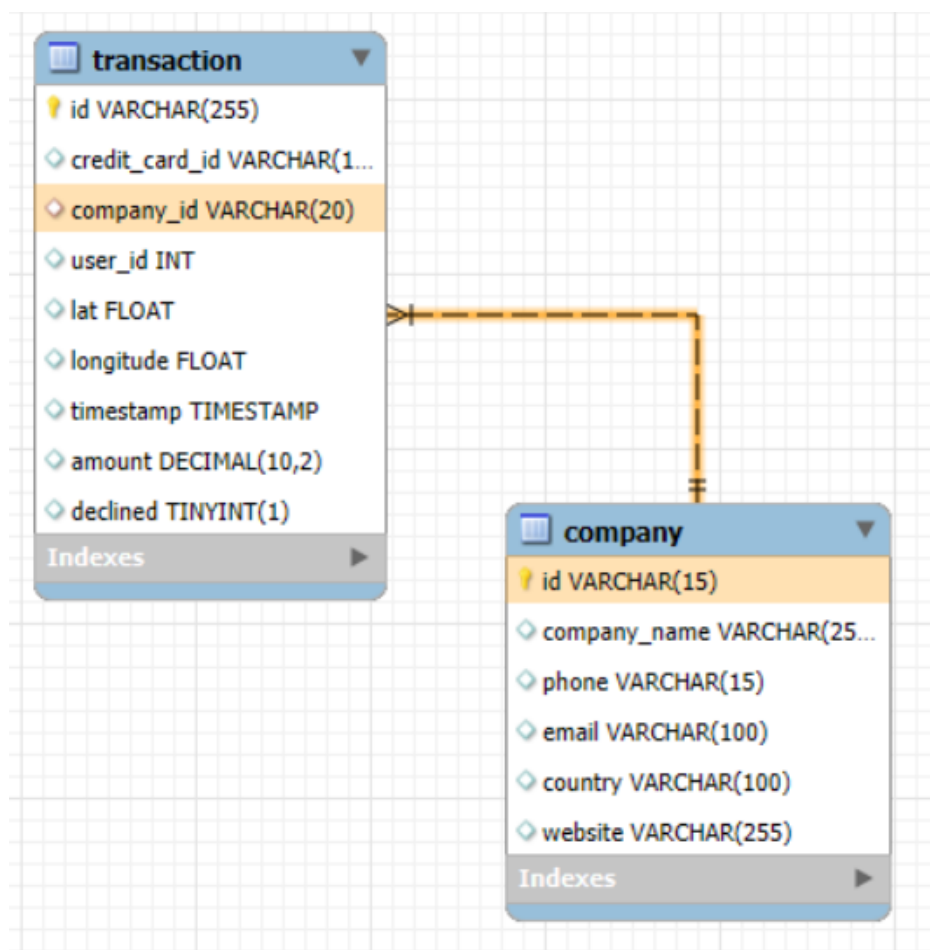


Nivel 1 - Ejercicio 1

A partir de los documentos adjuntos (estructura_datos y datos_introducir), importa las dos tablas. Muestra las principales características del esquema creado y explica las diferentes tablas y variables que existen. Asegúrate de incluir un diagrama que ilustre la relación entre las distintas tablas y variables.

El esquema de la base de datos consta de dos tablas: company (principal) y transaction (secundaria). Company contiene una clave primaria: **id**, transaction contiene una clave primaria **id** y una foránea: **company_id**, mediante la cual se vincula con la clave primaria **id** de company. La relación entre ellas es 1 a muchos (1:N) ya que pueden existir múltiples transacciones por cada compañía.



Nivel 1 - Ejercicio 2

- Listado de los países que están haciendo compras.

```
2 • SELECT DISTINCT company.country
3     From company
4     RIGHT JOIN transaction ON company.id=transaction.company_id
5     ORDER BY country;
```

country
Australia
Belgium
Canada
China
France
Germany
Ireland
Italy
Netherlands
New Zealand
Norway
Spain
Sweden
United Kingdom
United States

- Desde cuántos países se realizan las compras.

```
1 • SELECT COUNT(DISTINCT company.country) AS Numberofcountries
2     From company
3     RIGHT JOIN transaction ON company.id=transaction.company_id
4     ORDER BY country;
5
```

Numberofcountries
15

- Identifica a la compañía con la mayor media de ventas.

```
12 • SELECT company.company_name, AVG(transaction.amount) AS AVGTransactionamount
13     From company
14     RIGHT JOIN transaction ON company.id=transaction.company_id
15     WHERE declined = 0
16     GROUP BY company.company_name
17     ORDER BY AVGTransactionamount DESC
18     LIMIT 1;
```

company_name	AVGTransactionamount
Eget Ipsum Ltd	481.860000

Nivel 1 - Ejercicio 3

Utilizando sólo subconsultas (sin utilizar JOIN):

- Muestra todas las transacciones realizadas por empresas de Alemania.

```
21 • SELECT *
22 FROM transaction
23 WHERE company_id IN(SELECT id FROM company WHERE country = 'Germany');
24
```

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

	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
▶	108B1D1D-5B23-A76C-55EF-C568E49A05DD	CcU-2938	b-2222	275	83.7839	-178.86	2021-07-07 17:43:16	293.57	0
	EA2C3281-C9C1-A387-44F8-729FB4B51C76	CcU-2938	b-2222	275	20.2004	-116.84	2021-05-09 10:25:08	119.36	1
	0DD2E608-5C9E-D1B3-4999-B99F43AD735A	CcU-2959	b-2234	275	9.68811	130.282	2021-04-17 05:30:17	252.47	1
	AB069F53-965E-A2A8-CE06-CA8C4FD92501	CcU-2959	b-2234	275	1.64819	-158.007	2021-04-15 13:37:18	60.99	0
	0466A42E-47CF-8D24-FD01-C0B689713128	CcU-4219	b-2302	170	-43.9695	-117.525	2021-07-26 07:29:18	49.53	0
	0A476ED9-0C13-1962-F87B-D3563924B539	CcU-4359	b-2302	221	-56.4901	114.801	2022-02-26 20:33:54	430.49	0
	122DC333-E19F-D629-DCD8-9C54CF1EBB9A	CcU-4366	b-2302	221	29.6372	-166.173	2021-06-09 06:04:14	172.01	0
	135267BA-2E7D-957C-C42C-6450A2B3ED54	CcU-4520	b-2302	210	20.6724	14.9732	2021-12-29 20:38:23	17.97	0
	14CAE5B5-8FB1-3E4A-4C85-0EA4167534F4	CcU-4849	b-2302	189	-53.6202	93.0533	2021-12-31 00:29:42	388.04	0
	158A3ACB-541C-DBCC-65BD-6373CC67BF1C	CcU-4849	b-2302	183	42.5424	-170.347	2022-03-08 05:02:19	240.29	0
	162C7E78-2B6B-7971-A1E4-D2124E732451	CcU-4527	b-2302	210	-69.1381	58.0017	2021-04-11 05:59:18	231.26	0
	1717FD6B-ADAD-7082-A748-9112BE892CCC	CcU-4219	b-2302	172	69.4892	-138.411	2021-12-29 16:18:54	249.91	0
	1753A288-9FC1-52E6-5C39-A1FFB97B0D3A	CcU-4345	b-2302	222	57.9422	-114.729	2021-08-17 05:32:08	497.84	0
	186F53DE-DE27-B1FE-B82F-15B61CEB7726	CcU-4310	b-2302	225	-72.7448	36.6211	2021-12-20 13:13:45	238.16	0
	18C4E2DD-1E4C-F35E-2198-C660BD81DC25	CcU-4849	b-2302	177	68.0133	91.4839	2021-09-24 18:55:25	237.04	0
	18CCBA7C-ABC1-813D-FAF3-4BAB97429368	CcU-4219	b-2302	173	51.3881	-156.371	2021-06-21 03:21:34	58.16	0
	19E1EC3E-2119-1EFD-8AAE-5930D4A4E63F	CcU-4219	b-2302	154	-56.0839	116.987	2021-07-06 21:40:15	29.63	0
	1B117D49-936C-BA6C-E94B-30C3293AA239	CcU-4219	b-2302	163	-75.099	109.034	2021-05-09 23:56:04	371.35	0
	1B521826-5860-5A86-5364-6EB6A5CC21B7	CcU-4226	b-2302	231	-53.4613	49.1484	2021-08-14 02:39:50	476.33	0

transaction 29 x

Output

Action Output

#	Time	Action	Message
✓ 97	13:36:53	SELECT COUNT(DISTINCT company.country) AS Numberofcountries From company RIGHT JOIN transaction...	1 row(s) returned
✓ 98	13:37:34	SELECT * FROM transaction WHERE company_id IN(SELECT id FROM company WHERE country = 'Gema...	118 row(s) returned

Nivel 2 - Ejercicio 1

Identifica los cinco días que se generó la mayor cantidad de ingresos en la empresa por ventas. Muestra la fecha de cada transacción junto con el total de las ventas.

```
40 • SELECT DATE(timestamp), SUM(amount) AS amount
41 FROM transaction
42 GROUP BY DATE(timestamp)
43 ORDER BY amount DESC
44 LIMIT 5;
45
```

	DATE(timestamp)	amount
▶	2021-03-29	1564.87
	2021-12-20	1532.36
	2021-06-15	1469.90
	2021-05-09	1463.73
	2021-06-21	1443.11

Nivel 2 - Ejercicio 2

¿Cuál es la media de ventas por país? Presenta los resultados ordenados de mayor a menor medio.

```
48 • SELECT company.country, AVG(transaction.amount) AS AVGTransactionamount
49 FROM company
50 JOIN transaction ON company.id=transaction.company_id
51 WHERE declined = 0
52 GROUP BY company.country
53 ORDER BY AVGTransactionamount DESC;
54
```

	country	AVGTransactionamount
▶	United States	287.531111
	Ireland	285.825357
	Sweden	276.668382
	United Kingdom	271.767527
	Canada	261.941930
	Belgium	255.217500
	Norway	251.114918
	Italy	243.342222
	Germany	242.239189
	Netherlands	240.940000
	China	222.240000
	Australia	177.331667
	France	169.410000
	New Zealand	167.061667
	Spain	26.220000

Result 36 ×

Output

Action Output

#	Time	Action	Message
✓ 106	13:46:36	SELECT DATE(timestamp), SUM(amount) AS amount FROM transaction GROUP BY DATE(timestamp) ORDE...	5 row(s) returned
✓ 107	13:47:58	SELECT company.country, AVG(transaction.amount) AS AVGTransactionamount From company JOIN transac...	15 row(s) returned

Nivel 2 - Ejercicio 3

En tu empresa, se plantea un nuevo proyecto para lanzar algunas campañas publicitarias para hacer competencia a la compañía “Non Institute”. Para ello, te piden la lista de todas las transacciones realizadas por empresas que están ubicadas en el mismo país que esta compañía.

Muestra el listado aplicando JOIN y subconsultas.

```
57 • SELECT *
58 FROM company
59 JOIN transaction ON company.id=transaction.company_id
60 WHERE country IN(SELECT country FROM company WHERE company_name='Non Institute') AND company_name <> 'Non Institute';
61
```

id	company_name	phone	email	country	website	id	credit_card_id	company_id	user_id	lat
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnn.com/one	2B928E1C-EC14-A760-0A75-871477649D6A	CcU-2980	b-2246	275	-41.0496
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnn.com/one	ACD2011A-A2B1-C365-41E1-2AB00C65147A	CcU-2980	b-2246	275	-54.4792
b-2310	Non Magna LLC	06 71 73 13 17	nisl.quisque.fringilla@hotmail.ca	United Kingdom	https://whatsapp.com/site	4334349E-CEB0-3D68-A4D4-FEB7718A1ACE	CcU-3092	b-2310	275	-20.4859
b-2310	Non Magna LLC	06 71 73 13 17	nisl.quisque.fringilla@hotmail.ca	United Kingdom	https://whatsapp.com/site	BC2B9A38-77B4-28CD-1FE8-14DED863E773	CcU-3092	b-2310	275	-78.0295
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	147983D2-87BA-C7BB-4CE3-8D7C2DE85ABB	CcU-2994	b-2326	133	66.2672
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	152598C2-029D-D684-4B66-91EDF393EBFF	CcU-2994	b-2326	126	-67.0189
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	1B636858-A2E8-7C69-D9C9-C5453SDAFD3B	CcU-2994	b-2326	131	70.2543
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	20418DE5-B804-8E98-BD7A-A95C1BFD8F5C	CcU-2994	b-2326	126	-79.1145
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	239B8576-6C0E-137A-C2F6-3180A188A2D3	CcU-2994	b-2326	126	23.6174
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	267C4A86-7BA7-1C5E-0718-2824983C87D0	CcU-2994	b-2326	126	-17.5259
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3142C93E-83B7-49E4-EE2D-29CA834B198D	CcU-2994	b-2326	126	-67.8476
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3578688E-7B1D-B887-3BC7-20B8673AA31E	CcU-2994	b-2326	126	87.0665
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	360C7814-F7AF-B43A-0946-AB38D2683C86	CcU-2994	b-2326	116	-7.93005
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	391E1CFD-D653-E45B-A729-F2EB93247B58	CcU-2994	b-2326	118	60.5512
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3C4D7C2A-A402-B941-625A-D64CA53526E8	CcU-2994	b-2326	117	23.1627
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3ED634C2-01CA-D6E9-2D8D-24B53A7912F7	CcU-4219	b-2326	137	69.0549
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3FEC4131-98ED-2EA6-1776-82674C80DDB8	CcU-2994	b-2326	126	-7.28469
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	41C13F08-471E-D475-3E14-760DF37F9842	CcU-4219	b-2326	138	-51.7289

Result 38 x

Output

Action Output

#	Time	Action	Message	Duration /
108	13:50:26	SELECT * From company JOIN transaction ON company.id=transaction.company_id WHERE country IN(SEL...	70 row(s) returned	0.000 sec
109	13:51:19	SELECT * From company JOIN transaction ON company.id=transaction.company_id WHERE country IN(SEL...	70 row(s) returned	0.000 sec

Muestra el listado aplicando solo subconsultas.

```
62 • SELECT *
63 FROM transaction
64 WHERE company_id IN (SELECT id FROM company WHERE country IN (SELECT country FROM company WHERE company_name='Non Institute'));
```

id	company_name	phone	email	country	website	id	credit_card_id	company_id	user_id	lat
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnn.com/one	2B928E1C-EC14-A760-0A75-871477649D6A	CcU-2980	b-2246	275	-41.0496
b-2246	Sed Nunc Ltd	02 62 64 73 48	nibh@yahoo.org	United Kingdom	https://cnn.com/one	ACD2011A-A2B1-C365-41E1-2AB00C65147A	CcU-2980	b-2246	275	-54.4792
b-2310	Non Magna LLC	06 71 73 13 17	nisl.quisque.fringilla@hotmail.ca	United Kingdom	https://whatsapp.com/site	4334349E-CEB0-3D68-A4D4-FEB7718A1ACE	CcU-3092	b-2310	275	-20.4859
b-2310	Non Magna LLC	06 71 73 13 17	nisl.quisque.fringilla@hotmail.ca	United Kingdom	https://whatsapp.com/site	BC2B9A38-77B4-28CD-1FE8-14DED863E773	CcU-3092	b-2310	275	-78.0295
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	147983D2-87BA-C7BB-4CE3-8D7C2DE85ABB	CcU-2994	b-2326	133	66.2672
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	152598C2-029D-D684-4B66-91EDF393EBFF	CcU-2994	b-2326	126	-67.0189
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	1B636858-A2E8-7C69-D9C9-C5453SDAFD3B	CcU-2994	b-2326	131	70.2543
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	20418DE5-B804-8E98-BD7A-A95C1BFD8F5C	CcU-2994	b-2326	126	-79.1145
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	239B8576-6C0E-137A-C2F6-3180A188A2D3	CcU-2994	b-2326	126	23.6174
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	267C4A86-7BA7-1C5E-0718-2824983C87D0	CcU-2994	b-2326	126	-17.5259
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3142C93E-83B7-49E4-EE2D-29CA834B198D	CcU-2994	b-2326	126	-67.8476
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3578688E-7B1D-B887-3BC7-20B8673AA31E	CcU-2994	b-2326	126	87.0665
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	360C7814-F7AF-B43A-0946-AB38D2683C86	CcU-2994	b-2326	116	-7.93005
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	391E1CFD-D653-E45B-A729-F2EB93247B58	CcU-2994	b-2326	118	60.5512
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3C4D7C2A-A402-B941-625A-D64CA53526E8	CcU-2994	b-2326	117	23.1627
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3ED634C2-01CA-D6E9-2D8D-24B53A7912F7	CcU-4219	b-2326	137	69.0549
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	3FEC4131-98ED-2EA6-1776-82674C80DDB8	CcU-2994	b-2326	126	-7.28469
b-2326	Enim Condimentum Ltd	09 55 51 66 25	imperdiet.non.vestibulum@yahoo.net	United Kingdom	https://cnn.com/group/9	41C13F08-471E-D475-3E14-760DF37F9842	CcU-4219	b-2326	138	-51.7289

Result 38 x

Output

Action Output

#	Time	Action	Message	Duration /
108	13:50:26	SELECT * From company JOIN transaction ON company.id=transaction.company_id WHERE country IN(SEL...	70 row(s) returned	0.000 sec
109	13:51:19	SELECT * From company JOIN transaction ON company.id=transaction.company_id WHERE country IN(SEL...	70 row(s) returned	0.000 sec

Nivel 3 - Ejercicio 1

Presenta el nombre, teléfono, país, fecha y amount, de aquellas empresas que realizaron transacciones con un valor comprendido entre 100 y 200 euros y en alguna de estas fechas: 29 de abril de 2021, 20 de julio de 2021 y 13 de marzo de 2022. Ordena los resultados de mayor a menor cantidad.

```
68 • SELECT company_name, phone, country, DATE(timestamp), amount
69 FROM company
70 JOIN transaction ON company.id=transaction.company_id
71 WHERE amount BETWEEN 100 AND 200 AND DATE(timestamp) IN('2021-04-29', '2021-07-20', '2022-03-13');
```

	company_name	phone	country	DATE(timestamp)	amount
▶	Lorem Eu Incorporated	01 83 66 62 07	Canada	2021-07-20	133.39
	Enim Condimentum Ltd	09 55 51 66 25	United Kingdom	2021-04-29	149.89
	Nunc Interdum Incorporated	05 18 15 48 13	Germany	2022-03-13	164.32
	Nunc Interdum Incorporated	05 18 15 48 13	Germany	2021-04-29	111.51
	Interdum Feugiat Sed Associates	04 88 40 32 52	United Kingdom	2021-07-20	164.86

Nivel 3 - Ejercicio 2

Necesitamos optimizar la asignación de los recursos y dependerá de la capacidad operativa que se requiera, por lo que te piden la información sobre la cantidad de transacciones que realizan las empresas, pero el departamento de recursos humanos es exigente y quiere un listado de las empresas en las que especifiques si tienen más de 4 transacciones o menos.

```
75 • SELECT company_name,
76 CASE
77     WHEN COUNT(amount) > 4 THEN 'TRUE'
78     WHEN COUNT(amount) <= 4 THEN 'FALSE'
79 END AS plus4transactions
80 FROM company
81 JOIN transaction ON company.id=transaction.company_id
82 GROUP BY company_name;
```

	company_name	plus4transactions
▶	Ac Fermentum Incorporated	FALSE
	Magna A Neque Industries	FALSE
	Fusce Corp.	FALSE
	Convallis In Incorporated	FALSE
	Ante Iaculis Nec Foundation	FALSE
	Donec Ltd	FALSE
	Sed Nunc Ltd	FALSE
	Amet Nulla Donec Corporation	FALSE
	Nascetur Ridiculus Mus Inc.	FALSE
	Vestibulum Lorem PC	FALSE
	Gravida Sagittis LLP	FALSE
	Mus Aenean Eget Foundation	FALSE
	Dis Parturient Institute	FALSE
	Sed LLC	FALSE
	Arcu LLP	TRUE
	Pratium Neque Corp	FALSE

Result 40 x

Output

Action Output

#	Time	Action	Message
❌ 111	13:54:38	SELECT company_name, CASE WHEN COUNT(amount) > 4 THEN 'TRUE' WHEN COUNT(amount) =<...	Error Code: 1064. You h
✅ 112	13:54:49	SELECT company_name, CASE WHEN COUNT(amount) > 4 THEN 'TRUE' WHEN COUNT(amount) <=...	100 row(s) returned