

NIVELL 1

Ex1

dades_introduir estructura_dades sprint1 sprint2

```
1 #NIVELL 1
2
3 #Ex1
4 SELECT transaction.*
5 FROM transaction
6 LEFT JOIN company ON company.id = transaction.company_id
7 WHERE country = 'Germany';
```

Result Grid

	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
▶	10881D1D-5B23-4767-55F5-C568E49A03D0	CdJ-2938	b-2222	275	83.7839	-178.86	2021-07-07 17:43:16	293.57	0
	EA2C3281-C9C1-4387-44F8-729F84B51C76	CdJ-2938	b-2222	275	20.2004	-116.84	2021-05-09 10:25:08	119.36	1
	00D2E608-5C9E-D1B3-4999-899F43AD735A	CdJ-2959	b-2234	275	9.68811	130.282	2021-04-17 05:30:17	252.47	1
	AD069F53-965E-A2A8-CE06-CAB84FD92501	CdJ-2959	b-2234	275	1.64819	-158.007	2021-04-15 13:37:18	60.99	0
	0466A42E-47CF-4024-FD01-C08689713128	CdJ-4219	b-2302	170	-43.9695	-117.525	2021-07-26 07:29:18	49.53	0
	04479ED9-9C13-1962-F076-D3563924E539	CdJ-4359	b-2302	221	-56.4901	114.801	2022-02-26 20:53:54	430.49	0
	122D2333-E19F-D529-CC0B-9C54CF1EB89A	CdJ-4366	b-2302	221	29.6372	-156.173	2021-06-09 06:04:14	172.01	0
	1352678A-2E7C-957C-C42E-6450A2B3ED54	CdJ-4530	b-2302	210	20.6724	14.9732	2021-12-29 20:38:23	17.97	0
	14CAE5B5-8F81-3E4A-4C83-0EA4167534F4	CdJ-4849	b-2302	189	-53.6202	93.0533	2021-12-31 00:29:42	388.04	0
	158A34CB-541C-C8CC-658D-637CC678F1C	CdJ-4849	b-2302	183	42.5424	-170.347	2022-03-08 05:02:19	240.29	0
	162C7E78-2668-7971-41E4-D2124E732451	CdJ-4527	b-2302	210	-69.1381	58.0017	2021-04-11 05:59:18	231.26	0
	171706B4-ADAD-7082-A748-91128692CC	CdJ-4219	b-2302	172	69.4892	-138.411	2021-02-29 16:18:54	249.91	0
	1753A289-4FC1-52E6-5C39-41FF878D03A	CdJ-4345	b-2302	222	57.9422	-114.729	2021-08-17 05:32:08	497.84	0
	186F33DE-01E7-81FE-8828-15861CEB7726	CdJ-4310	b-2302	225	-72.7448	36.6211	2021-12-20 13:13:45	238.16	0
	18C4E2DD-1E4C-F15E-2198-C660B081DC25	CdJ-4849	b-2302	177	68.0133	91.4839	2021-09-24 18:55:25	237.04	0
	18C8B47C-ABD1-413D-FAF3-46AB97429368	CdJ-4219	b-2302	173	51.3881	-156.371	2021-06-21 03:21:34	58.16	0
	19C1E3C8-2119-1BFD-8AAE-5930D4A4E63F	CdJ-4219	b-2302	154	-56.0839	116.987	2021-07-06 21:40:15	29.63	0
	1B117D49-938C-6A5C-E946-36C3293A4259	CdJ-4219	b-2302	163	-75.099	109.034	2021-05-09 23:56:04	371.25	0
	1B521835-5860-5A86-5346-4E86A6CC2187	CdJ-4226	b-2302	231	-53.4613	49.1484	2021-08-14 02:39:50	476.33	0
	1C383CC4-8919-7616-6A57-E8D007B78688	CdJ-4415	b-2302	217	81.1737	62.8835	2021-09-27 16:07:34	462.35	0
	2075D12D-6948-7022-578B-33ED49672766	CdJ-4247	b-2302	229	-9.03682	88.9005	2022-02-13 04:07:29	87.44	0
	2418127A6E93C-6DA3-5AC9-88CFD42B702A	CdJ-4849	b-2302	190	-12.1172	-175.322	2021-08-04 04:44:35	487.64	0
	74486416-74F7-7178F-1038B-8C7C734DE177	CdJ-14849	b-17913	114	37.0171	-481.4760	2021-04-24 14:17:36	751.48	0

Result 65 x

Output

#	Time	Action	Message
82	19:38:13	SELECT company_name FROM company LEFT JOIN transaction ON company_id = transaction.company_id WHERE company_id IS NULL	0 row(s) returned
83	19:38:17	SELECT transaction.* FROM transaction, company WHERE transaction.company_id = company.id AND country = (SELECT country FROM company ...	17 row(s) returned
84	19:38:19	SELECT company_name, amount FROM company, transaction WHERE transaction.company_id = company.id AND amount = (SELECT MAX(amount...	1 row(s) returned
85	19:38:27	SELECT AVG(amount), country FROM transaction, company WHERE transaction.company_id = company.id GROUP BY country HAVING AVG(amou...	5 row(s) returned
86	19:38:32	SELECT company_name, COUNT(transaction.id), CASE WHEN COUNT(transaction.id) >= 4 THEN 'TRUE' WHEN COUNT(transaction.id) < 4 TH...	100 row(s) returned
87	19:38:49	SELECT transaction.* FROM transaction LEFT JOIN company ON company_id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company_id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned

Ex2

dades_introduir estructura_dades sprint1 sprint2

```
7 WHERE country = 'Germany';
8
9 #Ex2
10 SELECT DISTINCT(company_name)
11 FROM company
12 JOIN transaction ON company.id = transaction.company_id
13 WHERE amount > (SELECT AVG(amount)
14 FROM transaction);
```

Result Grid

	company_name
▶	Lorem Eui Incorporated
	Non Institute
	Ut Semper Foundation
	Lacus Quisque Associates
	Elit Etiam Lorem Associates
	Nunc Interdum Incorporated
	Magna Incorporated
	Sapient Nunc Pulvinar LLP
	Ac Fermentum Incorporated
	Nunc Sit Incorporated
	Erin Conditum Ltd
	Lorem Ipsum Dolor Corp.
	Tortor Nunc Commodo Com...
	Malesuada PC
	Arco LLP
	Mauris Incorporated
	Aliquet Diam Limited
	Mauris Institute
	Sed Nunc Ltd
	Fringilla LLC
	Turpis Company
	Malesenas Malesuada Prind...

Result 65 x

Output

#	Time	Action	Message
83	19:38:17	SELECT transaction.* FROM transaction, company WHERE transaction.company_id = company.id AND country = (SELECT country FROM company ...	17 row(s) returned
84	19:38:19	SELECT company_name, amount FROM company, transaction WHERE transaction.company_id = company.id AND amount = (SELECT MAX(amount...	1 row(s) returned
85	19:38:27	SELECT AVG(amount), country FROM transaction, company WHERE transaction.company_id = company.id GROUP BY country HAVING AVG(amou...	5 row(s) returned
86	19:38:32	SELECT company_name, COUNT(transaction.id), CASE WHEN COUNT(transaction.id) >= 4 THEN 'TRUE' WHEN COUNT(transaction.id) < 4 TH...	100 row(s) returned
87	19:38:49	SELECT transaction.* FROM transaction LEFT JOIN company ON company_id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company_id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
89	19:39:55	SELECT DISTINCT(company_name) FROM company JOIN transaction ON company_id = transaction.company_id WHERE amount > (SELECT AVG(...	70 row(s) returned

Ex3

dades_introduir estructura_dades sprint1 sprint2

```
13 WHERE amount > (SELECT AVG(amount)
14 FROM transaction);
15
16 #Ex3
17 SELECT transaction.*, company_name
18 FROM company, transaction
19 WHERE company.id = transaction.company_id AND company_name LIKE 'C%';
20
```

Result Grid

	id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined	company_name
	0002E608-5C9E-01B3-4999-899F43AD735A	CCU-2959	b-2234	275	9.68811	130.282	2021-04-17 05:30:17	252.47	1	Convalls In Incorporated
	AB069F53-969E-42A8-CE06-CABC4FD92501	CCU-2959	b-2234	275	1.64819	-158.007	2021-04-15 13:37:18	60.99	0	Convalls In Incorporated
	439F4F6A-57C7-3A59-6038-AD7133887522	CCU-3449	b-2514	268	-13.9867	-104.268	2021-03-18 05:42:48	60.93	0	Cras Consulting
	ED1CFB7D-E626-CE54-57A1-A0367788E5F	CCU-3449	b-2514	268	9.75306	-134.718	2021-11-28 23:27:04	230.41	1	Cras Consulting
	5C3A8A3D-8974-40A6-ABAF-C1F7AA687C94	CCU-3519	b-2554	267	15.1828	165.662	2021-07-23 15:35:14	158.05	1	Cras Vehicula Aliquet Industries
	8C895ADD-5501-249C-24DD-3E4AB7A8F1C5	CCU-3519	b-2554	267	8.59711	-34.6616	2021-10-27 19:43:57	181.87	0	Cras Vehicula Aliquet Industries

Result 67 x

Output

#	Time	Action	Message
84	19:38:19	SELECT company_name, amount FROM company, transaction WHERE transaction.company_id = company.id AND amount > (SELECT MAX(amount) FROM transaction);	1 row(s) returned
85	19:38:27	SELECT AVG(amount), country FROM transaction, company WHERE transaction.company_id = company.id GROUP BY country HAVING AVG(amount) > (SELECT AVG(amount) FROM transaction);	5 row(s) returned
86	19:38:32	SELECT company_name, COUNT(transaction.id), CASE WHEN COUNT(transaction.id) >= 4 THEN 'TRUE' WHEN COUNT(transaction.id) < 4 THEN 'FALSE' FROM company, transaction WHERE transaction.company_id = company.id GROUP BY company_name;	100 row(s) returned
87	19:38:49	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany';	118 row(s) returned
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany';	118 row(s) returned
89	19:39:55	SELECT DISTINCT(company_name) FROM company JOIN transaction ON company.id = transaction.company_id WHERE amount > (SELECT AVG(amount) FROM transaction);	70 row(s) returned
90	19:40:32	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%';	6 row(s) returned

Ex4

dades_introduir estructura_dades sprint1 sprint2

```
22
23 SELECT company_name
24 FROM company
25 LEFT JOIN transaction ON company.id = transaction.company_id
26 WHERE company_id IS NULL;
27
28 #NIVELL 2
29
```

Result Grid

	company_name
--	--------------

Result 69 x

Output

#	Time	Action	Message
86	19:38:32	SELECT company_name, COUNT(transaction.id), CASE WHEN COUNT(transaction.id) >= 4 THEN 'TRUE' WHEN COUNT(transaction.id) < 4 THEN 'FALSE' FROM company, transaction WHERE transaction.company_id = company.id GROUP BY company_name;	100 row(s) returned
87	19:38:49	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany';	118 row(s) returned
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany';	118 row(s) returned
89	19:39:55	SELECT DISTINCT(company_name) FROM company JOIN transaction ON company.id = transaction.company_id WHERE amount > (SELECT AVG(amount) FROM transaction);	70 row(s) returned
90	19:40:32	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%';	6 row(s) returned
91	19:41:04	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%';	6 row(s) returned
92	19:41:09	SELECT company_name FROM company LEFT JOIN transaction ON company.id = transaction.company_id WHERE company_id IS NULL;	0 row(s) returned

NIVELL 2

Ex1

La empresa ‘senar institute’ no existeix, s’ha realitzat l’exercici amb una altra empresa, en tot cas només s’hauria de canviar el nom per modificar la búsqueda.

dades_introduir estructura_dades sprint1 **sprint2**

#NIVELL 2

#Ex1

SELECT transaction.*

FROM transaction, company

WHERE transaction.company_id = company.id AND country = (SELECT country FROM company WHERE company_name = 'Sed Id Limited');

#Ex2

Result Grid

id	credit_card_id	company_id	user_id	lat	longitude	timestamp	amount	declined
72997E96-DC2C-A4D7-7C24-66C30F8AESA	CcU-2952	b-2230	275	43.3584	-17.658	2022-01-30 15:16:36	239.87	0
8768FDE2-A231-6916-8644-F7DCD13CAFEC2	CcU-2952	b-2230	275	82.4588	141.301	2021-05-06 05:33:39	460.38	1
BA88BE60-3709-7C4A-63E1-74C8260A93EA	CcU-2994	b-2254	275	-46.7229	42.0159	2021-08-13 13:44:05	321.29	1
D33021E9-A61E-808C-5DE7-1DA4AC210465	CcU-2994	b-2254	275	5.27302	5.06131	2022-03-02 13:29:50	20.35	0
2EA96879-F291-A3E2-8DC8-EDFAFD054661	CcU-3064	b-2294	275	-76.0786	-8.29851	2021-08-20 05:48:42	108.20	1
91C71934-D66D-8A41-0D5E-67DA47DAC93C	CcU-3064	b-2294	275	83.6935	114.264	2022-01-22 22:09:08	179.40	0
07A46D4B-31A3-7E87-6599-0DA02AD109F	CcU-3225	b-2386	272	38.8342	92.1905	2021-06-28 21:11:42	340.87	1
249F458-D672-3152-8598-FE959AC3AEB6	CcU-3225	b-2386	272	-12.183	-73.7255	2021-04-25 23:15:39	245.25	0
15CC4662-013E-ED4B-941C-86464AFDAFAD	CcU-3239	b-2394	272	-14.0843	7.79937	2021-04-22 13:56:42	447.11	0
AE7487AD-88F4-6C7B-D41D-C432CF15875	CcU-3239	b-2394	272	23.5105	-131.823	2021-08-16 20:16:44	116.80	1
51D082C8-211E-C27A-24C1-239329CA176F	CcU-3246	b-2388	272	1.40278	-36.5595	2021-05-04 08:08:01	481.86	0
A84B14A2-2964-EFDE-A228-E5B8BCAD8767	CcU-3246	b-2388	272	54.5119	-173.784	2021-08-23 21:50:05	464.29	1
643CF9F8-30EC-537D-2F89-E5B8EAD5717C6	CcU-3267	b-2410	272	87.1071	159.483	2021-05-17 12:21:08	477.51	0
79AEE4A4-8CFA-14A0-53C5-C2143CA22E7	CcU-3267	b-2410	272	20.4357	115.733	2022-01-18 18:07:48	444.91	1
4F31DD6C-13DC-469A-E153-8E2C3C3C47BA	CcU-3288	b-2422	272	-55.8744	-88.1413	2021-10-29 05:50:17	411.53	1
7548D580-8332-0024-93F9-6A84785C2D5E	CcU-3288	b-2422	272	-70.2015	-172.762	2021-04-26 02:55:40	70.79	0
23CF8ED3-402C-7C54-59CD-D8505C5CCCE	CcU-3547	b-2570	267	30.4189	-31.8902	2021-05-17 05:33:40	425.64	0

Result 70

Output

Action Output

#	Time	Action	Message
87	19:38:49	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
89	19:39:55	SELECT DISTINCT(company_name) FROM company JOIN transaction ON company.id = transaction.company_id WHERE amount > (SELECT AVG(...	70 row(s) returned
90	19:40:32	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
91	19:41:04	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
92	19:41:09	SELECT company_name FROM company LEFT JOIN transaction ON company.id = transaction.company_id WHERE company_id IS NULL	0 row(s) returned
93	19:41:41	SELECT transaction.* FROM transaction, company WHERE transaction.company_id = company.id AND country = (SELECT country FROM company ...	17 row(s) returned

Ex2

dades_introduir estructura_dades sprint1 **sprint2**

#Ex2

SELECT company_name, amount

FROM company, transaction

WHERE transaction.company_id = company.id AND amount = (SELECT MAX(amount) FROM transaction);

#NIVELL 3

Result Grid

company_name	amount
Nunc Interdum Incorporated	499.23

Result 71

Output

Action Output

#	Time	Action	Message
88	19:39:17	SELECT transaction.* FROM transaction LEFT JOIN company ON company.id = transaction.company_id WHERE country = 'Germany'	118 row(s) returned
89	19:39:55	SELECT DISTINCT(company_name) FROM company JOIN transaction ON company.id = transaction.company_id WHERE amount > (SELECT AVG(...	70 row(s) returned
90	19:40:32	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
91	19:41:04	SELECT transaction.*, company_name FROM company, transaction WHERE company.id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
92	19:41:09	SELECT company_name FROM company LEFT JOIN transaction ON company.id = transaction.company_id WHERE company_id IS NULL	0 row(s) returned
93	19:41:41	SELECT transaction.* FROM transaction, company WHERE transaction.company_id = company.id AND country = (SELECT country FROM company ...	17 row(s) returned
94	19:46:42	SELECT company_name, amount FROM company, transaction WHERE transaction.company_id = company.id AND amount = (SELECT MAX(amount)...	1 row(s) returned

NIVELL 3

Ex1

The screenshot shows a SQL IDE with a query editor at the top and a results pane at the bottom. The query editor contains the following SQL code:

```
#NIVELL 3
#Ex1
SELECT AVG(amount), country
FROM transaction, company
WHERE transaction.company_id = company.id
GROUP BY country
HAVING AVG(amount) > (SELECT AVG(amount) FROM transaction);
```

The results pane displays the output of the query, which is a table with two columns: `AVG(amount)` and `country`. The data is as follows:

AVG(amount)	country
309.179412	United States
270.731700	United Kingdom
260.615063	Sweden
277.308387	Ireland
269.647869	Canada

Ex2

The screenshot displays a SQL development environment with two main panes: a query editor at the top and a results/output pane at the bottom.

Query Editor:

```
#Ex2
SELECT company_name, COUNT(transaction.id),
CASE
    WHEN COUNT(transaction.id) >= 4 THEN 'TRUE'
    WHEN COUNT(transaction.id) < 4 THEN 'FALSE'
END AS 'Mas de 4 transacciones'
FROM company, transaction
WHERE transaction.company_id = company.id
GROUP BY company_name
ORDER BY COUNT(transaction.id) DESC;
```

Result Grid:

company_name	COUNT(transaction.id)	Mas de 4 transacciones
Nunc Interdum Incorporated	105	TRUE
Ut Semper Foundation	59	TRUE
Eritm Conditmentum Ltd	57	TRUE
Arcui LLP	56	TRUE
Lorem Eu Incorporated	54	TRUE
Malesuada PC	52	TRUE
Non Institute	30	TRUE
Fusce Corp.	2	FALSE
Corvallis In Incorporated	2	FALSE
Anite Jaculis Nec Foundation	2	FALSE
Donec Ltd	2	FALSE
Sed Nunc Ltd	2	FALSE
Amet Nulla Donec Corporation	2	FALSE
Nascetur Ridiculus Mus Inc.	2	FALSE
Vestibulum Lorem PC	2	FALSE
Gravida Sagittis LLP	2	FALSE
Mus Aenean Eget Foundation	2	FALSE

Action Output:

#	Time	Action	Message
90	19:40:32	SELECT transaction.*, company_name FROM company, transaction WHERE company_id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
91	19:41:04	SELECT transaction.*, company_name FROM company, transaction WHERE company_id = transaction.company_id AND company_name LIKE 'C%'	6 row(s) returned
92	19:41:09	SELECT company_name FROM company LEFT JOIN transaction ON company_id = transaction.company_id WHERE company_id IS NULL	0 row(s) returned
93	19:41:41	SELECT transaction.* FROM transaction, company WHERE transaction.company_id = company.id AND country = (SELECT MAX(country) FROM company ...	17 row(s) returned
94	19:46:42	SELECT company_name, amount FROM company, transaction WHERE transaction.company_id = company.id AND amount = (SELECT MAX(amount) ...	1 row(s) returned
95	19:47:18	SELECT AVG(amount), country FROM transaction, company WHERE transaction.company_id = company.id GROUP BY country HAVING AVG(amoun...	5 row(s) returned
96	19:48:37	SELECT company_name, COUNT(transaction.id), CASE WHEN COUNT(transaction.id) >= 4 THEN 'TRUE' WHEN COUNT(transaction.id) < 4 TH...	100 row(s) returned