

# **UD4**

## **Activity 5**

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## Objective

Practice the use of the DELETE, TRUNCATE and DROP statements in MySQL to remove records and tables, using simple and combined conditions on a database.

## Description

Under each exercise you must:

- Paste the SQL code used.
- Include a screenshot showing the result.

## Exercises

### 1. Create a test users table

Create a test table without foreign keys, intended only for practicing DELETE, called **user\_test\_blog**, with the following fields:

- user\_ID (integer, AUTO\_INCREMENT, PK)
- name VARCHAR(50)
- email VARCHAR(100)
- role VARCHAR(20)
- phone VARCHAR(20)
- registration\_date DATE

```
3  -- 1
4  • CREATE TABLE user_test_blog (
5      user_id INT AUTO_INCREMENT PRIMARY KEY,
6      name VARCHAR(50),
7      email VARCHAR(100),
8      role VARCHAR(20),
9      phone VARCHAR(20),
10     registration_date DATE
11 );
```

Action Output				
#	Time	Action	Message	Duration /
✓ 1	16:09:25	CREATE TABLE user_test_blog ( user_id INT ...	0 row(s) affected	0,029 sec

## 2. Insert initial data into user\_test\_blog

Insert the following records into the table user\_test\_blog:

```
('Maria', 'maria@example.com', 'admin', '600111222', '2024-01-10'),
('Luis', 'luis@hotmail.com', 'guest', NULL, '2023-05-15'),
('Ana', 'ana@example.com', 'external', NULL, '2022-11-20'),
('Pedro', 'pedro@example.com', 'normal', '600333444', '2025-02-01'),
('Marta', 'marta@hotmail.com', 'pending', NULL, '2023-03-05'),
('Jorge', 'jorge@example.com', 'blocked', NULL, '2022-12-12'),
('Miguel', 'miguel@example.com', 'moderator', '600555666',
'2024-06-01'), ('Lucia', 'lucia@example.com', 'external', '600777888',
'2021-09-09'),
('Sergio', 'sergio@example.com', 'guest', NULL, '2020-10-10'),
('Manuel', 'manuel@example.com', 'normal', NULL, '2023-08-08'),
('Raul', 'raul@hotmail.com', 'external', NULL, '2020-01-01'),
('Laura', 'laura@example.com', 'verified', '600999000', '2024-03-03');
```

```
13  -- 2
14 • INSERT INTO user_test_blog (name, email, role, phone, registration_date)
15  VALUES
16  ('Maria', 'maria@example.com', 'admin', '600111222', '2024-01-10'),
17  ('Luis', 'luis@hotmail.com', 'guest', NULL, '2023-05-15'),
18  ('Ana', 'ana@example.com', 'external', NULL, '2022-11-20'),
19  ('Pedro', 'pedro@example.com', 'normal', '600333444', '2025-02-01'),
20  ('Marta', 'marta@hotmail.com', 'pending', NULL, '2023-03-05'),
21  ('Jorge', 'jorge@example.com', 'blocked', NULL, '2022-12-12'),
22  ('Miguel', 'miguel@example.com', 'moderator', '600555666', '2024-06-01'),
23  ('Lucia', 'lucia@example.com', 'external', '600777888', '2021-09-09'),
24  ('Sergio', 'sergio@example.com', 'guest', NULL, '2020-10-10'),
25  ('Manuel', 'manuel@example.com', 'normal', NULL, '2023-08-08'),
26  ('Raul', 'raul@hotmail.com', 'external', NULL, '2020-01-01'),
27  ('Laura', 'laura@example.com', 'verified', '600999000', '2024-03-03');
28
29
```

Action Output				
#	Time	Action	Message	Duration / F
✓ 1	16:11:26	INSERT INTO user_test_blog (name, email, role, p...	12 row(s) affected Records: 12 Duplicates: 0 Warnings: 0	0,0054 sec

### 3. Delete a user by ID

In user\_test\_blog, delete the user whose user\_ID = 4.

```
29 -- 3
30 • DELETE FROM user_test_blog
31 WHERE user_id = 4;
32
```

Action Output				
#	Time	Action	Message	Duration / F
✓ 1	16:13:33	DELETE FROM user_test_blog WHERE user_id = 4	1 row(s) affected	0,0044 sec

### 4. Delete all users with role 'guest'

In user\_test\_blog, delete all users whose role = 'guest'.

```
33 -- 4
34 • DELETE FROM user_test_blog
35 WHERE role = 'guest';
36
```

Action Output				
#	Time	Action	Message	Duration / F
✓ 1	16:14:57	DELETE FROM user_test_blog WHERE role = 'gue...	2 row(s) affected	0,0056 sec

### 5. Delete publications that might cause a foreign key error

a) Execute the DELETE on table publicación:

```
DELETE FROM publicación
WHERE publicacion_ID > 10;
```

b) Indicate whether an error appears.

c) Explain why it happens.

Doesn't work, because it has a FK.

d) Explain how you would solve it while maintaining referential integrity.

Make de post\_id without FK.

### 6. Reinsert test users to continue

Insert test users again into user\_test\_blog to continue the exercises:

```
('Carlos', 'carlos@example.com', 'admin', '600101010', '2024-02-10'),
('Elena', 'elena@hotmail.com', 'guest', NULL, '2023-07-15'),
('Rosa', 'rosa@example.com', 'external', NULL, '2022-05-20'),
('David', 'david@example.com', 'normal', '600202020', '2025-01-02'),
('Luciana', 'luciana@hotmail.com', 'pending', NULL, '2023-09-05'),
('Samuel', 'samuel@example.com', 'blocked', NULL, '2022-12-20'),
('Paula', 'paula@example.com', 'moderator', '600303030', '2024-06-21'),
('Hector', 'hector@example.com', 'external', '600404040', '2021-11-11'),
('Noelia', 'noelia@example.com', 'guest', NULL, '2020-02-12'),
('German', 'german@example.com', 'normal', NULL, '2023-10-18'),
('Roberto', 'roberto@hotmail.com', 'external', NULL, '2020-01-22'),
```

```
('Sonia', 'sonia@example.com', 'verified', '600505050', '2024-04-04');
```

**Note:** If you run out of suitable records in later exercises, you may run this INSERT again.

```

45  -- 6
46 • INSERT INTO user_test_blog (name, email, role, phone, registration_date)
47  VALUES
48  ('Carlos', 'carlos@example.com', 'admin', '600101010', '2024-02-10'),
49  ('Elena', 'elena@hotmail.com', 'guest', NULL, '2023-07-15'),
50  ('Rosa', 'rosa@example.com', 'external', NULL, '2022-05-20'),
51  ('David', 'david@example.com', 'normal', '600202020', '2025-01-02'),
52  ('Luciana', 'luciana@hotmail.com', 'pending', NULL, '2023-09-05'),
53  ('Samuel', 'samuel@example.com', 'blocked', NULL, '2022-12-20'),
54  ('Paula', 'paula@example.com', 'moderator', '600303030', '2024-06-21'),
55  ('Hector', 'hector@example.com', 'external', '600404040', '2021-11-11'),
56  ('Noelia', 'noelia@example.com', 'guest', NULL, '2020-02-12'),
57  ('German', 'german@example.com', 'normal', NULL, '2023-10-18'),
58  ('Roberto', 'roberto@hotmail.com', 'external', NULL, '2020-01-22'),
59  ('Sonia', 'sonia@example.com', 'verified', '600505050', '2024-04-04');
60
61

```

Action Output				
#	Time	Action	Message	
✓ 1	16:44:48	INSERT INTO user_test_blog (name, email, role, p...	12 row(s) affected Records: 12 Duplicates: 0 Warnings: 0	

## 7. Delete users who are not admin

In user\_test\_blog, delete all users whose role is not 'admin'.

```

61  -- 7
62 • DELETE FROM user_test_blog
63  WHERE role <> 'admin';
64

```

Action Output				
#	Time	Action	Message	
✓ 1	16:46:23	DELETE FROM user_test_blog WHERE role <> 'ad...	19 row(s) affected	

### 8. Delete external users without a phone number

In user\_test\_blog, delete users whose role = 'external' and whose phone is NULL.

```
65  -- 8
66 • DELETE FROM user_test_blog
67   WHERE role = 'external'
68   AND phone IS NULL;
69
```

Action Output				
	#	Time	Action	Message
✓	1	16:51:38	DELETE FROM user_test_blog WHERE role = 'ext...	0 row(s) affected

### 9. Delete blocked or pending users

In user\_test\_blog, delete users whose role is 'blocked' or 'pending'.

```
70  -- 9
71 • DELETE FROM user_test_blog
72   WHERE role = 'blocked'
73   OR role = 'pending';
74
```

Action Output				
	#	Time	Action	Message
✓	1	16:53:15	DELETE FROM user_test_blog WHERE role = 'blo...	0 row(s) affected

### 10. Delete comments with NULL content

Delete comments whose content is NULL from the table comment.

```
75  -- 10
76 • DELETE FROM comment
77   WHERE comment_text IS NULL;
78
```

Action Output				
	#	Time	Action	Message
✓	1	16:54:44	DELETE FROM comment WHERE comment_text IS...	0 row(s) affected

### 11. Delete users by a list of IDs

In user\_test\_blog, delete users whose user\_ID is in the list:  
(2, 5, 8, 20, 25, 36, 38, 41).

```
79  -- 11
80 • DELETE FROM user_test_blog
81   WHERE user_id IN (2, 5, 8, 20, 25, 36, 38, 41);
82
```

Action Output				
	#	Time	Action	Message
✓	1	16:56:18	DELETE FROM user_test_blog WHERE user_id IN (...	0 row(s) affected

### 12. Delete users by role not allowed

In user\_test\_blog, delete users whose role is not in ('admin', 'external', 'verified').

```
83  -- 12
84 • DELETE FROM user_test_blog
85   WHERE role NOT IN ('admin', 'external', 'verified');
86
```

Action Output				
	#	Time	Action	Message
✓	1	16:57:57	DELETE FROM user_test_blog WHERE role NOT I...	0 row(s) affected

### 13. Delete publications by ID range

Delete publications whose publication\_ID is between 3 and 6 (inclusive).

```
87  -- 13
88 • DELETE FROM post
89   WHERE post_id BETWEEN 3 AND 6;
90
```


Action Output				
	#	Time	Action	Message
✓	1	16:59:50	DELETE FROM post WHERE post_id BETWEEN 3 ...	0 row(s) affected



**14. Delete users with Hotmail emails**

In user\_test\_blog, delete users whose email ends with @[hotmail.com](mailto:hotmail.com).

```
91  -- 14
92 • DELETE FROM user_test_blog
93 WHERE email LIKE '%@hotmail.com';
94
```

Action Output 

	#	Time	Action	Message
✓	1	17:02:19	DELETE FROM user_test_blog WHERE email LIKE ...	0 row(s) affected

### 15. Create category table and insert records

Create a table called category with a field code VARCHAR(10) and insert the following records:

```
95  -- 15
```

```
96  • CREATE TABLE category (
```

```
97      name VARCHAR(50),
```

```
98      code VARCHAR(10)
```

```
99  );
```

```
100
```

Action Output

#	Time	Action	Message
✓ 1	17:06:05	CREATE TABLE category ( name VARCHAR(5...	0 row(s) affected

```
('Technology', 'A1'),
```

```
('Cooking', 'A2'),
```

```
('Travel', 'AB'),
```

```
('Education', 'A_BX'),
```

```
('Sports', 'X1'),
```

```
('Science', 'A12'),
```

```
('Art', 'B_');
```

```
101 • INSERT INTO category(name, code)
```

```
102 VALUES
```

```
103 ('Technology', 'A1'),
```

```
104 ('Cooking', 'A2'),
```

```
105 ('Travel', 'AB'),
```

```
106 ('Education', 'A_BX'),
```

```
107 ('Sports', 'X1'),
```

```
108 ('Science', 'A12'),
```

```
109 ('Art', 'B_');
```

```
110
```

Action Output

#	Time	Action	Message
✓ 1	17:06:05	CREATE TABLE category ( name VARCHAR(5...	0 row(s) affected
✓ 2	17:07:56	INSERT INTO category(name, code) VALUES ('Te...	7 row(s) affected Records: 7 Duplicates: 0 Warnings: 0

**16. Delete categories matching the pattern 'A\_'**

Delete categories whose code matches the pattern 'A\_'.

```
111 -- 16
112 • DELETE FROM category
113 WHERE code LIKE 'A_';
114
```

Action Output				
	#	Time	Action	Message
✓	1	17:12:01	DELETE FROM category WHERE code LIKE 'A_'	3 row(s) affected

**17. Delete users whose name does not start with M**

In user\_test\_blog, delete users whose name does not begin with the letter 'M'.

```
115 -- 17
116 • DELETE FROM user_test_blog
117 WHERE name NOT LIKE '%M';
118
```

Action Output				
	#	Time	Action	Message
✓	1	17:16:25	DELETE FROM user_test_blog WHERE name NOT ...	2 row(s) affected

**18. Empty the category table**

Empty the category table completely using TRUNCATE.

```
119 -- 18
120 • TRUNCATE TABLE category;
121
```

Action Output				
	#	Time	Action	Message
✓	1	17:18:34	TRUNCATE TABLE category	0 row(s) affected

### 19. Delete the category table

Delete the table category using DROP.

```
122 -- 19
123 • DROP TABLE category;
124
```

Action Output				
	#	Time	Action	Message
✓	1	17:19:13	DROP TABLE category	0 row(s) affected

### 20. Delete users by role and ID

In user\_test\_blog, delete users whose role is in ('external', 'guest') and whose user\_ID is greater than 5.

```
125 -- 20
126 • DELETE FROM user_test_blog
127 WHERE role IN ('external', 'guest')
128 AND user_id > 5;
129
```

Action Output					
	#	Time	Action	Message	Duration / F
✓	1	21:48:02	DELETE FROM user_test_blog WHERE role IN ('external', 'guest') AND user_id > 5	0 row(s) affected	0,0057 sec

**21. Delete users who are not admin or guest and also have no phone**

(In user\_test\_blog, delete users who are NOT 'admin' or 'guest' AND also have phone IS NULL.)

```

132 -- 21
133 • DELETE FROM user_test_blog
134   WHERE role NOT IN ('admin', 'guest')
135   AND phone IS NULL;
136
137

```

Action Output				
#	Time	Action	Message	Duration / Fe
✓ 1	22:00:15	DELETE FROM user_test_blog WHERE role NOT IN ('admin', 'guest') AND phone IS NULL	0 row(s) affected	0,00073 sec

**22. Delete publications by title and ID**

Delete publications whose title begins with 'A' and whose publication\_ID is between 3 and 6.

```

137 -- 22
138 • DELETE FROM post
139   WHERE title LIKE 'A%'
140   AND post_id BETWEEN 3 AND 6;
141

```

Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	22:07:25	DELETE FROM post WHERE title LIKE 'A%' AND post_id BETWEEN 3 AND 6	0 row(s) affected	0,0049 sec

**23. Delete using a dynamic condition with IF**

In user\_test\_blog, delete users depending on a dynamic condition:

- If the user is 'admin' → keep them.
- If the user is not admin → delete them if their user\_ID is greater than 10.

```

142 -- 23
143 • DELETE FROM user_test_blog
144   WHERE IF (role = 'admin', 0, user_id > 10);
145

```

Action Output				
#	Time	Action	Message	Duration / Fe
✓ 1	22:12:15	DELETE FROM user_test_blog WHERE IF (role = 'admin', 0, user_id > 10)	0 row(s) affected	0,00079 sec

**24. Delete comments by user and content**

Delete comments made by users with user\_ID 1, 2 or 3 and whose content begins with 'Comment'.

```

146 -- 24
147 • DELETE FROM comment
148   WHERE user_id = 1 OR user_id = 2 OR user_id = 3
149   AND comment_text LIKE 'Comment';
150

```

Action Output				
#	Time	Action	Message	Duration / Fetch
✓ 1	22:21:17	DELETE FROM comment WHERE user_id = 1 OR user_id = 2 OR user_id = 3 AND comm...	13 row(s) affected	0,0058 sec

## 25. Delete users by role and registration date

In user\_test\_blog, delete users whose role is 'external' or 'guest', but only if their registration\_date is earlier than 2024.

```
151 -- 25
152 • DELETE FROM user_test_blog
153 WHERE role IN('external', 'guest')
154 AND registration_date < '2024-01-01';
155
```

Action Output				
#	Time	Action	Message	Duration / Fe
✓ 1	22:26:10	DELETE FROM user_test_blog WHERE role IN('external', 'guest') AND registration_date ...	0 row(s) affected	0,00097 sec

## Submission

Export the activity as a **PDF file** and upload it to **Google Classroom**.