	984	10/30/22
CcU-2945	DO26854763748537475216568689	5142423821948828	9080	887	08/24/23
CcU-2952	BG45IVQL52710525608255	4556 453 55 5287	4598	438	06/29/21
CcU-2959	CR724247724433581535	372461377349375	3583	667	02/24/23

#	Time	Action	Message
1	11:16:15	SELECT * FROM credit_card	275 row(s) returned

Añado CONSTRAINT con ALTER TABLE para definir foreign key en transaction

```

32 -- Añado CONSTRAINT con ALTER TABLE para definir foreign key en transaction:
33 ALTER TABLE transaction ADD CONSTRAINT fk_transaction_company_id FOREIGN KEY (company_id) REFERENCES company(id);

```

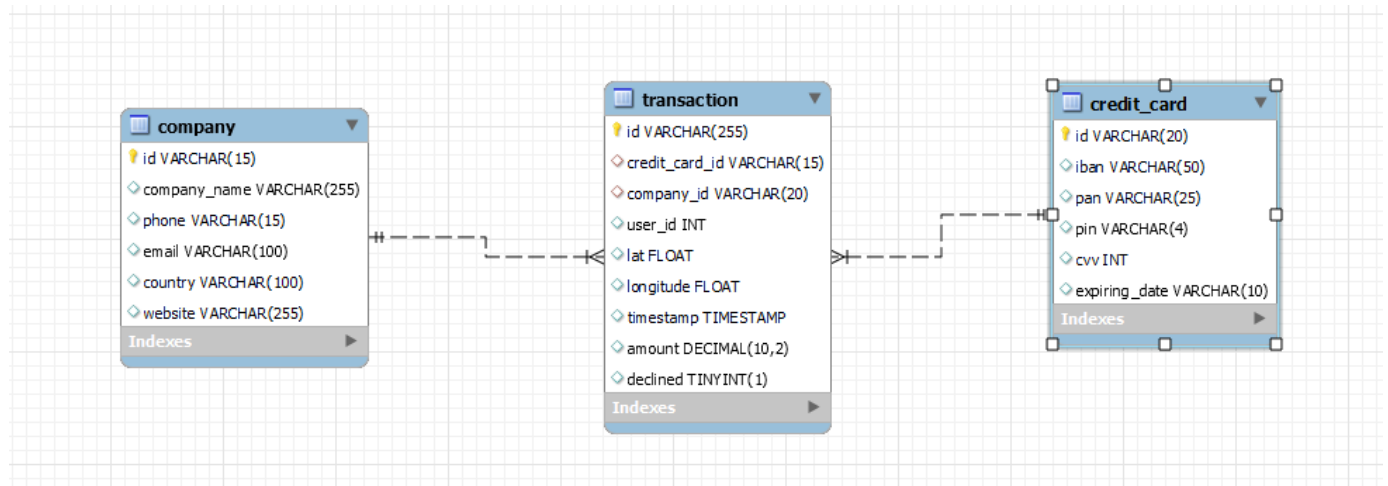
Output

Action Output

#	Time	Action	Message
1	11:20:13	ALTER TABLE transaction ADD CONSTRAINT fk_transaction_company_id FOREIGN KEY (company_id) REFERENCES company(id)	587 row(s) affected Records: 587 Duplicates: 0 Warnings: 0

Ahora la PK de Credit_card 'id' está relacionada con la tabla transaction a través de su FK 'fk_transaction_credit_card' 1:N:

1 credit card puede tener N transacciones, pero cada transacción pertenece únicamente a 1 credit_card



```

-- Tras los scripts, muestro la estructura de las tablas credit_card y transaction con el formato de sus campos:
DESCRIBE credit_card;
DESCRIBE company;
DESCRIBE transaction;

```

Field	Type	Null	Key	Default	Extra
id	varchar(15)	NO	PRI	NULL	
company_name	varchar(255)	YES		NULL	
phone	varchar(15)	YES		NULL	
email	varchar(100)	YES		NULL	
country	varchar(100)	YES		NULL	
website	varchar(255)	YES		NULL	

Field	Type	Null	Key	Default	Extra
id	varchar(255)	NO	PRI	NULL	
credit_card_id	varchar(15)	YES	MUL	NULL	
company_id	varchar(20)	YES	MUL	NULL	
user_id	int	YES		NULL	
lat	float	YES		NULL	
longitude	float	YES		NULL	
timestamp	timestamp	YES		NULL	
amount	decimal(10,2)	YES		NULL	
declined	tinyint(1)	YES		NULL	

Field	Type	Null	Key	Default	Extra
id	varchar(20)	NO	PRI	NULL	
iban	varchar(50)	YES		NULL	
pan	varchar(25)	YES		NULL	
pin	varchar(4)	YES		NULL	
cvv	int	YES		NULL	
expiring_date	varchar(10)	YES		NULL	

Para evitar errores hago coincidir el tipo de campo de la tabla transaction en la FK de company_id. En la tabla origen es varchar(15) en lugar de varchar(20):

Muestro datos originales con SELECT:

```
43 -- Exercici 2
44 /* El departament de Recursos Humans ha identificat un error en el número de compte de
45 l'usuari amb ID CcU-2938; La informació que ha de mostrar-se per a aquest registre
46 és: R323456312213576817699999. Recorda mostrar que el canvi es va realitzar */
47
48 -- Vemos los datos que tenemos de ese usuario:
49 • SELECT * FROM credit_card
50 WHERE id = 'CcU-2938';
```

Result Grid

	id	iban	pan	pin	cvv	expiring_date
▶	CcU-2938	TR301950312213576817638661	5424465566813633	3257	984	10/30/22
*	NULL	NULL	NULL	NULL	NULL	NULL

credit_card 11 ×

Output

Action Output

#	Time	Action	Message
✓ 1	12:00:30	SELECT * FROM credit_card WHERE id = 'CcU-2938'	1 row(s) returned

Modifico dato con UPDATE:

```
52 -- Modifico el dato con UPDATE:
53 • UPDATE credit_card
54 SET iban = 'R323456312213576817699999'
55 WHERE id = 'CcU-2938';
56
```

Output

Action Output

#	Time	Action	Message
✓ 1	12:08:50	UPDATE credit_card SET iban = 'R323456312213576817699999' WHERE id = 'CcU-2938'	

Verifico los cambios con un SELECT:

```
57 -- Verifico los datos modificados con SELECT:
58 • SELECT * FROM credit_card
59 WHERE id = 'CcU-2938';
60
```

Result Grid

	id	iban	pan	pin	cvv	expiring_date
▶	CcU-2938	R323456312213576817699999	5424465566813633	3257	984	10/30/22
*	NULL	NULL	NULL	NULL	NULL	NULL

credit_card 15 ×

Output

Action Output

#	Time	Action	Message
✓ 1	12:10:28	SELECT * FROM credit_card WHERE id = 'CcU-2938'	1 row(s) returned

```

76 -- Ejercicio 3
77 -- En la tabla "transaction" ingresa un nuevo usuario con la siguiente información:
78
79 -- Indico los campos con info a introducir y en el orden que especifica el ejercicio.
80 • INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, declined)
81 VALUES
82 ('10881D1D-5B23-A76C-55EF-C568E49A99DD', 'CcU-9999', 'b-9999', 9999, 829.999, -117.999, 111.11, 0);
83

```

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✖ 1	11:37:19	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, lon...	Error Code: 1452. Cannot add or update a child row: a foreign key constrai...	0.000 sec	

```

84 -- Error 1452: no encuentra la empresa b-9999. Por lo tanto:
85
86 -- 1. compruebo que efectivamente no exista la empresa en la tabla Company:
87 • SELECT * FROM company WHERE id = 'b-9999';

```

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✖ 1	11:37:19	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, lon...	Error Code: 1452. Cannot add or update a child row: a foreign key constrai...	0.000 sec	
✔ 2	11:38:33	SELECT * FROM company WHERE id = 'b-9999'	0 row(s) returned	0.000 sec / 0.000...	

```

89 -- 2. Creo la empresa y vuelvo a ejecutar la query inicial para insertar el nuevo usuario en transaction
90 • INSERT INTO company (id) -- sólo es 'not null' (obligatorio) el id:
91 VALUES ('b-9999');

```

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✔ 1	11:39:17	INSERT INTO company (id) -- sólo es 'not null' (obligatorio) el id: VALUES (...	1 row(s) affected	0.000 sec	

```

93 -- 3. Muestro que existe la nueva empresa:
94 • SELECT * FROM company
95 WHERE id = 'b-9999';

```

Result Grid					
id	company_name	phone	email	country	website
b-9999	NULL	NULL	NULL	NULL	NULL
*	NULL	NULL	NULL	NULL	NULL

Vertical Output					
company 14					
#	Time	Action	Message	Duration / Fetch	
✔ 1	11:48:30	SELECT * FROM company WHERE id = 'b-9999'	1 row(s) returned	0.000 sec / 0.000 sec	

```

112 -- Exercici 4
113 /*Des de recursos humans et sol·liciten eliminar la columna "pan" de la taula credit_card.
114 Recordar mostrar el canvi realitzat*/
115
116 -- Reviso lo campos existentes de la tabla:
117 DESCRIBE credit_card;
118
119 -- Modifico la tabla credit_card para eliminar la columna:
120 ALTER TABLE credit_card
121 DROP COLUMN pan;
122
123 -- verifico columna eliminada:los campos existentes de la tabla:
124 DESCRIBE credit_card;
125
126 -- Muestro los datos de la tabla con las columnas actualizadas:
127 SELECT * FROM credit_card;

```

Describe credit_card antes del cambio:

Field	Type	Null	Key	Default	Extra
id	varchar(8)	NO	PRI	NULL	
iban	varchar(34)	YES		NULL	
pin	int	YES		NULL	
cvv	int	YES		NULL	
expiring_date	date	YES		NULL	

Describe credit_card después del cambio:

Field	Type	Null	Key	Default	Extra
id	varchar(8)	NO	PRI	NULL	
iban	varchar(34)	YES		NULL	
pin	int	YES		NULL	
cvv	int	YES		NULL	
expiring_date	date	YES		NULL	

Resultado del SELECT tras la acción con resumen de outputs:

#	Time	Action	Message	Duration / Fetch
1	12:17:15	DESCRIBE credit_card	6 row(s) returned	0.015 sec / 0.000 sec
2	12:17:54	ALTER TABLE credit_card DROP COLUMN pan	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.078 sec
3	12:17:58	DESCRIBE credit_card	5 row(s) returned	0.000 sec / 0.000 sec
4	12:19:10	SELECT * FROM credit_card	275 row(s) returned	0.000 sec / 0.000 sec

NIVEL 2

```
133 -- Ejercicio 1
134 -- Elimina de la taula transaction el registre amb ID 02C6201E-D90A-1859-B4EE-88D2986D3B02 de la BD.
135 -- 1. Compruebo si existe esta transacción:
136 • SELECT * FROM transaction
137 WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';
```

Result Grid									
Filter Rows:									
	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Output				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	12:33:06	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	0 row(s) returned	0.000 sec / 0.000 sec

```
139 -- 2. NO existe, por lo que la creamos en la tabla transaction:
140 • INSERT INTO transaction (id)
141 VALUES ('02C6201E-D90A-1859-B4EE-88D2986D3B02');
142
```

Output				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	12:33:06	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	0 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:34:32	INSERT INTO transaction (id) VALUES ('02C6201E-D90A-1859-B4EE-88D2986D3B02');	1 row(s) affected	0.031 sec

```
143 -- 3. Verifico que existe con un SELECT:
144 • SELECT * FROM transaction
145 WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';
146
```

Result Grid									
Filter Rows:									
	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
▶	02C6201E-D90A-1859-B4EE-88D2986D3B02	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Vertical Output transaction 25 x Apply Revert

Output				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	12:33:06	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	0 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:34:32	INSERT INTO transaction (id) VALUES ('02C6201E-D90A-1859-B4EE-88D2986D3B02');	1 row(s) affected	0.031 sec
✓ 3	12:39:15	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	1 row(s) returned	0.015 sec / 0.000 sec

```
147 -- 4. para poder eliminarla:
148 • DELETE FROM transaction
149 WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';
```

Output				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	12:33:06	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	0 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:34:32	INSERT INTO transaction (id) VALUES ('02C6201E-D90A-1859-B4EE-88D2986D3B02');	1 row(s) affected	0.031 sec
✓ 3	12:39:15	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	1 row(s) returned	0.015 sec / 0.000 sec
✓ 4	12:40:53	DELETE FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';	1 row(s) affected	0.015 sec

```
151 -- 5. comprobamos que la hemos eliminado (NO devuelve filas):
152 • SELECT * FROM transaction
153 WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3B02';
154
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Vertical Output transaction 26 x Apply Revert

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:33:06	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D...	0 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:34:32	INSERT INTO transaction (id) VALUES ('02C6201E-D90A-1859-B4EE-88D2986D3...	1 row(s) affected	0.031 sec
✓ 3	12:39:15	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2...	1 row(s) returned	0.015 sec / 0.000 sec
✓ 4	12:40:53	DELETE FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D3...	1 row(s) affected	0.015 sec
✓ 5	12:42:09	SELECT * FROM transaction WHERE id = '02C6201E-D90A-1859-B4EE-88D2986D...	0 row(s) returned	0.000 sec / 0.000 sec

```

157 -- Exercici 2
158 /* La secció de màrqueting desitja tenir accés a informació específica per a realitzar anàlisi i estratègies efectives.
159 S'ha sol·licitat crear una vista que proporcioni detalls clau sobre les companyies i les seves transaccions.
160 Serà necessària que creïs una vista anomenada VistaMarketing que contingui la següent informació:
161 Nom de la companyia. Telèfon de contacte. País de residència. Mitjana de compra realitzat per cada companyia.
162 Presenta la vista creada, ordenant les dades de major a menor mitjana de compra */
163
164 • DROP VIEW IF EXISTS VistaMarketing;
165
166 • CREATE VIEW VistaMarketing
167 AS
168 SELECT c.company_name AS Empresa, c.phone AS Teléfono, c.country AS País, AVG(t.amount) AS MediaCompra
169 FROM company c
170 LEFT JOIN transaction t ON c.id = t.company_id
171 GROUP BY c.company_name, c.phone, c.country
172 ORDER BY MediaCompra DESC;

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:45:04	CREATE VIEW VistaMarketing AS SELECT c.company_name AS Empresa, c.phone ...	0 row(s) affected	0.015 sec

```

174 -- Muestro los campos de la vista
175 • SHOW CREATE VIEW VistaMarketing;
176

```

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

View	Create View	character_set_client	collation_connection
vistamarketing	CREATE ALGORITHM=UNDEFINED DEFINER='r...' utf8mb4	utf8mb4	utf8mb4_0900_ai_ci

Result 27 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:45:04	CREATE VIEW VistaMarketing AS SELECT c.company_name AS Empresa, c.phon...	0 row(s) affected	0.015 sec
✓ 2	12:47:28	SHOW CREATE VIEW VistaMarketing	1 row(s) returned	0.000 sec / 0.000 sec

177 -- Muestro los datos de la vista con las columnas del enunciado

178 • SELECT * FROM VistaMarketing;

179

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

Empresa	Teléfono	País	MediaCompra
Eget Ipsum Ltd	03 67 44 56 72	United States	473.075000
Non Magna LLC	06 71 73 13 17	United Kingdom	468.345000
Sed Id Limited	07 28 18 18 13	United States	461.210000
Justo Eu Arcu Ltd	08 42 56 71 52	Italy	443.635000
Eget Tincidunt Dui Institute	05 35 93 32 44	Netherlands	442.520000

VistaMarketing 28 x

Read Only

#	Time	Action	Message	Duration / Fetch
✓ 1	12:45:04	CREATE VIEW VistaMarketing AS SELECT c.company_name AS Empresa, c.phon...	0 row(s) affected	0.015 sec
✓ 2	12:47:28	SHOW CREATE VIEW VistaMarketing	1 row(s) returned	0.000 sec / 0.000 sec
✓ 3	12:48:57	SELECT * FROM VistaMarketing	101 row(s) returned	0.000 sec / 0.000 sec

182 -- Ejercicio 3

183 /* Filtra la vista VistaMarketing per a mostrar només les companyies
184 que tenen el seu país de residència en "Germany" */

185

186 • SELECT * FROM VistaMarketing

187 WHERE País = 'Germany';

188

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

Empresa	Teléfono	País	MediaCompra
Aliquam PC	01 45 73 52 16	Germany	385.265000
Ac Industries	09 34 65 40 60	Germany	289.645000
Rutrum Non Inc.	02 66 31 61 09	Germany	266.900000
Nunc Interdum Incorporated	05 18 15 48 13	Germany	244.025238
Augue Foundation	06 88 43 15 63	Germany	240.800000
Ac Fermentum Incorporated	06 85 56 52 33	Germany	206.465000
Auctor Mauris Corp.	05 62 87 14 41	Germany	184.310000
Convallis In Incorporated	06 66 57 29 50	Germany	156.730000

VistaMarketing 31 x

Read Only

#	Time	Action	Message	Duration / Fetch
✓ 1	12:52:02	SELECT * FROM VistaMarketing WHERE País = 'Germany'	8 row(s) returned	0.000 sec / 0.000 sec

NIVEL 3

```
193 -- Exercici 1
194 /* La setmana vinent tindrà una nova reunió amb els gerents de màrqueting.
195 Un company del teu equip va realitzar modificacions en la base de dades, però no recorda com les va realitzar.
196 Et demana que l'ajudis a deixar els comandos executats per a obtenir el següent diagrama: */
197
198 -- TABLA company:
199 -- Reviso campos de la tabla company.
200 • DESCRIBE company;
201
```

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

Field	Type	Null	Key	Default	Extra
id	varchar(15)	NO	PRI	NULL	
company_name	varchar(255)	YES		NULL	
phone	varchar(15)	YES		NULL	
email	varchar(100)	YES		NULL	
country	varchar(100)	YES		NULL	
website	varchar(255)	YES		NULL	

Result 32 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:54:29	DESCRIBE company	6 row(s) returned	0.000 sec / 0.000 sec

```
202 -- No necesitan la columna 'website':
203 • ALTER TABLE company
204 DROP COLUMN website;
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:54:29	DESCRIBE company	6 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:56:54	ALTER TABLE company DROP COLUMN website	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.094 sec

```
206 -- Reviso campos resultantes de la tabla company.
207 • DESCRIBE company;
208
```

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

Field	Type	Null	Key	Default	Extra
id	varchar(15)	NO	PRI	NULL	
company_name	varchar(255)	YES		NULL	
phone	varchar(15)	YES		NULL	
email	varchar(100)	YES		NULL	
country	varchar(100)	YES		NULL	

Result 33 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	12:54:29	DESCRIBE company	6 row(s) returned	0.000 sec / 0.000 sec
✓ 2	12:56:54	ALTER TABLE company DROP COLUMN website	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.094 sec
✓ 3	12:59:47	DESCRIBE company	5 row(s) returned	0.000 sec / 0.000 sec

TABLA USER

```

1  -- Creamos la tabla user
2
3  • CREATE INDEX idx_user_id ON transaction(user_id);
4
5  • CREATE TABLE IF NOT EXISTS user (
6      id INT PRIMARY KEY,
7      name VARCHAR(100),
8      surname VARCHAR(100),
9      phone VARCHAR(150),
10     email VARCHAR(150),
11     birth_date VARCHAR(100),
12     country VARCHAR(150),
13     city VARCHAR(150),
14     postal_code VARCHAR(100),
15     address VARCHAR(255),
16     FOREIGN KEY(id) REFERENCES transaction(user_id)
17 );

211 -- Reviso campos de la tabla:
212 • DESCRIBE user;
213 -- Observaciones:
214 -- PK = id. Es el único campo NOT NUL (obligatorio)
215 -- FK = FOREIGN KEY(id) REFERENCES transaction(user_id)
216 /* esta línea del script es incorrecta. Está al revés. En transaction tenemos
217 el 'user_id' como FK que apunta al campo 'id' (PK) de la tabla user*/
218 -- Resto de campos son VARCHAR y pueden ser NULL (no obligatorios)
219

```

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

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
name	varchar(100)	YES		NULL	
surname	varchar(100)	YES		NULL	
phone	varchar(150)	YES		NULL	
email	varchar(150)	YES		NULL	
birth_date	varchar(100)	YES		NULL	
country	varchar(150)	YES		NULL	
city	varchar(150)	YES		NULL	
postal_code	varchar(100)	YES		NULL	
address	varchar(255)	YES		NULL	

Result 34 x

Read Only

#	Time	Action	Message	Duration / Fetch
1	13:05:48	DESCRIBE user	Error Code: 1146. Table 'transactions.user' doesn't exist	0.000 sec
2	13:06:03	CREATE TABLE IF NOT EXISTS user (id INT PRIMARY KEY, name VA...	0 row(s) affected	0.062 sec
3	13:06:20	DESCRIBE user	10 row(s) returned	0.000 sec / 0.000 sec

```

220 -- Establezco la relación con la tabla de hechos 'transaction' de forma que 'user_id' sea la FK que apunta
221 -- a la PK 'id' de la tabla de dimensiones 'user':
222 • ALTER TABLE transaction ADD CONSTRAINT fk_transaction_user FOREIGN KEY (user_id) REFERENCES user(id);
223

```

#	Time	Action	Message	Duration / Fetch
1	13:18:03	ALTER TABLE transaction ADD CONSTRAINT fk_transaction_user FOREIGN KEY (...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 sec

OPCIÓN B

```

220 -- Establezco la relación con la tabla de hechos 'transaction' de forma que 'user_id' sea la FK que apunta
221 -- a la PK 'id' de la tabla de dimensiones 'user' y elimino la FK 'user_ibfk_1' definida inicialmente
222 • ALTER TABLE transaction ADD CONSTRAINT fk_transaction_user FOREIGN KEY (user_id) REFERENCES user(id);
223 • ALTER TABLE user DROP FOREIGN KEY user_ibfk_1;

```

```

228      -- Reviso campos de la tabla con el nuevo nombre
229      •      DESCRIBE data_user;
230
231      -- Muestro los datos de la tabla:
232      •      SELECT * FROM data_user;

```

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

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
name	varchar(100)	YES		NULL	
surname	varchar(100)	YES		NULL	
phone	varchar(150)	YES		NULL	
email	varchar(150)	YES		NULL	
birth_date	varchar(100)	YES		NULL	
country	varchar(150)	YES		NULL	
city	varchar(150)	YES		NULL	
postal_code	varchar(100)	YES		NULL	
address	varchar(255)	YES		NULL	

Result 35 x

Read Only

#	Time	Action	Message	Duration / Fetch
✓ 1	13:23:19	RENAME TABLE user TO data_user	0 row(s) affected	0.063 sec
✓ 2	13:24:39	DESCRIBE data_user	10 row(s) returned	0.000 sec / 0.000 sec

TABLA CREDIT CARD

```

234      -- TABLA Credit Card
235      -- Verifico los campos de la tabla:
236      •      DESCRIBE credit_card;
237

```

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

Field	Type	Null	Key	Default	Extra
id	varchar(15)	NO	PRI	NULL	
iban	varchar(50)	YES		NULL	
pin	int	YES		NULL	
cvv	int	YES		NULL	
expiring_date	varchar(10)	YES		NULL	

Result 36 x

Read Only

#	Time	Action	Message	Duration / Fetch
✓ 1	13:27:04	DESCRIBE credit_card	5 row(s) returned	0.000 sec / 0.000 sec

```

238      -- añado campo 'fecha_actual' y modifico formato de los campos
239      •      ALTER TABLE credit_card
240      ADD COLUMN fecha_actual DATE,
241      MODIFY id VARCHAR(20),
242      MODIFY iban VARCHAR(50),
243      MODIFY pin VARCHAR(4);
244
245      -- Verifico los campos de la tabla:
246      •      DESCRIBE credit_card; -- verifico cambios

```

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

Field	Type	Null	Key	Default	Extra
id	varchar(20)	NO	PRI	NULL	
iban	varchar(50)	YES		NULL	
pin	varchar(4)	YES		NULL	
cvv	int	YES		NULL	
expiring_date	varchar(10)	YES		NULL	
fecha_actual	date	YES		NULL	

Result 37 x

Read Only

#	Time	Action	Message	Duration / Fetch
✓ 1	13:27:04	DESCRIBE credit_card	5 row(s) returned	0.000 sec / 0.000 sec
✓ 2	13:28:34	ALTER TABLE credit_card ADD COLUMN fecha_actual DATE, MODIFY id VARCH...	275 row(s) affected Records: 275 Duplicates: 0 Warnings: 0	0.094 sec
✓ 3	13:28:41	DESCRIBE credit_card	6 row(s) returned	0.000 sec / 0.000 sec

```

253 -- Exercici 2
254 /* L'empresa també et sol·licita crear una vista anomenada "InformeTecnico"
255 que contingui la següent informació:
256
257     ID de la transacció
258     Nom de l'usuari/ària
259     Cognom de l'usuari/ària
260     IBAN de la targeta de crèdit usada.
261     Nom de la companyia de la transacció realitzada.
262
263 Assegura't d'incloure informació rellevant de totes dues taules i utilitza àlies
264 per a canviar de nom columnes segons sigui necessari.
265 Mostra els resultats de la vista, ordena els resultats de manera descendent
266 en funció de la variable ID de transaction.*/

267 -- Creo la vista con los campos del enunciado
268 DROP VIEW IF EXISTS InformeTecnico;
269
270 CREATE VIEW InformeTecnico
271 AS
272 SELECT t.id AS TransaccionId, u.name AS Nombre, u.surname AS Apellido, cc.iban AS IBAN, c.company_name AS Empresa
273 FROM transaction t
274 JOIN company c ON t.company_id = c.id
275 JOIN data_user u ON t.user_id = u.id
276 JOIN credit_card cc ON t.credit_card_id = cc.id
277 ORDER BY TransaccionId DESC;
278
279 -- Verifico estructura y campos de la vista:
280 SHOW CREATE VIEW InformeTecnico;

```

View	Create View	character_set_client	collation_connection
informetecnico	CREATE ALGORITHM=UNDEFINED DEFINER='r...' utf8mb4	utf8mb4	utf8mb4_0900_ai_ci

Result 38 x

Read Only

#	Time	Action	Message	Duration / Fetch
1	13:31:00	DROP VIEW IF EXISTS InformeTecnico	0 row(s) affected, 1 warning(s): 1051 Unknown table 'transactions.informetecnico'	0.016 sec
2	13:31:15	CREATE VIEW InformeTecnico AS SELECT t.id AS TransaccionId, u.name AS Nom...	0 row(s) affected	0.031 sec
3	13:31:23	SHOW CREATE VIEW InformeTecnico	1 row(s) returned	0.000 sec / 0.000 sec

```

280 -- Verifico estructura y campos de la vista:
281 SHOW CREATE VIEW InformeTecnico;

```

TransaccionId	Nombre	Apellido	IBAN	Empresa
FE96CE47-BD59-381C-4E18-E3CA3D44E8FF	Kenyon	Hartman	DO26854763748537475216568689	Magna A Neque Industries
FE809ED4-2DB6-55AC-C915-929516E4646B	Molly	Gilliam	SE2813123487163628531121	Nunc Interdum Incorporated
FD9CBCCD-8E1E-8DA1-4606-7E3A6F3A5A65	Linus	Willis	KW9485332754781757886242955643	Nunc Interdum Incorporated
FD89D51B-AE8D-77DC-E450-B8083FBD3187	Hilda	Levy	LT053237077744561475	Malesuada PC
FD2E8957-414B-8EEC-E9AD-59AA7A8A6290	Hedwig	Gilbert	GE84848451582810541526	Neque Tellus Imperdiet Corp.

#	Time	Action	Message	Duration / Fetch
1	10:27:48	SELECT * FROM InformeTecnico	586 row(s) returned	0.000 sec / 0.000 sec

Diagrama final tablas DDBB 'tansactions':

