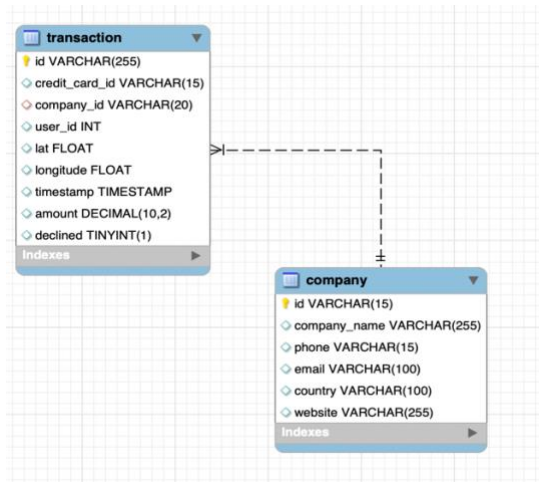


NAME: ANDRE MAZURKIEWITZ

SPRINT 1

- Level 1 Exercise 1



```
-- Creamos la base de datos
CREATE DATABASE IF NOT EXISTS transactions;
USE transactions;

-- Creamos la tabla company
CREATE TABLE IF NOT EXISTS company (
  id VARCHAR(15) PRIMARY KEY,
  company_name VARCHAR(255),
  phone VARCHAR(15),
  email VARCHAR(100),
  country VARCHAR(100),
  website VARCHAR(255)
);

-- Creamos la tabla transaction
CREATE TABLE IF NOT EXISTS transaction (
  id VARCHAR(255) PRIMARY KEY,
  credit_card_id VARCHAR(15), -- <Removed the reference to a table that does not exist
  company_id VARCHAR(20), -- <Removed the reference to a table that does not exist
  user_id INT,
  lat FLOAT,
  longitude FLOAT,
  timestamp TIMESTAMP,
  amount DECIMAL(10, 2),
  declined BOOLEAN,
  FOREIGN KEY (company_id) REFERENCES company(id)
);
```

For this exercise I just removed the reference to credit_card and user_id in the CREATE TABLE transaction query because it was referring to two tables that do not exist. After that I ran the queries in MySQL Workbench and it worked perfect also doing the data insertion.

Another solution for this exercise would be creating the two missing tables, extract the data to insert into the two new tables and then create and insert the data into the transaction table.

- Level 1 Exercise 2

1

•

USE transactions;

2

3

4

5

6

7

8

100%

18:1

Result Grid

Filter Rows: Search

Export:

country

Germany

Australia

United States

New Zealand

Norway

United Kingdom

Italy

Belgium

Sweden

Ireland

Result 64

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
✓	10...	11:06:12	INSERT INTO transaction (id, credit_card_id, company_id, user_i...	1 row(s) affected 0.00068 sec
✓	10...	11:06:12	INSERT INTO transaction (id, credit_card_id, company_id, user_i...	1 row(s) affected 0.0018 sec
✓	10...	11:32:38	USE transactions	0 row(s) affected 0.0078 sec
✓	10...	11:32:38	SELECT DISTINCT c.country FROM transaction AS t LEFT JOIN c...	15 row(s) returned 0.300 sec / 0.00029...

- From how many countries are sales generated? 15

1

•

USE transactions;

2

3

4

5

6

7

8

9

10

11

100%

1:11

Result Grid

Filter Rows: Search

Export:

company_id

company_name

amount

b-2438

Nunc Ac PC

876.66

Result 65

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
✓	10...	11:32:38	USE transactions	0 row(s) affected 0.0078 sec
✓	10...	11:32:38	SELECT DISTINCT c.country FROM transaction AS t LEFT JOIN c...	15 row(s) returned 0.300 sec / 0.00029...
✓	10...	11:37:16	USE transactions	0 row(s) affected 0.0019 sec
✓	10...	11:37:16	SELECT t.company_id, c.company_name, t.amount FROM transa...	1 row(s) returned 0.365 sec / 0.00010...

• Level 1 Exercise 3

```

1 • USE transactions;
2
3 -- LEVEL 1
4 -- EXERCISE 3
5 • SELECT *
6   FROM transaction
7   WHERE company_id IN (
8     SELECT id
9     FROM company
10    WHERE country = 'Germany');
11

```

100% 32:10

Result Grid

id	credit_card...	company_id	user_id	lat	longitude	timestamp	amount	declined
00201A11-2E62-44C4-941D-198FC8DB77F0	CcU-3512	b-2222	193	55.5704	-3.65129	2021-01-22 23:44:27	453.04	0
00235618-0A5C-4D49-9DCB-B3A9406D8923	CcS-8137	b-2222	3556	59.8421	18.729	2020-09-09 15:43:19	263.14	0
005A5A7B-1F1A-4B6C-9B15-1625A78C9C38	CcS-8998	b-2222	4417	41.1591	-8.63905	2024-05-15 09:10:11	442.01	0
00687139-48B2-4FFA-8E73-B20376F04AB4	CcS-4870	b-2222	289	51.1966	10.4669	2019-03-09 19:37:49	524.84	0
0074F4DD-32F1-4827-8758-55896314623A	CcS-8081	b-2222	3500	39.7016	-8.50325	2016-12-26 23:06:57	491.90	0
00AAB9CD-39D6-4DCB-8A1D-13BE73DC90A9	CcS-6797	b-2222	2216	55.7652	-3.76245	2021-04-25 03:06:59	167.15	0

transaction 66

Apply

Action Output

	Time	Action	Response	Duration / Fetch Time
10...	11:37:16	USE transactions	0 row(s) affected	0.0019 sec
10...	11:37:16	SELECT t.company_id, c.company_name, t.amount FROM transa...	1 row(s) returned	0.365 sec / 0.000010...
10...	11:39:19	USE transactions	0 row(s) affected	0.00077 sec
10...	11:39:19	SELECT * FROM transaction WHERE company_id IN (SELEC...	13291 row(s) returned	0.036 sec / 0.102 sec

```

1 • USE transactions;
2
3 -- LEVEL 1
4 -- EXERCISE 3
5 • SELECT company_name
6   FROM company
7   WHERE id IN (
8     SELECT company_id
9     FROM transaction
10    WHERE amount > (
11      SELECT AVG(amount)
12      FROM transaction));
13

```

100% 28:12

Result Grid

company_name
Fusce Corp.
Convallis In Incorporated
Ante Iaculis Nec Foundation
Donec Ltd
Sed Nunc Ltd
Amet Nulla Donec Corporation

company 67

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
10...	11:39:19	USE transactions	0 row(s) affected	0.00077 sec
10...	11:39:19	SELECT * FROM transaction WHERE company_id IN (SELEC...	13291 row(s) returned	0.036 sec / 0.102 sec
10...	11:39:50	USE transactions	0 row(s) affected	0.00034 sec
10...	11:39:50	SELECT company_name FROM company WHERE id IN (SELE...	100 row(s) returned	0.119 sec / 0.000019...

```

1 • USE transactions;
2
3 -- LEVEL 1
4 -- EXERCISE 3
5 • SELECT id, company_name
6   FROM company
7   WHERE id IN (
8     SELECT company_id
9     FROM transaction);
10

```

100% 23:9

Result Grid

id	company_name
b-2230	Fusce Corp.
b-2234	Convallis In Incorporated
b-2238	Ante Iaculis Nec Foundation
b-2242	Donec Ltd
b-2246	Sed Nunc Ltd
b-2250	Amet Nulla Donec Corporation

company 68

Apply

Action Output

	Time	Action	Response	Duration / Fetch Time
10...	11:39:50	USE transactions	0 row(s) affected	0.00034 sec
10...	11:39:50	SELECT company_name FROM company WHERE id IN (SELE...	100 row(s) returned	0.119 sec / 0.000019...
10...	11:40:18	USE transactions	0 row(s) affected	0.00026 sec
10...	11:40:18	SELECT id, company_name FROM company WHERE id IN (S...	100 row(s) returned	0.0087 sec / 0.00006...

- Level 2 Exercise 1

100% 4:4 Don't Limit

```

1 • USE transactions;
2
3 -- LEVEL 2
4 -- EXERCISE 1
5
6 • SELECT DATE(timestamp), SUM(amount) as total
7 FROM transaction
8 GROUP BY DATE(timestamp)
9 ORDER BY total DESC
10 LIMIT 5;

```

Result Grid

DATE(timestamp)	total
2022-12-13	14337.44
2019-11-18	13591.32
2023-02-20	13332.59
2017-12-20	13318.43
2019-03-18	12680.95

Result 69

Action Output

	Time	Action	Response	Duration / Fetch Time
10...	11:40:18	USE transactions	0 row(s) affected	0.00026 sec
10...	11:40:18	SELECT id, company_name FROM company WHERE id IN (S...	100 row(s) returned	0.0087 sec / 0.00006...
10...	11:43:12	USE transactions	0 row(s) affected	0.00087 sec
10...	11:43:12	SELECT DATE(timestamp), SUM(amount) as total FROM transac...	5 row(s) returned	0.149 sec / 0.000010...

- Level 2 Exercise 2

100% 20:10 Don't Limit

```

1 • USE transactions;
2
3 -- LEVEL 2
4 -- EXERCISE 2
5
6 • SELECT AVG(t.amount), c.country
7 FROM transaction as t
8 LEFT JOIN company as c
9 ON t.company_id = c.id
10 GROUP BY c.country;

```

Result Grid

AVG(t.amount)	country
258.436128	Netherlands
257.437949	Sweden
260.644761	Ireland
264.977877	United States
261.153042	Belgium
257.431229	Canada

Result 70

Action Output

	Time	Action	Response	Duration / Fetch Time
10...	11:43:12	USE transactions	0 row(s) affected	0.00087 sec
10...	11:43:12	SELECT DATE(timestamp), SUM(amount) as total FROM transac...	5 row(s) returned	0.149 sec / 0.000010...
10...	11:44:18	USE transactions	0 row(s) affected	0.00036 sec
10...	11:44:18	SELECT AVG(t.amount), c.country FROM transaction as t LEFT J...	15 row(s) returned	0.442 sec / 0.000015...

- Level 3 Exercise 3

1 • USE transactions;
2
3 -- LEVEL 2
4 -- EXERCISE 3
5
6 • SELECT *
7 FROM transaction AS t
8 LEFT JOIN company AS c
9 ON t.company_id = c.id
10 WHERE c.country = (
11 SELECT country FROM company WHERE company_name = 'Non Institute')

100% 4:4

Result Grid Filter Rows: Search Export: Fetch rows: Read Only

id	credit_card...	company_id	user_id	lat	longitude	timestamp	amount	declined	id
01F075B1-D7AE-4D02-AAD9-5FFD72A43F3C	CcS-8700	b-2246	4119	55.856	-3.15783	2018-01-27 13:44:36	103.73	0	b-2246
023FFCE8-E618-4938-BF56-C8DF80540ADD	CcS-7816	b-2246	3235	46.3568	1.82755	2016-12-19 11:53:45	219.28	0	b-2246
02683BEB-EF91-4564-957B-D6F1662AB7C5	CcS-9471	b-2246	4890	42.1332	12.396	2017-01-10 21:09:29	326.87	0	b-2246
02C2F29E-CEF2-4C1E-A594-F476E8F279C0	CcS-9082	b-2246	4501	39.4662	-0.373246	2020-05-24 01:17:29	155.72	0	b-2246
02F468DC-426C-47C2-8B0A-D8B25B7A81AF	CcS-6913	b-2246	2332	52.175	19.3508	2023-03-17 16:36:27	305.35	0	b-2246
0306BE3B-817B-4A49-934E-0E439291A104	CcS-5302	b-2246	721	51.9233	18.926	2021-12-02 23:06:02	339.58	0	b-2246

Result 71

Action Output

	Time	Action	Response	Duration / Fetch Time	
✓	10...	11:44:18	USE transactions	0 row(s) affected	0.00036 sec
✓	10...	11:44:18	SELECT AVG(t.amount), c.country FROM transaction as t LEFT J...	15 row(s) returned	0.442 sec / 0.000015...
✓	10...	11:45:32	USE transactions	0 row(s) affected	0.0012 sec
✓	10...	11:45:32	SELECT * FROM transaction AS t LEFT JOIN company AS c ON t...	13776 row(s) returned	0.0039 sec / 0.137 sec

1 • USE transactions;
2
3 -- LEVEL 2
4 -- EXERCISE 3
5 • SELECT *
6 FROM transaction
7 WHERE company_id IN (
8 SELECT DISTINCT id
9 FROM company
10 WHERE country = (
11 SELECT country FROM company WHERE company_name = 'Non Institute'))

100% 67:11

Result Grid Filter Rows: Search Edit: Export/Import: Fetch rows: Apply

id	credit_card...	company_id	user_id	lat	longitude	timestamp	amount	declined	id
01F075B1-D7AE-4D02-AAD9-5FFD72A43F3C	CcS-8700	b-2246	4119	55.856	-3.15783	2018-01-27 13:44:36	103.73	0	b-2246
023FFCE8-E618-4938-BF56-C8DF80540ADD	CcS-7816	b-2246	3235	46.3568	1.82755	2016-12-19 11:53:45	219.28	0	b-2246
02683BEB-EF91-4564-957B-D6F1662AB7C5	CcS-9471	b-2246	4890	42.1332	12.396	2017-01-10 21:09:29	326.87	0	b-2246
02C2F29E-CEF2-4C1E-A594-F476E8F279C0	CcS-9082	b-2246	4501	39.4662	-0.373246	2020-05-24 01:17:29	155.72	0	b-2246
02F468DC-426C-47C2-8B0A-D8B25B7A81AF	CcS-6913	b-2246	2332	52.175	19.3508	2023-03-17 16:36:27	305.35	0	b-2246
0306BE3B-817B-4A49-934E-0E439291A104	CcS-5302	b-2246	721	51.9233	18.926	2021-12-02 23:06:02	339.58	0	b-2246

transaction 72

Action Output

	Time	Action	Response	Duration / Fetch Time	
✓	10...	11:45:32	USE transactions	0 row(s) affected	0.0012 sec
✓	10...	11:45:32	SELECT * FROM transaction AS t LEFT JOIN company AS c ON t...	13776 row(s) returned	0.0039 sec / 0.137 sec
✓	10...	11:46:29	USE transactions	0 row(s) affected	0.00030 sec
✓	10...	11:46:29	SELECT * FROM transaction WHERE company_id IN (SELECT DI...	13776 row(s) returned	0.0015 sec / 0.081 sec

• Level 3 Exercise 1

1 • **USE** transactions;
 2
 3 -- LEVEL 3
 4 -- EXERCISE 1
 5
 6 • **SELECT** c.company_name, c.phone, c.country, DATE(t.timestamp), t.amount
 7 **FROM** transaction AS t
 8 **LEFT JOIN** company AS c
 9 **ON** t.company_id = c.id
 10 **WHERE** (t.amount > 350 **AND** t.amount < 400)
 11 **AND** (DATE(t.timestamp) = '2015-04-29' **OR** DATE(t.timestamp) = '2018-07-20' **OR** DATE(t.timestamp) = '2024-03-13')
 12 **ORDER BY** t.amount **DESC**

100% 23:12

Result Grid Filter Rows: Search Export:

company_name	phone	country	DATE(t.timestamp)	amount
Aliquam PC	01 45 73 52 16	Germany	2024-03-13	399.84
Auctor Mauris Vel LLP	08 09 28 74 14	United States	2018-07-20	399.51
At Pede Corp.	06 14 48 33 15	Italy	2015-04-29	390.69
Aliquam PC	01 45 73 52 16	Germany	2024-03-13	388.29
Orci Adipiscing Limited	03 18 00 77 81	United Kingdom	2018-07-20	373.71
Fringilla LLC	08 29 15 93 57	New Zealand	2015-04-29	367.62

Result 73

Action Output

	Time	Action	Response	Duration / Fetch Time
✓ 10...	11:46:29	USE transactions	0 row(s) affected	0.00030 sec
✓ 10...	11:46:29	SELECT * FROM transaction WHERE company_id IN (SELECT DI...	13776 row(s) returned	0.0015 sec / 0.081 sec
✓ 10...	11:47:23	USE transactions	0 row(s) affected	0.00024 sec
✓ 10...	11:47:23	SELECT c.company_name, c.phone, c.country, DATE(t.timestamp...	8 row(s) returned	0.070 sec / 0.000011...

• Level 3 Exercise 2

1 • **USE** transactions;
 2
 3 -- LEVEL 3
 4 -- EXERCISE 2
 5
 6 • **SELECT** c.company_name, COUNT(*) as num_transaction_company
 7 **FROM** transaction AS t
 8 **LEFT JOIN** company AS c
 9 **ON** t.company_id = c.id
 10 **GROUP BY** c.company_name
 11 **HAVING** num_transaction_company > 400
 12 **ORDER BY** num_transaction_company **DESC**

100% 4:3

Result Grid Filter Rows: Search Export:

company_name	num_transaction_comp...
Donec Fringilla PC	1593
Mauris Institute	1586
Rutrum Non Inc.	1585
Aliquet Vel Vulputate Incorporated	1583
Aliquam PC	1576
Orci Adipiscing Limited	1567

Result 74

Action Output

	Time	Action	Response	Duration / Fetch Time
✓ 10...	11:47:23	USE transactions	0 row(s) affected	0.00024 sec
✓ 10...	11:47:23	SELECT c.company_name, c.phone, c.country, DATE(t.timestamp...	8 row(s) returned	0.070 sec / 0.000011...
✓ 10...	11:49:00	USE transactions	0 row(s) affected	0.00036 sec
✓ 10...	11:49:00	SELECT c.company_name, COUNT(*) as num_transaction_com...	97 row(s) returned	0.143 sec / 0.000025...

Github URL

https://github.com/andre-mazus/DataAnalysisSpecialization/blob/main/sprint_1_exercises.sql