

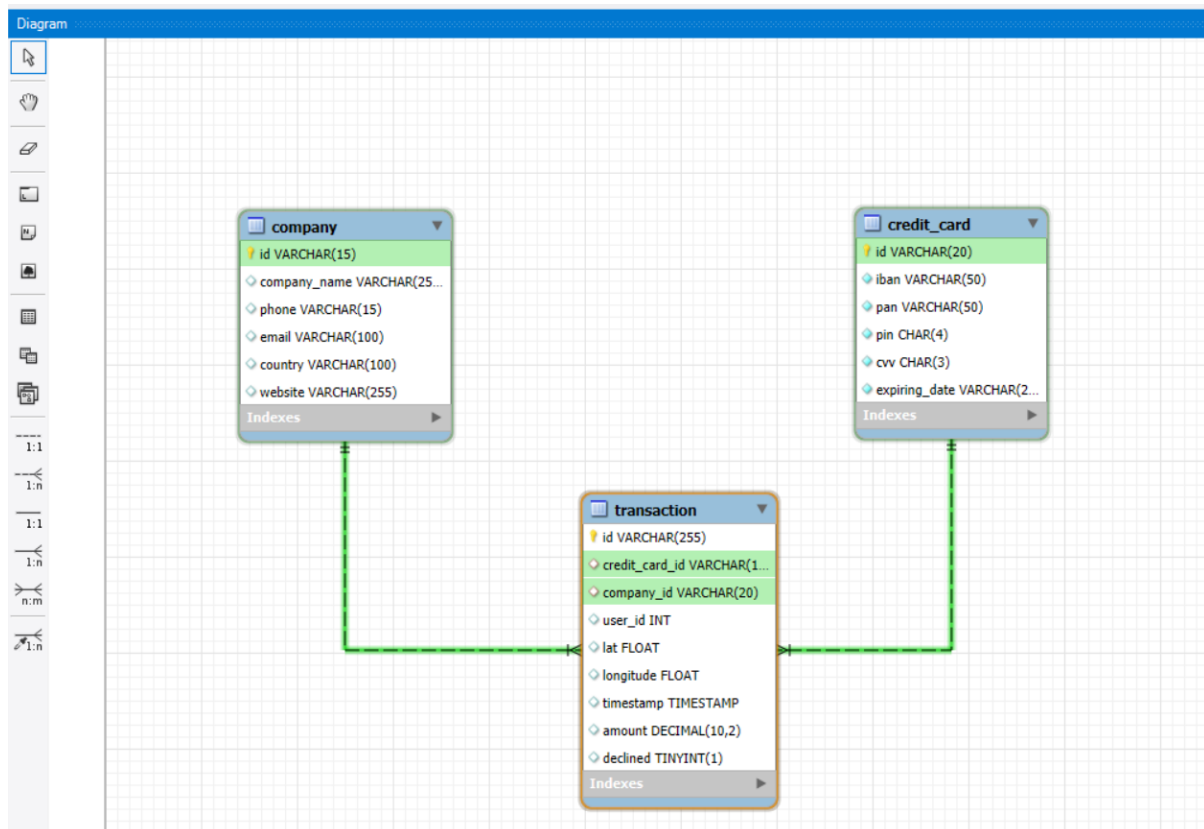
SPRINT 3

Nivell 1

Exercici 1

La teva tasca és dissenyar i crear una taula anomenada "credit_card" que emmagatzemi detalls crucials sobre les targetes de crèdit. 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"). 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.

```
CREATE TABLE transactions.credit_card (  
    id VARCHAR(20) NOT NULL PRIMARY KEY,  
    iban VARCHAR(50) NOT NULL UNIQUE,  
    pan VARCHAR(50) NOT NULL UNIQUE,  
    pin CHAR(4) NOT NULL,  
    cvv CHAR(3) NOT NULL,  
    expiring_date VARCHAR(20) NOT NULL  
);  
  
ALTER TABLE transaction  
ADD CONSTRAINT fk_transaction_credit_card  
FOREIGN KEY (credit_card_id)  
REFERENCES credit_card(id);
```



La nova taula que em creat amb el nom de “credit_card” emmagatzema la informació de les targetes de crèdit, identificant-les de manera única mitjançant el seu id.

La taula “credit_card” es relaciona amb la taula “transaction” mitjançant “credit_card_id”, permetent registrar múltiples transaccions per cada targeta.

Exercici 2

El departament de Recursos Humans ha identificat un error en el número de compte associat a la targeta de crèdit amb ID CcU-2938. La informació que ha de mostrar-se per a aquest registre és: TR323456312213576817699999. Recorda mostrar que el canvi es va realitzar.

```
UPDATE credit_card
SET iban = "TR323456312213576817699999"
WHERE id = "CcU-2938";
```

Exercici 3

En la taula "transaction" ingressa una nova transacció amb la següent informació:

Id	108B1D1D-5B23-A76C-55EF-C568E49A99DD
credit_card_id	CcU-9999
company_id	b-9999
user_id	9999
lat	829.999
longitude	-117.999
amount	111.11
declined	0

El valor `company_id = 'b-9999'` no existeix a la taula `company` ni tampoc el `credit_card_id = 'CcU-999'` a la taula `credit_card`. Al ser dos `foreigns keys` i estar relacionada la taula `transaction` amb les altres dues taules, en primera instància ens apareix un error, ja que aquestes variables no poden ser nul·les.

Per a solucionar-ho, primer creem el registre a les taules `company` i `credit_card`. A més, com inicialment al crear la taula `credit_card` vaig indicar que les variables no podien ser nul·les, ho modifico des d'aquí:

The screenshot shows the MySQL Workbench interface for the 'credit_card' table in the 'transactions' schema. The table structure is as follows:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
id	VARCHAR(20)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
iban	VARCHAR(50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
pan	VARCHAR(50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
pin	CHAR(4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
cvv	CHAR(3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
expiring_date	VARCHAR(20)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

The 'expiring_date' column is currently selected. The interface shows options for Data Type, Default, Storage, Primary Key, Not Null, Unique, Binary, Unsigned, Zero Fill, Auto Increment, and Generated. The 'Columns' tab is active at the bottom.

Finalment, ja podem resoldre l'exercici.

```

29
30 #EXERCICI 3: En la taula "transaction" ingressa una nova transacció amb la següent informació:
31 • INSERT INTO company (id)
32   VALUES ("b-9999");
33
34 • INSERT INTO credit_card (id)
35   VALUES ("CcU-9999");
36
37 • INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, declined)
38   VALUES ("10881D1D-5B23-A76C-55EF-C568E49A99DD", "CcU-9999", "b-9999", 9999, 829.999, -117.999, 111.11, 0);

```

Output

#	Time	Action	Message	Duration / Fetch
9	10:21:57	ALTER TABLE transaction ADD CONSTRAINT fk_transaction_bfk_1 FOREIGN KEY (company_id) REF...	Error Code: 1826. Duplicate foreign key constraint name 'fk_transaction_bfk_1'	0.000 sec
10	10:23:17	SELECT * FROM transactions.credit_card	5000 row(s) returned	0.000 sec / 0.016 sec
11	10:24:49	INSERT INTO credit_card (id) VALUES ("CcU-9999")	Error Code: 1364. Field 'iban' doesn't have a default value	0.000 sec
12	10:25:37	Apply changes to credit_card	Changes applied	
13	10:26:10	INSERT INTO credit_card (id) VALUES ("CcU-9999")	1 row(s) affected	0.016 sec
14	10:26:15	INSERT INTO transaction (id, credit_card_id, company_id, user_id, lat, longitude, amount, declined) VALUE...	1 row(s) affected	0.016 sec

Verifiquem que s'ha afegit correctament el registre a transaction:

Sprint 3_Marcos_Molina* transaction

```

1 • SELECT * FROM transactions.transaction;

```

Result Grid

	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
▶	10881D1D-5B23-A76C-55EF-C568E49A99DD	CcU-9999	b-9999	9999	829.999	-117.999	NULL	111.11	0
	00D8F1C6-FF88-4E47-B268-8C32AD4112C3	CcU-4856	b-2314	1	40.7175	-73.996	2022-01-25 22:57:15	272.45	0
	02800D87-FAF0-4602-B28C-76FF7F8897EE	CcU-4856	b-2494	1	40.7222	-73.9985	2016-09-22 02:43:55	212.74	0
	1EDDC7AC-D3CA-440B-A048-3CBC692995CB	CcU-4856	b-2426	1	40.707	-74.0055	2024-11-15 14:48:20	254.46	0
	338C8AEC-D406-4D20-9B83-00503AACA5AB	CcU-4856	b-2446	1	40.7125	-73.9979	2018-11-03 03:57:13	479.39	0
	385E6817-317E-4C92-A7C8-B50F7571858D	CcU-4856	b-2294	1	40.7177	-74.0102	2019-12-04 20:36:55	384.75	0
	3D2869C9-52D8-4903-9666-08CE556A5054	CcU-4856	b-2382	1	40.7192	-74.0058	2020-09-06 11:20:26	394.73	1
	3F2720A9-C1C9-4D9B-9FFD-C822367D6929	CcU-4856	b-2390	1	40.7133	-74.0045	2020-08-20 16:55:54	189.72	0
	4AB68EE1-181A-4690-AB53-92B865C7F89C	CcU-4856	b-2338	1	40.7196	-74.0064	2017-10-12 09:30:10	429.61	0
	55985941-32AF-490C-BD5A-30549368ACD9	CcU-4856	b-2390	1	40.7065	-74.0081	2020-06-12 19:22:27	535.45	0
	6ED484BC-2DBB-47CF-B77E-12752FCB43E2	CcU-4856	b-2242	1	40.7188	-74.0131	2015-05-08 18:09:41	233.52	0

transaction 1 x

Output

#	Time	Action	Message
✓ 1	10:40:00	SELECT * FROM transactions.transaction	100001 row(s) returned

Exercici 4

Des de recursos humans et sol·liciten eliminar la columna "pan" de la taula credit_card. Recordar mostrar el canvi realitzat.

39

40 #EXERCICI 4: Des de recursos humans et sol·liciten eliminar la columna "pan" de la taula credit_card. Recordar mostrar el canvi realitzat.

41 • ALTER TABLE credit_card DROP COLUMN pan;

Output

#	Time	Action	Message
1	10:43:03	ALTER TABLE credit_card DROP COLUMN pan	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
2	10:43:14	SELECT * FROM transactions.credit_card	5001 row(s) returned

Sprint_3_Marcos_Molina* credit_card

1 • SELECT * FROM transactions.credit_card;

Result Grid

	id	iban	pin	cvv	expiring_date
▶	CcS-4857	XX4857591835292505850771	1819	467	09/27/25
	CcS-4858	XX8581768137002436094025	3964	817	12/28/28
	CcS-4859	XX7826930491423553609370	4983	277	11/26/26
	CcS-4860	XX5559590368835304645299	6876	661	07/27/27
	CcS-4861	XX2035182877195191627307	5710	398	04/25/26
	CcS-4862	XX4774721462463645409758	4042	174	11/27/26
	CcS-4863	XX1476829664245046207111	5969	449	12/27/29
	CcS-4864	XX8380298893385731196159	8481	139	02/28/26
	CcS-4865	XX7085078596101025280599	7847	903	11/25/28
	CcS-4866	XX4797859188706596406839	9271	961	07/28/25

credit_card 1

Output

#	Time	Action	Message
1	10:43:03	ALTER TABLE credit_card DROP COLUMN pan	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
2	10:43:14	SELECT * FROM transactions.credit_card	5001 row(s) returned

Nivell 2

Exercici 1

Elimina de la taula transaction el registre amb ID 000447FE-B650-4DCF-85DE-C7ED0EE1CAAD de la base de dades.

```

46
47 #EXERCICI 1: Elimina de la taula transaction el registre amb ID 000447FE-B650-4DCF-85DE-C7ED0EE1CAAD de la base de dades.
48 • SELECT *
49 FROM transaction
50 WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD";
51
52 • DELETE FROM transaction
53 WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD";
54
55 • SELECT *
56 FROM transaction
57 WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD";

```

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

transaction 7 x

Output

#	Time	Action	Message
✓ 1	10:50:57	SELECT * FROM transaction WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD"	1 row(s) returned
✓ 2	10:52:16	DELETE FROM transaction WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD"	1 row(s) affected
✓ 3	10:53:12	SELECT * FROM transaction WHERE id = "000447FE-B650-4DCF-85DE-C7ED0EE1CAAD"	0 row(s) returned

1r demanem que retorni les dades d'aquest id, posteriorment eliminem de la taula el registre i finalment tornem a demanar que es mostri l'id per a verificar que ha estat esborrat correctament.

Exercici 2

La secció de màrqueting desitja tenir accés a informació específica per a realitzar anàlisi i estratègies efectives. S'ha sol·licitat crear una vista que proporcioni detalls clau sobre les companyies i les seves transaccions. Serà necessària que creïs una vista anomenada VistaMarketing que contingui la següent informació: Nom de la companyia. Telèfon de contacte. País de residència. Mitjana de compra realitzat per cada companyia. Presenta la vista creada, ordenant les dades de major a menor mitjana de compra.

```

63 • CREATE VIEW VistaMarketing AS
64 SELECT company_name, phone, country, ROUND(AVG(amount), 2) AS mitjana_compra
65 FROM company c
66 JOIN transaction t ON c.id = t.company_id
67 WHERE declined=0
68 GROUP BY c.id;
69
70 • SELECT *
71 FROM VistaMarketing
72 ORDER BY mitjana_compra DESC;

```

company_name	phone	country	mitjana_compra
Ac Fermentum Incorporated	06 85 56 52 33	Germany	284.91
Pretium Neque Corp.	07 77 48 55 28	Australia	275.58
Uma Convalis Associates	06 01 24 77 04	United States	273.57
At Associates	09 56 61 10 65	New Zealand	272.74
Metus Vitae Associates	08 25 44 40 66	Australia	270.05
Aliquet Diam Limited	02 76 61 47 46	United States	269.29
Nec Luctus LLC	02 14 71 75 73	Norway	268.60
Neque Tellus Incorporated	04 43 18 34 19	Ireland	267.56
Cras Consulting	07 50 10 85 63	Belgium	267.38
Sed LLC	01 63 16 26 52	Belgium	266.61
Eget Ipsum Ltd	03 67 44 56 72	United States	266.27
Tortor Nunc Commodo Com...	05 35 92 77 16	United States	266.26
Amet Institute	06 33 40 21 33	Australia	265.54
Fusce Corp.	08 14 97 58 85	United States	265.12
Ut Semper Foundation	01 60 36 33 06	Sweden	264.73

VistaMarketing 20 x

Output

#	Time	Action	Message	Duration / Fetch
1	13:36:42	CREATE VIEW VistaMarketing AS SELECT company_name, phone, country, ROUND(AVG(amount), 2) AS m...	0 row(s) affected	0.047 sec
2	13:36:45	SELECT * FROM VistaMarketing ORDER BY mitjana_compra DESC	101 row(s) returned	0.297 sec / 0.000 sec

Exercici 3

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

```

73
74 #EXERCICI 3: Filtra la vista VistaMarketing per a mostrar només les companyies que tenen el seu país de residència en "Germany"
75 • SELECT *
76 FROM VistaMarketing
77 WHERE country = "Germany";
78
79

```

company_name	phone	country	mitjana_compra
Ac Fermentum Incorporated	06 85 56 52 33	Germany	284.91
Nunc Interdum Incorporated	05 18 15 48 13	Germany	259.32
Convalis In Incorporated	06 66 57 29 50	Germany	257.69
Ac Industries	09 34 65 40 60	Germany	255.17
Rutrum Non Inc.	02 66 31 61 09	Germany	255.14
Auctor Mauris Corp.	05 62 87 14 41	Germany	254.68
Augue Foundation	06 88 43 15 63	Germany	253.56
Aliquam PC	01 45 73 52 16	Germany	252.96

VistaMarketing 13 x

Output

#	Time	Action	Message	Duration / Fetch
1	11:20:53	SELECT * FROM VistaMarketing WHERE country = "Germany"	8 row(s) returned	0.187 sec / 0.000 sec

Nivell 3

Exercici 1

La setmana vinent tindràs una nova reunió amb els gerents 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:

The screenshot displays a database management interface with a left sidebar showing a tree view of database objects. The main area shows a SQL script with the following commands:

```
78
79 #####
80
81 #NIVELL 3
82
83 #EXERCICI 1: La setmana vinent tindràs una nova reunió amb els gerents de màrqueting. Un company del teu equip va realitzar modificacions en la base de dades,
84 #però no recorda com les va realitzar. Et demana que l'ajudis a deixar els comandos executats per a obtenir el següent diagrama:
85
86 CREATE TABLE IF NOT EXISTS user (
87     id CHAR(10) PRIMARY KEY,
88     name VARCHAR(100),
89     surname VARCHAR(100),
90     phone VARCHAR(150),
91     email VARCHAR(150),
92     birth_date VARCHAR(100),
93     country VARCHAR(150),
94     city VARCHAR(150),
95     postal_code VARCHAR(100),
96     address VARCHAR(255)
97 );
98
99
100
101
102
```

The output window shows the execution of the CREATE TABLE command:

#	Time	Action	Message	Duration / Fetch
1	11:49:16	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))	0 row(s) affected	0.032 sec

Below the output window, a table of data is displayed:

id	name	surname	phone	email	birth_date	country	city	postal_code	address
1	Zeus	Gamble	1-282-581-0551	interdum.enim@protonmail.edu	Nov 17, 1985	United States	New York	10001	348-7818 Sagittis St.
10	Robert	Mccarthy	(324) 746-6771	fermentum@protonmail.com	Apr 30, 1984	United States	San Jose	95101	P.O. Box 773
100	Melodie	Mclean	1-677-221-7152	risus.varius@google.ca	Sep 15, 1989	United States	San Jose	95101	Ap #644-8492 Sagittis St.
1000	Amikrv	Qbulnbp	+48-258-9936	amikrv.qbulnbp@example.com	May 17, 1970	Germany	Stuttgart	70173	215 Qbulnbp St
1001	Nfvrnb	Oydaibwg	+94-121-2522	nfvrnb.oydaibwg@example.com	Mar 4, 1994	Germany	Cologne	50667	121 Oydaibwg St
1002	Jbdfmd	Jbdfmdhvp	+70-120-3668	jbdfmd.jbdfmdhvp@example.com	Sep 27, 2001	Germany	Munich	80331	412 Jbdfmdhvp St
1003	Uycig	Sfbdymtz	+58-123-6968	uycig.sfbdymtz@example.com	Jan 20, 1981	Germany	Stuttgart	70173	735 Sfbdymtz St
1004	Yjqurq	Ojzvgq	+77-944-2340	yjqurq.ojzvgq@example.com	Jul 27, 1954	Germany	Munich	80331	685 Ojzvgq St
1005	Mnlqzu	Glofegvik	+54-801-2627	mnlqzu.glofegvik@example.com	Nov 15, 1962	Portugal	Punchal	9000-001	8 Glofegvik St
1006	Qkumun	Culmum	+38-196-4560	rhinun.culmum@example.com	Mar 7, 1980	United States	New York	10001	567 Culmum St

The output window shows the execution of the INSERT INTO command:

#	Time	Action	Message	Duration / Fetch
4995	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (1, 'Zeus', 'Gamble', '1-282-581-0551', 'interdum.enim@protonmail.edu', 'Nov 17, 1985', 'United States', 'New York', '10001', '348-7818 Sagittis St.')	1 row(s) affected	0.000 sec
4996	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (10, 'Robert', 'Mccarthy', '(324) 746-6771', 'fermentum@protonmail.com', 'Apr 30, 1984', 'United States', 'San Jose', '95101', 'P.O. Box 773')	1 row(s) affected	0.000 sec
4997	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (100, 'Melodie', 'Mclean', '1-677-221-7152', 'risus.varius@google.ca', 'Sep 15, 1989', 'United States', 'San Jose', '95101', 'Ap #644-8492 Sagittis St.')	1 row(s) affected	0.000 sec
4998	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (1000, 'Amikrv', 'Qbulnbp', '+48-258-9936', 'amikrv.qbulnbp@example.com', 'May 17, 1970', 'Germany', 'Stuttgart', '70173', '215 Qbulnbp St')	1 row(s) affected	0.000 sec
4999	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (1001, 'Nfvrnb', 'Oydaibwg', '+94-121-2522', 'nfvrnb.oydaibwg@example.com', 'Mar 4, 1994', 'Germany', 'Cologne', '50667', '121 Oydaibwg St')	1 row(s) affected	0.000 sec
5000	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (1002, 'Jbdfmd', 'Jbdfmdhvp', '+70-120-3668', 'jbdfmd.jbdfmdhvp@example.com', 'Sep 27, 2001', 'Germany', 'Munich', '80331', '412 Jbdfmdhvp St')	1 row(s) affected	0.000 sec
5001	11:50:25	INSERT INTO user (id, name, surname, phone, email, birth_date, country, city, postal_code, address) VALUES (1003, 'Uycig', 'Sfbdymtz', '+58-123-6968', 'uycig.sfbdymtz@example.com', 'Jan 20, 1981', 'Germany', 'Stuttgart', '70173', '735 Sfbdymtz St')	1 row(s) affected	0.016 sec
5002	11:54:00	SELECT * FROM user	5000 row(s) returned	0.000 sec / 0.016 sec

Below the output window, a table of data is displayed:

id	name	surname	phone	email	birth_date	country	city	postal_code	address
1	Zeus	Gamble	1-282-581-0551	interdum.enim@protonmail.edu	Nov 17, 1985	United States	New York	10001	348-7818 Sagittis St.
10	Robert	Mccarthy	(324) 746-6771	fermentum@protonmail.com	Apr 30, 1984	United States	San Jose	95101	P.O. Box 773
100	Melodie	Mclean	1-677-221-7152	risus.varius@google.ca	Sep 15, 1989	United States	San Jose	95101	Ap #644-8492 Sagittis St.
1000	Amikrv	Qbulnbp	+48-258-9936	amikrv.qbulnbp@example.com	May 17, 1970	Germany	Stuttgart	70173	215 Qbulnbp St
1001	Nfvrnb	Oydaibwg	+94-121-2522	nfvrnb.oydaibwg@example.com	Mar 4, 1994	Germany	Cologne	50667	121 Oydaibwg St
1002	Jbdfmd	Jbdfmdhvp	+70-120-3668	jbdfmd.jbdfmdhvp@example.com	Sep 27, 2001	Germany	Munich	80331	412 Jbdfmdhvp St
1003	Uycig	Sfbdymtz	+58-123-6968	uycig.sfbdymtz@example.com	Jan 20, 1981	Germany	Stuttgart	70173	735 Sfbdymtz St
1004	Yjqurq	Ojzvgq	+77-944-2340	yjqurq.ojzvgq@example.com	Jul 27, 1954	Germany	Munich	80331	685 Ojzvgq St
1005	Mnlqzu	Glofegvik	+54-801-2627	mnlqzu.glofegvik@example.com	Nov 15, 1962	Portugal	Punchal	9000-001	8 Glofegvik St
1006	Qkumun	Culmum	+38-196-4560	rhinun.culmum@example.com	Mar 7, 1980	United States	New York	10001	567 Culmum St

The output window shows the execution of the RENAME TABLE command:

#	Time	Action	Message	Duration / Fetch
1	11:56:51	RENAME TABLE user TO data_user	0 row(s) affected	0.015 sec

Below the output window, a table of data is displayed:

id	name	surname	phone	email	birth_date	country	city	postal_code	address
1	Zeus	Gamble	1-282-581-0551	interdum.enim@protonmail.edu	Nov 17, 1985	United States	New York	10001	348-7818 Sagittis St.
10	Robert	Mccarthy	(324) 746-6771	fermentum@protonmail.com	Apr 30, 1984	United States	San Jose	95101	P.O. Box 773
100	Melodie	Mclean	1-677-221-7152	risus.varius@google.ca	Sep 15, 1989	United States	San Jose	95101	Ap #644-8492 Sagittis St.
1000	Amikrv	Qbulnbp	+48-258-9936	amikrv.qbulnbp@example.com	May 17, 1970	Germany	Stuttgart	70173	215 Qbulnbp St
1001	Nfvrnb	Oydaibwg	+94-121-2522	nfvrnb.oydaibwg@example.com	Mar 4, 1994	Germany	Cologne	50667	121 Oydaibwg St
1002	Jbdfmd	Jbdfmdhvp	+70-120-3668	jbdfmd.jbdfmdhvp@example.com	Sep 27, 2001	Germany	Munich	80331	412 Jbdfmdhvp St
1003	Uycig	Sfbdymtz	+58-123-6968	uycig.sfbdymtz@example.com	Jan 20, 1981	Germany	Stuttgart	70173	735 Sfbdymtz St
1004	Yjqurq	Ojzvgq	+77-944-2340	yjqurq.ojzvgq@example.com	Jul 27, 1954	Germany	Munich	80331	685 Ojzvgq St
1005	Mnlqzu	Glofegvik	+54-801-2627	mnlqzu.glofegvik@example.com	Nov 15, 1962	Portugal	Punchal	9000-001	8 Glofegvik St
1006	Qkumun	Culmum	+38-196-4560	rhinun.culmum@example.com	Mar 7, 1980	United States	New York	10001	567 Culmum St

The output window shows the execution of the ALTER TABLE command:

#	Time	Action	Message	Duration / Fetch
1	12:09:45	ALTER TABLE data_user MODIFY COLUMN id INT	5000 row(s) affected Records: 5000 Duplicates: 0 Warnings: 0	0.109 sec


```
107
108 • ALTER TABLE credit_card
109   MODIFY COLUMN pin VARCHAR(4);
110
111 • ALTER TABLE credit_card
112   MODIFY COLUMN cvv INT;
113
114 • ALTER TABLE credit_card
115   ADD fecha_actual DATE;
116
117
```

Output

#	Time	Action	Message	Duration / Fetch
1	12:29:19	ALTER TABLE credit_card MODIFY COLUMN pin VARCHAR(4)	5001 row(s) affected Records: 5001 Duplicates: 0 Warnings: 0	0.110 sec
2	12:29:24	ALTER TABLE credit_card MODIFY COLUMN cvv INT	5001 row(s) affected Records: 5001 Duplicates: 0 Warnings: 0	0.140 sec
3	12:29:26	ALTER TABLE credit_card ADD fecha_actual DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.015 sec

```
122
123 • SELECT DISTINCT t.user_id
124   FROM transaction t
125  LEFT JOIN data_user d ON t.user_id = d.id
126  WHERE d.id IS NULL;
127
128 • INSERT INTO data_user (id)
129   VALUES (9999);
130
131 • ALTER TABLE transaction
132   ADD CONSTRAINT fk_transaction_data_user
133   FOREIGN KEY (user_id)
134   REFERENCES data_user(id);
135
```

Output

#	Time	Action	Message	Duration / Fetch
9	13:10:40	SELECT DISTINCT t.user_id FROM transaction t LEFT JOIN data_user d ON t.user_id = d.id WHERE d.id IS NULL	1 row(s) returned	0.078 sec / 0.000 sec
10	13:15:56	SELECT DISTINCT t.user_id FROM transaction t LEFT JOIN data_user d ON t.user_id = d.id WHERE d.id IS NULL	1 row(s) returned	0.094 sec / 0.000 sec
11	13:17:44	INSERT INTO data_user (id) VALUES (9999)	1 row(s) affected	0.000 sec
12	13:18:07	ALTER TABLE transaction ADD CONSTRAINT fk_transaction_data_user FOREIGN KEY (user_id) REFERENCES data_user(id)	100000 row(s) affected Records: 100000 Duplicates: 0 Warnings: 0	1.110 sec

- 1- Creem la taula utilitzant l'arxiu "estructura_dades_user".
- 2- Carreguem a la taula els registres amb l'altre arxiu: "dades_introduir_user"
- 3- Canviem de nom la taula a "data_user", tal i com es mostra al diagrama.
- 4- Modifiquem el datatype de l'id a la taula "data_user", ja que inicialment s'havia creat com a CHAR enlloc de INT i també canviem el nom de la columna "email" a "personal_email".
- 5- Eliminem la columna "website" de la taula company, perquè no es mostra al diagrama de l'enunciat.
He modificat també el datatype de les variables "pin" i "cvv" de la taula credit_card, ja que inicialment les havia creat amb un tipus de camp diferent. A més, afegim una nova columna a credit_card, anomenada "fecha_actual". Si intentem crear la relació entre les taules "data_user" i "transaction", ens apareix un error. Es deu al fet que existeixen transaccions associades a usuaris que no existeixen en la taula d'usuaris. Abans de crear la relació, és necessari corregir-lo.
- 6- D'aquesta manera, ja podem crear la relació entre la taula transaction i data_user, utilitzant la columna user_id de transaction com a Foreign Key i relacionant-la amb la columna id de data_user.

Exercici 2

L'empresa també us demana crear una vista anomenada "InformeTecnico" que contingui la següent informació:

- ID de la transacció
- Nom de l'usuari/ària
- Cognom de l'usuari/ària
- IBAN de la targeta de crèdit usada.
- Nom de la companyia de la transacció realitzada.
- Assegureu-vos d'incloure informació rellevant de les taules que coneixereu i utilitzeu àlies per canviar de nom columnes segons calgui.

Mostra els resultats de la vista, ordena els resultats de forma descendent en funció de la variable ID de transacció.

```
132 * CREATE VIEW InformeTecnico AS
133 SELECT t.id, name AS nom, surname AS cognom, d.country AS país_usuari, iban, amount AS import, declined AS rebutjada, company_name AS nom_companyia
134 FROM transaction t
135 JOIN data_user d ON t.user_id = d.id
136 JOIN credit_card cc ON t.credit_card_id = cc.id
137 JOIN company co ON t.company_id = co.id;
138
139 * SELECT *
140 FROM InformeTecnico
141 ORDER BY t.id DESC;
```

id	nom	cognom	país_usuari	iban	import	rebutjada	nom_companyia
FFFD31D6-9495-47CE-B54A-7D68E1CC274B	Bnrgli	Tprvnmrc	United Kingdom	XX794814451211289182490922	74.54	0	Turpio Company
FFFCF76D-ECF0-4985-A2D0-82A7B75998FC	Dflgd	Vlqcdl	Netherlands	XX636251701647892036676034	148.91	0	Amet Nulla Donec Corporation
FFFC9E8D-27C7-4ADE-98F2-7533EF4DF126	Securp	Faofvcfy	Sweden	XX162677143304223631437567	234.22	0	Nunc Interdum Incorporated
FFFB270D-F53A-4D5D-9666-E5307C53CC84	Ggzpqa	Uirzjuh	Portugal	XX395114267082019952567052	349.13	0	Viverra Donec Foundation
FFF9E3CE-234E-408C-A8EF-F9CAD577224A	Yshmq	Zpjsleed	Germany	XX8845462156537570367941	247.39	0	Conwallis In Incorporated
FFF9E178-6CD2-4DF9-998D-49AE068809B1	Jevepx	Xwiczvnm	Netherlands	XX321405515711654384711481	438.13	0	Mus Aenean Eget Foundation
FFF867C9-1785-4B1F-AFD9-F8023AAA449E	Fqlngd	Lvhfqyvi	United Kingdom	XX278446342832680979729426	448.63	0	Cras Vehicula Aliquet Industries
FFF7042D-18C6-4DD0-823C-4D90A4AC8F26	Njoraa	Esgsquli	Portugal	XX405009272572550082027209	163.35	0	Placerat LLP
FFF660D4-4244-47F6-9210-E5D1DCB990B0	Lopzaj	Itgryfay	United States	XX63376659736627454015125	288.76	0	Pede Cum Ltd
FFF5C660-4441-436D-8D27-E6C538618622	Gmnbnu	Oxdvhkl	United States	XX237820256172646394016483	53.31	0	At Associates
FFF54F54-8439-41F0-8DD2-F733DC1ACAD	Gqcfyy	Mpifhln	Netherlands	XX802723943240147612158718	128.48	0	Enim Condimentum Ltd
FFF42F7D-7A0D-46E2-AF72-5996903F8AA9	Ddiugq	Ycabpnyu	Poland	XX926442301555195974199541	2.12	0	At Pede Corp.
FFF4262D-1968-4A1F-89D7-27843CB097A5	Sjbrvp	Eiqnzdfj	Germany	XX395457232638959102336873	6.93	0	Amet Nulla Donec Corporation
FFF290EB-79D2-497C-8DCE-2EC63FE3E9AD	Wcfzys	Dkktgttd	Spain	XX458989048222230717519935	258.51	0	Integer Mollis Corp.
FFF20FB4-9014-4AC3-8938-E31E7786C49A	Afbmt	Yshvmtgk	Sweden	XX148483552743443735712134	65.25	0	Ac Fermentum Incorporated
FFF205DF-60FD-4B48-8337-EE476513A96C	Gcabnp	Rabbjolg	Canada	XX401515215969396565954528	252.10	0	Pretium Neque Corp.

InformeTecnico 3 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	23:34:22	CREATE VIEW InformeTecnico AS SELECT t.id, name AS nom, surname AS cognom, d.country AS país_usuari...	0 row(s) affected	0.047 sec
2	23:34:25	SELECT * FROM InformeTecnico ORDER BY t.id DESC	100000 row(s) returned	0.594 sec / 0.078 sec