

# **UD4**

## **Activity 6**

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## ÍNDICE

<b>Objective.....</b>	<b>3</b>
<b>Instructions.....</b>	<b>3</b>
<b>EXERCISES.....</b>	<b>3</b>
<b>Activity Submission.....</b>	<b>16</b>

## Activity – SELECT Queries (DQL)

### Objective

To practice the use of the SELECT statement and all its clauses (WHERE, ORDER BY, LIMIT), along with operators and patterns, to query real information within the blogdb database.

### Instructions

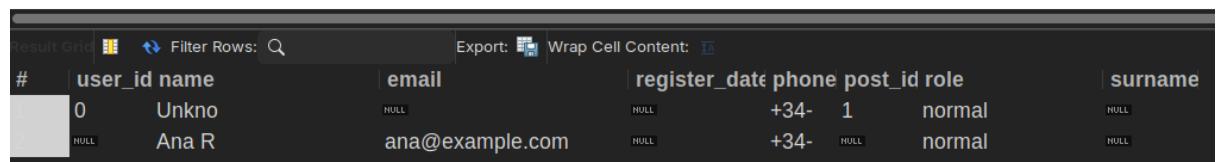
Below each exercise:

- Write the SQL query used.
- Add a screenshot with the result obtained.

## EXERCISES

1. Show all users in the user table

3 • `SELECT * FROM user;`



The screenshot shows the MySQL Workbench interface with a results grid. The query `SELECT * FROM user;` has been run, and the results are displayed in a table with the following columns: #, user\_id, name, email, register\_date, phone, post\_id, role, and surname. There is one row of data: user\_id 0, name 'Unkno', email 'NULL', register\_date 'NULL', phone '+34-', post\_id 1, role 'normal', and surname 'NULL'. The 'surname' column appears to be a placeholder or a column that is not populated for this specific user entry.

#	user_id	name	email	register_date	phone	post_id	role	surname
0	Unkno	Ana R	ana@example.com	NULL	+34-	1	normal	NULL

2. Show only the columns name, email, and role from the user table

```
6    -- 2
```

```
7 • SELECT name, email, role FROM user;
```

#	name	email	role
1	Unkno	NULL	normal
2	Ana R	ana@example.com	normal

3. Show users whose role is 'admin'

```
9    -- 3
```

```
10 • SELECT * FROM user
```

```
11 WHERE role = 'admin';
```

#	user_id	name	email	register_date	phone	post_id	role	surname
<b>user 3</b> <span style="color:red;">×</span>								
<b>Action Output</b> <span style="color:blue;">↻</span>								
1	13:28:50	SELECT * FROM user WHERE role = 'admin' LIMIT...		0 row(s) returned				0,000072 sec / 0,...

4. Show users who DO NOT have a phone

```
13    -- 4
```

```
14 • SELECT * FROM user
```

```
15 WHERE phone IS NULL;
```

#	user_id	name	email	register_date	phone	post_id	role	surname
<b>user 4</b> <span style="color:red;">×</span>								
<b>Action Output</b> <span style="color:blue;">↻</span>								
1	13:35:04	SELECT * FROM user WHERE phone IS NULL LIMIT...		0 row(s) returned				0,000098 sec / 0,...

5. Show posts whose title starts with “A”

```

17    -- 5
18 •  SELECT * FROM post
19 WHERE LEFT(title, 1) = 'A';
20

```

The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with various icons. Below it is a results grid with columns: #, post\_id, title, content, post\_date, and simple\_date. The grid currently has one row with all columns set to NULL. Below the grid is a status bar showing 'post 6'. Underneath the status bar is an 'Action Output' section. It contains a table with columns: #, Time, Action, Message, and Duration / Fetch. A single row is shown: # 1, Time 13:46:17, Action 'SELECT \* FROM post WHERE LEFT(title, 1) = 'A'' LIMIT 0, 1000, Message '0 row(s) returned', and Duration / Fetch '0,000089 sec / 0,...'. There are also some other tabs like 'Edit', 'Export/Import', and 'Wrap Cell Content'.

#	post_id	title	content	post_date	simple_date
	HULL	HULL	HULL	HULL	HULL

Action Output
# Time Action Message Duration / Fetch 1 13:46:17 SELECT * FROM post WHERE LEFT(title, 1) = 'A' LIMIT 0, 1000 0 row(s) returned 0,000089 sec / 0,...

6.

- Insert the following comments to be able to perform point b.

INSERT INTO comment (content, comment\_date, user\_ID, post\_ID)

VALUES ('Se ha producido un error al guardar los datos.', '2024-03-20', 1, 1), ('ERROR grave en el sistema de autenticación.', '2024-03-21', 2, 1), ('No entiendo este ErRoR que aparece al ejecutar la consulta.', '2024-03-22', 3, 2);

```

21    -- 6
22 •  INSERT INTO comment (comment_text, comment_date, user_ID, post_ID)
23 VALUES
24 ('Se ha producido un error al guardar los datos.', '2024-03-20', 1, 1),
25 ('ERROR grave en el sistema de autenticación.', '2024-03-21', 2, 1),
26 ('No entiendo este ErRoR que aparece al ejecutar la consulta.', '2024-03-22', 3, 2);
27
28

```

The screenshot shows the MySQL Workbench interface. At the bottom, there's an 'Action Output' section. It contains a table with columns: #, Time, Action, Message, and Duration / Fetch. A single row is shown: # 1, Time 13:59:15, Action 'INSERT INTO comment (comment\_text, comment\_date, user\_ID, pos...', Message '3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0', and Duration / Fetch '0,0043 sec'. There are also other tabs like 'Edit', 'Export/Import', and 'Wrap Cell Content'.

Action Output
# Time Action Message Duration / Fetch 1 13:59:15 INSERT INTO comment (comment_text, comment_date, user_ID, pos... 3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0 0,0043 sec

- b. Show all comments that contain the word “error”, even if written in uppercase, lowercase, or mixing both.

```
28    -- 6.b
29 •  SELECT * FROM comment
30   WHERE LOWER(comment_text) LIKE '%error';
31
```

#	comment_id	post_id	user_id	comment_text	comment_date
	NULL	NULL	NULL	NULL	NULL

7. Show posts whose post\_ID is between 3 and 7

```
32    -- 7
33 •  SELECT * FROM post
34   WHERE post_id IN(3 AND 7);
35
```

#	post_id	title	content	post_date	simple_date
	1	Ch...	changed th...	2025-12-10	2025-12-12

post 3 ✎

Action Output ▾

#	Time	Action
1	16:48:14	SELECT * FROM post WHERE post_id IN(3 AND 7) LIMIT 0, 1000

## 8. Show users whose email ends in '@gmail.com'

```
36    -- 8
37 •  SELECT * FROM user
38 WHERE RIGHT(email, 10) = '@gmail.com';
39
```

The screenshot shows the MySQL Workbench interface with a result grid. The grid has columns: #, user\_id, name, email, register\_date, phone, post\_id, role, and surname. One row is visible for 'user 6'. Below the grid is an 'Action Output' section showing a single log entry.

#	user_id	name	email	register_date	phone	post_id	role	surname
6	user 6							

Action Output:

#	Time	Action
1	16:51:41	SELECT * FROM user WHERE RIGHT(email, 10) = '@gmail.com' LIMIT 0, 1000

## 9. Show users whose role is admin, external, or moderator

```
40    -- 9
41 •  SELECT * FROM user
42 WHERE role = ('admin' OR 'external' OR 'moderator');
43
```

The screenshot shows the MySQL Workbench interface with a result grid. The grid has columns: #, user\_id, name, email, register\_date, phone, post\_id, role, and surname. Two rows are visible: one for 'Unkno' and one for 'Ana R'. Below the grid is an 'Action Output' section showing a single log entry.

#	user_id	name	email	register_date	phone	post_id	role	surname
0	NULL	Unkno	HULL	NULL	+34-	1	normal	NULL
1	NULL	Ana R	ana@example.com	NULL	+34-	NULL	normal	NULL

Action Output:

#	Time	Action
1	16:53:39	SELECT * FROM user WHERE role = ('admin' OR 'external' OR 'moderator') LIMIT 0, 1000

## 10. Show posts ordered from newest to oldest

```
44 -- 10
45 • SELECT * FROM post
46 ORDER BY post_date DESC;
47
48
```

The screenshot shows the MySQL Workbench interface. The 'Result Grid' tab is active, displaying a table with columns: #, post\_id, title, content, post\_date, and simple\_date. There are two rows of data:

#	post_id	title	content	post_date	simple_date
	2	Ch...	change con...	2025-12-11	2025-12-12
	1	Ch...	changed th...	2025-12-10	2025-12-12

The 'Action Output' tab at the bottom shows a single log entry:

#	Time	Action
1	16:58:23	SELECT * FROM post ORDER BY post_date DESC LIMIT 0, 1000

## 11. Show the first 5 registered users

```
48 -- 11
49 • SELECT * FROM user
50 ORDER BY register_date ASC
51 LIMIT 5;
52
53
```

The screenshot shows the MySQL Workbench interface. The 'Result Grid' tab is active, displaying a table with columns: #, user\_id, name, email, register\_date, phone, post\_id, role, and surname. There are two rows of data:

#	user_id	name	email	register_date	phone	post_id	role	surname
0	Unkno		HULL	HULL	+34-	1	normal	HULL
	Ana R		ana@example.com	HULL	+34-	HULL	normal	HULL

The 'Action Output' tab at the bottom shows a single log entry:

#	Time	Action
1	17:03:54	SELECT * FROM user ORDER BY register_date ASC LIMIT 5

## 12. Show the 3 oldest posts

```
53    -- 12
54 •  SELECT * FROM post
55   ORDER BY post_date DESC
56   LIMIT 3;
57
```

The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with 'Result Grid' and other options. Below it is a table titled '# post\_id title content post\_date simple\_date'. It contains two rows: one with post\_id 2 and another with post\_id 1. Both rows have 'Ch...' in the title and content columns, and '2025-12-11' and '2025-12-12' respectively in the post\_date and simple\_date columns. The bottom part of the interface shows an 'Action Output' section with a table titled '# Time Action'. A single row is listed: '# 1 17:05:12 SELECT \* FROM post ORDER BY post\_date DESC LIMIT 3'. This row is highlighted with a blue background.

#	post_id	title	content	post_date	simple_date
1	2	Ch...	change con...	2025-12-11	2025-12-12
2	1	Ch...	changed th...	2025-12-10	2025-12-12

post 10 ×

Action Output		
#	Time	Action
1	17:05:12	SELECT * FROM post ORDER BY post_date DESC LIMIT 3

13. Order users first by role and within each role by name

```
58 -- 13
59 • SELECT role FROM user
60 ORDER BY role ASC;
61
62
```

The screenshot shows the MySQL Workbench interface. The Result Grid displays the output of the previous query:

#	role
1	normal
2	normal

The Action Output log shows two queries executed:

#	Time	Action
1	17:08:57	SELECT * FROM user ORDER BY role ASC LIMIT 0, 1000
2	17:09:27	SELECT role FROM user ORDER BY role ASC LIMIT 0, 1000

```
62 • SELECT name FROM user
63 ORDER BY name ASC;
```

The screenshot shows the MySQL Workbench interface. The Result Grid displays the output of the previous query:

#	name
1	Ana R
2	Unkno

The Action Output log shows one query executed:

#	Time	Action
1	17:10:19	SELECT name FROM user ORDER BY name ASC LIMIT 0, 1000

## 14. Rename columns using AS

```
name AS UserName
```

```
65      -- 14
66 •  SELECT name AS 'UserName' FROM user;
67
```

The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with 'Result Grid', 'Filter Rows:', 'Export:', and 'Wrap Cell Content'. Below the toolbar is the 'Result Grid' window, which displays a table with two rows. The first row has a '#' column value of 1 and a 'UserName' column value of 'Unkno'. The second row has a '#' column value of 2 and a 'UserName' column value of 'Ana R'. Below the result grid is the 'Action Output' window, which shows a history of actions. It includes a search bar 'user 14' and a table with columns '#', 'Time', and 'Action'. A single entry is listed: '# 1 17:12:11 SELECT name AS 'UserName' FROM user LIMIT 0, 1000'. This entry is highlighted with a blue background.

```
registration_date AS JoinDate
```

```
68 •  SELECT register_date AS 'JoinDate' FROM user;
```

The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with 'Result Grid', 'Filter Rows:', 'Export:', and 'Wrap Cell Content'. Below the toolbar is the 'Result Grid' window, which displays a table with two rows. Both rows have a '#' column value of 1 and a 'JoinDate' column value of 'NULL'. Below the result grid is the 'Action Output' window, which shows a history of actions. It includes a search bar 'user 15' and a table with columns '#', 'Time', and 'Action'. A single entry is listed: '# 1 17:13:29 SELECT register\_date AS 'JoinDate' FROM user LIMIT 0, 1000'. This entry is highlighted with a blue background.

15. Show users whose name contains the letter “o” anywhere

```
70  -- 15
71 • SELECT * FROM user
72 WHERE name LIKE '%o';
73
```

#	user_id	name	email	register_date	phone	post_id	role	surname
0	Unkno		NULL	NULL	+34-	1	normal	NULL

Action	Time	Query
user 16		
Action Output		
# Time Action		
1 17:14:52 SELECT * FROM user WHERE name LIKE '%o' LIMIT 0, 1000		

16. Show users whose name contains a space in the middle

```
74  -- 16
75 • SELECT * FROM user
76 WHERE name LIKE '% %';
77
```

#	user_id	name	email	register_date	phone	post_id	role	surname
0	Unkno		NULL	NULL	+34-	1	normal	NULL

Action	Time	Query
user 17		
Action Output		
# Time Action		
1 17:15:58 SELECT * FROM user WHERE name LIKE '% %' LIMIT 0, 1000		

17. Show the last 8 users according to registration\_date

```
78  -- 17
79 • SELECT * FROM user
80 ORDER BY register_date DESC
81 LIMIT 8;
82
```

#	user_id	name	email	register_date	phone	post_id	role	surname
0	Unkno		NULL	NULL	+34-	1	normal	NULL
1	Ana R		ana@example.com	NULL	+34-	NULL	normal	NULL

Action	Time	Query
user 18		
Action Output		
# Time Action		
1 17:18:12 SELECT * FROM user ORDER BY register_date DESC LIMIT 8		

18. Show posts whose title has exactly 5 characters

```
83  -- 18
84 • SELECT * FROM post
85 WHERE LENGTH(title) = 5;
86
```

#	post_id	title	content	post_date	simple_date
	NULL	NULL	NULL	NULL	NULL

post 1				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	19:22:48	SELECT * FROM post WHERE LENGTH(title) = 5 ...	0 row(s) returned	0,0081 sec / 0,0...

19. Show users who DO have a phone and order them from highest to lowest

```
87  -- 19
88 • SELECT * FROM user
89 WHERE phone IS NOT NULL
90 ORDER BY phone DESC;
91
```

#	user_id	name	email	register_date	phone	post_id	role	surname
0	NULL	Unkno	HULL		+34-	1	normal	HULL

user 2				
Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	19:25:28	SELECT * FROM user WHERE phone IS NOT NUL...	2 row(s) returned	0,0021 sec / 0,0...

20. Design a query that shows:

- name
- email
- role of users who meet ALL these conditions:
  - The role is NOT ‘admin’
  - The name contains the letter “a”
  - They have a phone OR their email ends in ‘gmail.com’
  - Ordered by registration\_date from newest to oldest
  - Show only the first 6 results

```

92    -- 20
93 • SELECT name, email, role FROM user
94   WHERE (
95     role <> 'admin'
96     AND name LIKE '%a'
97     AND phone IS NOT NULL OR RIGHT(email, 10) = '@gmail.com'
98   )
99   ORDER BY register_date DESC
100  LIMIT 6;

```

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

#	name	email	role
user 3			

Action Output:

#	Time	Action	Message	Duration / Fetch
1	19:37:43	SELECT name, email, role FROM user WHERE ( ...	0 row(s) returned	0,000076 sec / 0,...

21. Show title, publication\_date, and user\_ID of the posts that meet ALL these rules:

- The title contains the word 'SQL' OR the word 'Docker'.
- AND, the publication\_date is between '2024-01-01' and '2024-12-31', OR the publication\_date is NULL (no date).
- Order the result by publication\_date from newest to oldest.
- Show only the first 10 results.

```

105    -- 21
106 • SELECT post_date, user_id FROM post
107   WHERE (
108     title LIKE '%SQL' OR title LIKE '%Docker'
109   )
110   AND
111   (
112     (post_date BETWEEN '2024-01-01' AND '2024-12-31')
113     OR post_date IS NULL
114   )
115   ORDER BY post_date DESC
116  LIMIT 10;

```

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

#	post_date	user_id
post 4		

Action Output:

#	Time	Action	Message	Duration / Fetch
1	20:02:19	SELECT post_date, user_id FROM post WHERE ( ...	0 row(s) returned	0,000077 sec / 0,...

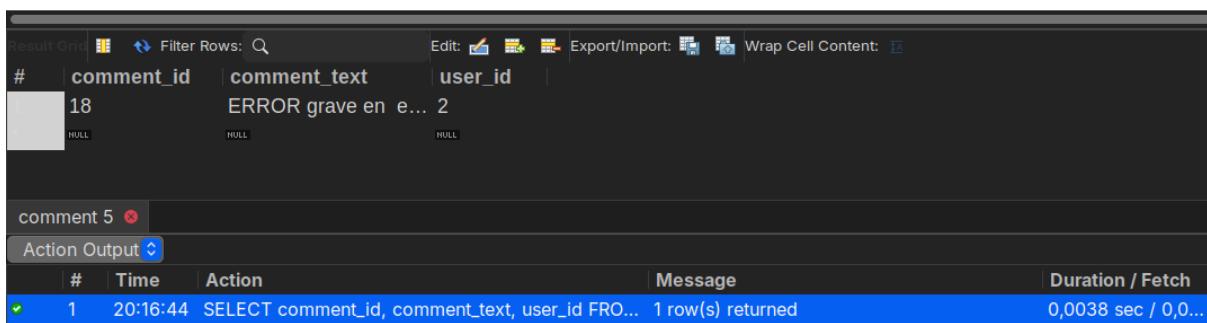
22. Show comments filtered by content and user  
 Show the following fields from the comment table:

- comment\_ID
  - content
  - user\_ID From the comments that meet ALL these conditions:
    - The content starts with the word 'Error' OR contains the word 'falló' anywhere in the text.
    - The comment was written by a user whose user\_ID is in the list (1, 2, 3, 4).
    - The content is NOT NULL.
- Additionally:
- Order the results by comment\_ID from highest to lowest.

```

118 -- 22
119 • SELECT comment_id, comment_text, user_id FROM comment
120 WHERE (
121   LEFT(comment_text, 5) = 'Error'
122   OR comment_text LIKE '%falló'
123 )
124 AND
125 (
126   user_id IN (1, 2, 3, 4)
127 )
128 AND
129 (
130   comment_text IS NOT NULL
131 )
132 ORDER BY comment_id ASC;
133

```



The screenshot shows the MySQL Workbench interface. At the top, there's a toolbar with various icons for filtering rows, editing, exporting/importing, and wrapping cell content. Below the toolbar is a result grid with three columns: #, comment\_id, and comment\_text. A single row is displayed with comment\_id 18 and comment\_text 'ERROR grave en e...'. The user\_id column is shown as NULL. Below the result grid, there's a message bar that says 'comment 5' followed by a red error icon. Underneath the message bar is an 'Action Output' section. It has a table with columns: #, Time, Action, Message, and Duration / Fetch. One entry is visible: '# 1 20:16:44 SELECT comment\_id, comment\_text, user\_id FRO... 1 row(s) returned 0,0038 sec / 0,0...'. The 'Message' column shows the query text.

23. Show name, email, and role of the users that meet:

- (role is in the list ('external', 'guest') or the phone is NULL) OR
  - (role is 'verified' AND the email ends in '@gmail.com').
- Additionally:
  - Order the results first by role (ascending) and, within each role, by name (ascending).
  - Show only the first 15 results.

```
134    -- 23
135 •  SELECT name, email, role FROM user
136   WHERE (
137     role IN('extern' AND 'guest')
138     OR phone IS NULL
139   )
140 OR
141   (
142     role = 'verified'
143     AND RIGHT(email, 10) = '@gmail.com'
144   )
145 ORDER BY role ASC, name ASC
146 LIMIT 15;
147
```

The screenshot shows the MySQL Workbench interface. At the top, there is a code editor window containing the provided SQL query. Below it is a result grid displaying two rows of data:

#	name	email	role
	Ana R	ana@example.com	normal
	Unkno	NULL	normal

Below the result grid is a session list titled "user 1" which contains one entry: "Action Output". Under "Action Output", there is a table showing the execution details:

#	Time	Action	Message	Duration / Fetch
1	20:28:32	SELECT name, email, role FROM user WHERE ( ...	2 row(s) returned	0,0014 sec / 0,00...

## Activity Submission

Export the complete document to PDF and upload it to Google Classroom.