



SQL Murder Mystery: "Who Killed the CEO?"

A Data-Driven Investigation Using SQL

Mission: Uncover the killer – using nothing but SQL
and the clues hidden in the database.

Presented by: N SOUMYA



Mission Briefing: The Crime & Data

1

The Victim

CEO of TechNova Inc. found dead in their office.

2

Time of Death

October 15, 2025, around 9:00 PM.

3

Role

Lead Data Analyst

4

Data Sources

Employees, Keycard logs, calls, alibis, evidence.

Clue Database: Where All the Evidence Lives



Our investigation relies on **5 key tables** in the database:



Employees

Who works at TechNova.



Keycard Logs

Who entered which room, when.



Calls

Who called whom, and when.



Alibis

Where employees claimed to be.



Evidence

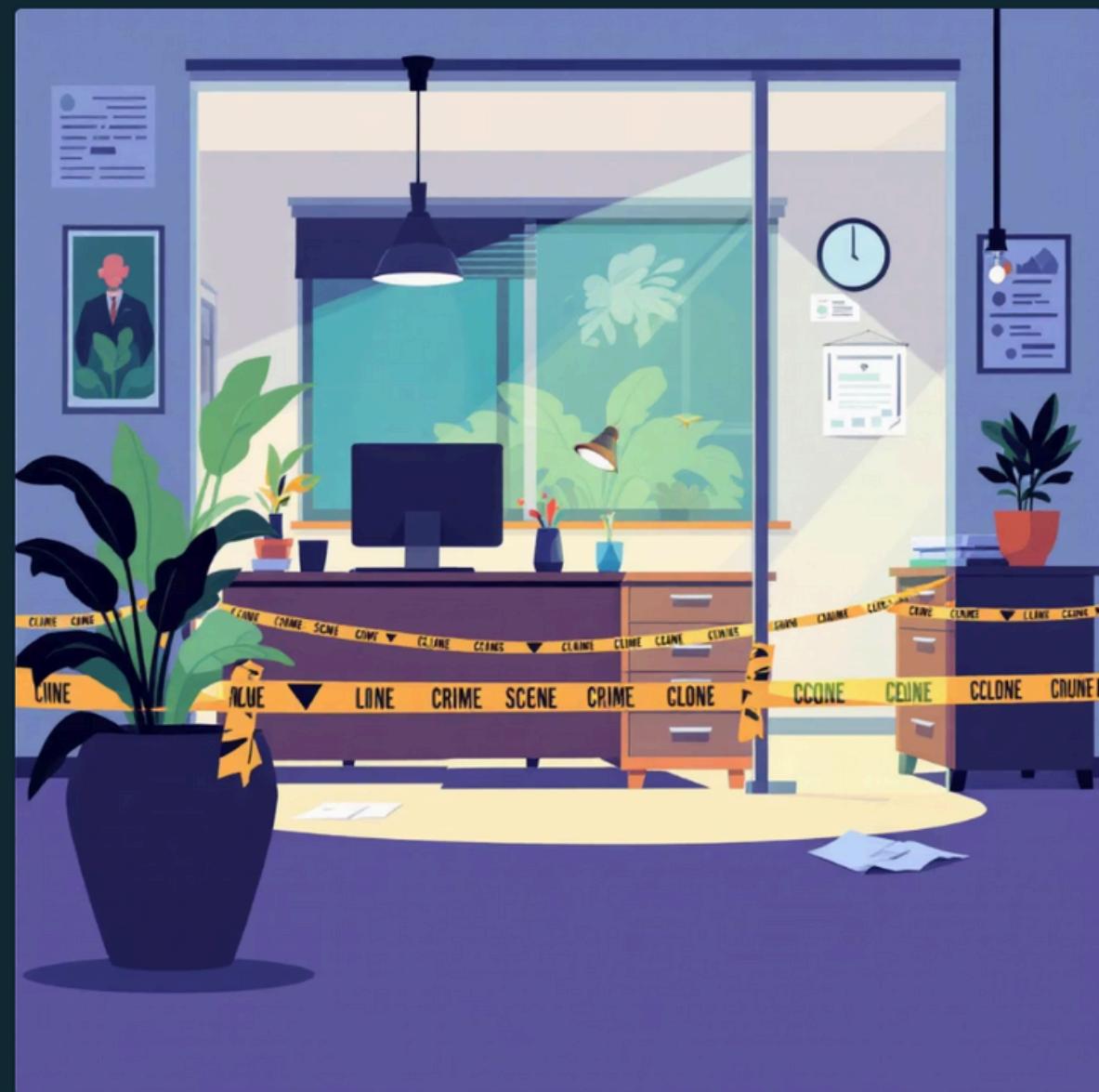
What was found and where.

Step 1: Where and When Did the Crime Happen?

I queried the evidence table for clues found in the CEO Office, revealing both the crime scene and the likely time of the murder.

SQL QUERY

```
SELECT  
    room AS evidence_room,  
    description AS evidence_found,  
    found_time AS evidence_found_time  
FROM evidence  
WHERE room = 'CEO Office';
```



Step 1: Where and When Did the Crime Happen?

Output

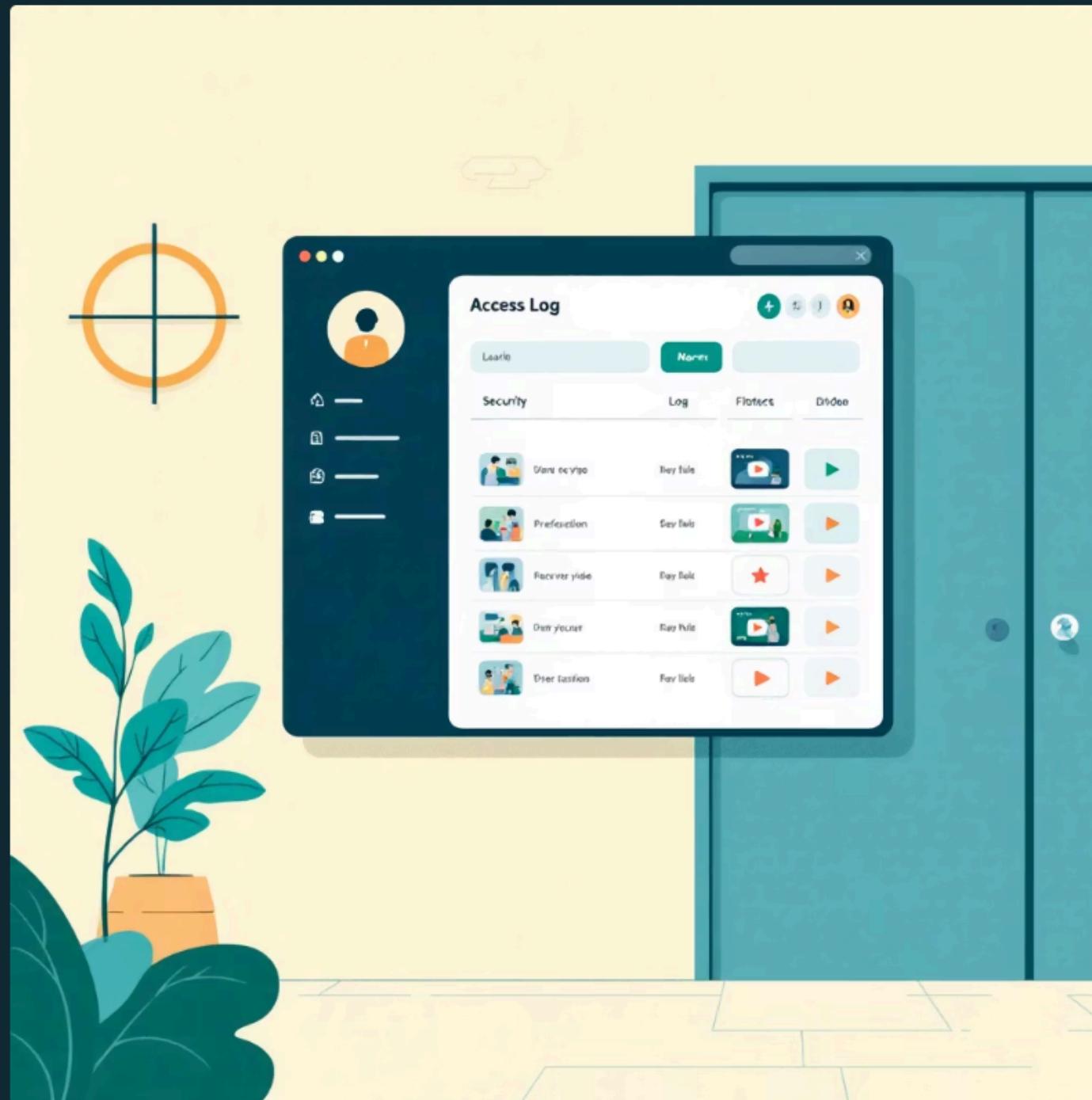
evidence_room	evidence_found	evidence_found_time
CEO Office	Fingerprint on desk	2025-10-15 21:05:00
CEO Office	Keypad swipe logs mismatch	2025-10-15 21:10:00

Key Finding: The crime likely occurred in the CEO Office shortly before 21:05, since investigators discovered evidence around that time. To more accurately determine the crime timing and identify suspects, the next steps will involve checking:

1. Keypad logs for employees who entered the CEO Office on or before 21:05 AND exited on or after 20:50 (present during the crime window).
2. False alibis that contradict keypad movement logs
3. Suspicious calls were made close to the crime time

Step 2: Who Was Inside the CEO's Office During the Crime?

We joined `keycard_logs` with `employees` to find who accessed the CEO Office during the murder window.



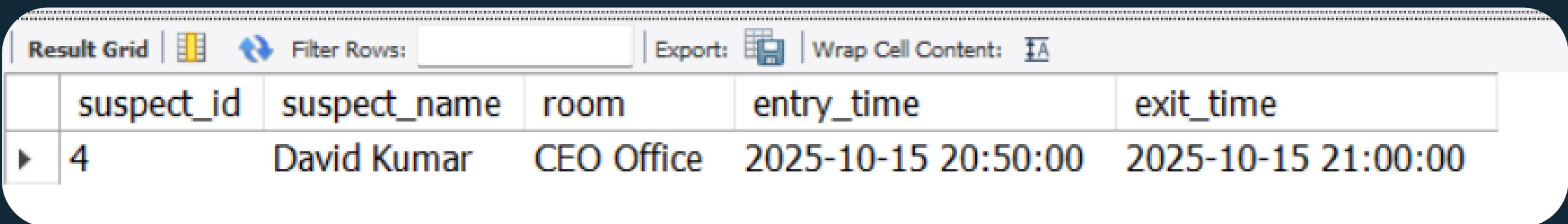
SQL QUERY

SELECT

```
k.employee_id AS suspect_id,  
e.name AS suspect_name,  
k.room,  
k.entry_time,  
k.exit_time  
FROM keycard_logs k  
JOIN employees e  
ON k.employee_id = e.employee_id  
WHERE k.room = 'CEO Office'  
AND k.entry_time <= '2025-10-15 21:05:00'  
AND k.exit_time >= '2025-10-15 20:50:00';
```

Step 2: Who Was Inside the CEO's Office During the Crime?

Output



A screenshot of a database query results grid. The grid has a header row with columns: suspect_id, suspect_name, room, entry_time, and exit_time. Below the header is a single data row. The data row contains the values: 4, David Kumar, CEO Office, 2025-10-15 20:50:00, and 2025-10-15 21:00:00. The grid includes standard toolbar icons for Result Grid, Filter Rows, Export, and Wrap Cell Content.

	suspect_id	suspect_name	room	entry_time	exit_time
▶	4	David Kumar	CEO Office	2025-10-15 20:50:00	2025-10-15 21:00:00

Key Finding: To identify suspects, I checked the keycard logs for employees who:

1. entered the CEO Office on or before 21:05, and
2. exited on or after 20:50 (present during the crime window)

Only one employee matched this condition, making them the primary suspect based on physical presence.



Compared claimed locations from the `alibis` table against actual keycard logs.

Step 3: Alibi Verification With Actual Logs

SQL QUERY

```
SELECT
    a.employee_id AS suspect_id,
    e.name AS suspect_name,
    a.claim_time,
    a.claimed_location,
    COALESCE(k.room, 'No log recorded') AS actual_location
FROM alibis a
LEFT JOIN keycard_logs k
ON a.employee_id = k.employee_id
AND a.claim_time BETWEEN k.entry_time AND k.exit_time
JOIN employees e
ON a.employee_id = e.employee_id
WHERE k.room != a.claimed_location
OR k.room IS NULL;
```

Step 3: Alibi Verification With Actual Logs

Output

suspect_id	suspect_name	claim_time	claimed_location	actual_location
1	Alice Johnson	2025-10-15 20:50:00	Office	No log recorded
4	David Kumar	2025-10-15 20:50:00	Server Room	CEO Office
5	Eva Brown	2025-10-15 20:50:00	Marketing Office	No log recorded
6	Frank Li	2025-10-15 20:50:00	Office	No log recorded

Key Finding: I analyzed whether each suspect's claimed location at 20:50 matched their actual movement from keycard logs. Most suspects showed "No log recorded," meaning they were not in the CEO Office and therefore not relevant to the crime scene. However, the primary suspect claimed to be in the Server Room at 20:50 – but access logs proved they were inside the CEO Office at that exact time. This false alibi and intentional deception significantly increased suspicion against the primary suspect.

Step 4: Suspicious Call Activity around 20:50–21:00

I investigated the [calls table](#) for activity between 20:50 and 21:05.

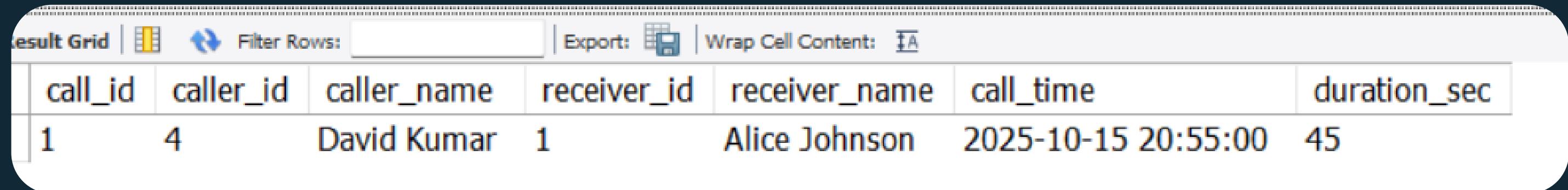
SQL QUERY

```
SELECT
    c.call_id,
    c.caller_id,
    e1.name AS caller_name,
    c.receiver_id,
    e2.name AS receiver_name,
    c.call_time,
    c.duration_sec
FROM calls c
JOIN employees e1
ON c.caller_id = e1.employee_id
JOIN employees e2
ON c.receiver_id = e2.employee_id
WHERE c.call_time BETWEEN '2025-10-15 20:50:00'
    AND '2025-10-15 21:00:00';
```



Step 4: Suspicious Call Activity around 20:50–21:00

Output



A screenshot of a database result grid titled "Result Grid". The grid has a header row with columns: call_id, caller_id, caller_name, receiver_id, receiver_name, call_time, and duration_sec. Below the header is a single data row: 1, 4, David Kumar, 1, Alice Johnson, 2025-10-15 20:55:00, 45.

call_id	caller_id	caller_name	receiver_id	receiver_name	call_time	duration_sec
1	4	David Kumar	1	Alice Johnson	2025-10-15 20:55:00	45

Key Finding:

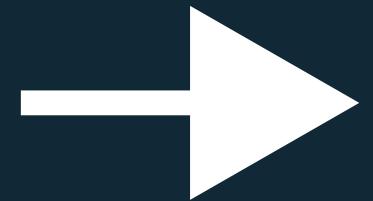
The primary suspect was inside the CEO Office close to the time of the murder and gave a false alibi by claiming to be in the Server Room at 20:50, and also made a suspicious call between 20:50 and 21:00 while being in the CEO Office, which strongly indicates that the primary suspect might be the killer.



Step 5: Connecting Evidence with Movements and Claims

I linked physical evidence from the CEO Office with the suspect's movements and false alibi.

SQL QUERY



```
SELECT
    emp.name AS suspect_name,
    k.room AS actual_location,
    a.claimed_location,
    a.claim_time,
    ev.description AS evidence_found,
    ev.found_time AS evidence_found_time
FROM evidence ev
JOIN keycard_logs k
    ON ev.room = k.room
JOIN employees emp
    ON k.employee_id = emp.employee_id
LEFT JOIN alibis a
    ON k.employee_id = a.employee_id
WHERE ev.room = 'CEO Office'
    AND k.entry_time <= ev.found_time
    AND k.exit_time >= '2025-10-15 20:50:00';
```

Step 5: Connecting Evidence with Movements and Claims

Output

	suspect_name	actual_location	claimed_location	claim_time	evidence_found	evidence_found_time
▶	David Kumar	CEO Office	Server Room	2025-10-15 20:50:00	Keypad swipe logs mismatch	2025-10-15 21:10:00
	David Kumar	CEO Office	Server Room	2025-10-15 20:50:00	Fingerprint on desk	2025-10-15 21:05:00

Key Finding:

I matched the physical evidence found in the CEO Office with the suspect's actual movements and false alibi. The evidence discovered at the crime scene, including fingerprints and keypad log mismatches, confirms that the suspect was present in the CEO Office and attempted to hide their involvement.

killer identified.

Step 6: Unmasking the Killer

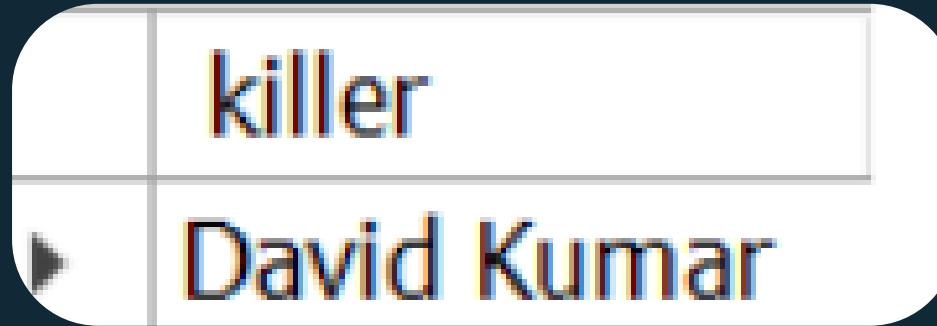
A final SQL query combined all conditions to identify the killer.

SQL QUERY

A white right-pointing arrow on a dark blue background.

Step 6: Unmasking the Killer

Output



Final Reveal: When all data points converged — movement logs, false alibi, suspicious call, and physical evidence — only one employee matched every condition:

👤 Name: David Kumar

👤 Employee ID: 4

🏢 Department: Engineering

🎯 Role: DevOps Engineer

The suspect was inside the CEO Office during the murder, lied about being in the Server Room, and made a phone call during the crime window — confirming that David Kumar is the killer behind the CEO's murder.

Case Conclusion — The Killer Revealed

Throughout this investigation, I analyzed four key data sources: evidence, keycard logs, alibis, and call records.

First, I determined that the crime occurred in the CEO Office shortly before 21:05. Next, I identified who was inside the CEO Office during the crime window (20:50–21:05) and found only one suspect. When verifying alibis, I discovered that this suspect falsely claimed to be in the Server Room at 20:50. I also found that the same suspect made a suspicious call during the crime window. Finally, physical evidence from the CEO Office — including fingerprints and keycard mismatches — confirmed their presence and attempted deception.

Therefore, all clues and SQL analysis conclusively identify:

👉 David Kumar (Employee ID: 4), DevOps Engineer — as the killer.

Case Closed – Thank You

The killer was identified using only SQL, demonstrating the power of data analysis in investigations.

