

SQL MURDER MYSTERY: "WHO KILLED THE CEO?"

The CEO of TechNova Inc. has been found dead in their office on October 15, 2025, at 9:00 PM.

Capestone Project



OBJECTIVE AND MISSION



The goal of this investigation is to determine who killed the CEO, where the crime happened, when it occurred, and how it was carried out. These four questions guide the entire mystery and help narrow down suspects step by step.

To solve it, we will use SQL to analyze keycard logs, phone calls, alibis, and evidence. By comparing these datasets and looking for inconsistencies, we can piece together the timeline and identify the person responsible.

DATASET

Table: employees

Column	Type	Description
employee_id	INT	Unique employee ID
name	VARCHAR	Full name of the employee
department	VARCHAR	Department of the employee
role	VARCHAR	Role or title

Table: keycard_logs

Column	Type	Description
log_id	INT	Log ID
employee_id	INT	ID of employee
room	VARCHAR	Room name
entry_time	TIMESTAMP	Time they entered
exit_time	TIMESTAMP	Time they left

Table: calls

Column	Type	Description
call_id	INT	Call ID
caller_id	INT	ID of caller
receiver_id	INT	ID of receiver
call_time	TIMESTAMP	When the call happened
duration_sec	INT	Duration in seconds

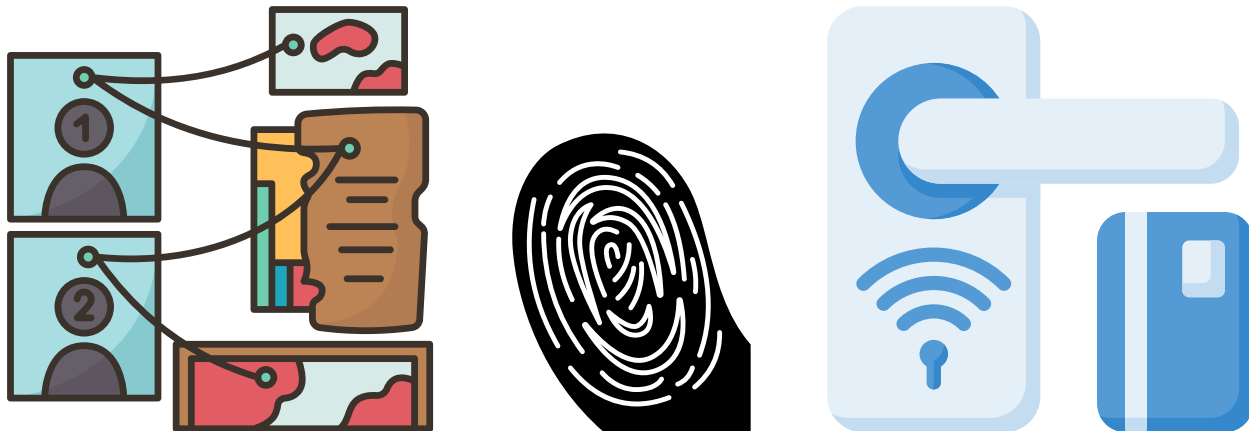
Table: alibis

Column	Type	Description
alibi_id	INT	Alibi record ID
employee_id	INT	Employee ID
claimed_location	VARCHAR	Where they said they were
claim_time	TIMESTAMP	When they claimed to be there

Table: evidence

Column	Type	Description
evidence_id	INT	Evidence ID
room	VARCHAR	Where evidence was found
description	VARCHAR	What was found
found_time	TIMESTAMP	When it was found

EVIDENCE FOUND BY POLICE



1

A fingerprint was found on the CEO's desk, suggesting someone had close physical contact with the scene.

2

The keycard swipe logs showed mismatched entries, indicating someone may have tampered with or lied about their movements.

3

An unusual access pattern was detected, pointing to suspicious activity around the time of the crime.

Who entered the CEO's Office close to the time of the murder?

```
SELECT e.employee_id, e.name, kl.entry_time, kl.exit_time
FROM employees AS e
JOIN keycard_logs AS kl
  On e.employee_id = kl.employee_id
WHERE room = 'CEO Office' AND kl.entry_time BETWEEN
'2025-10-15 20:50:00' AND '2025-10-15 21:00:00';
```

employee_id	name	entry_time	exit_time
4	David Kumar	2025-10-15 20:50:00	2025-10-15 21:00:00



Who claimed to be somewhere else but was not?

```
SELECT e.name, a.claimed_location AS 'They claim to be
here',
kl.room AS 'Actual location', kl.entry_time, kl.exit_time
FROM alibis AS a
JOIN keycard_logs AS kl
ON a.employee_id = kl.employee_id
JOIN employees AS e
ON a.employee_id = e.employee_id
WHERE a.claim_time BETWEEN kl.entry_time AND
kl.exit_time
AND a.claimed_location <> kl.room;
```

name	They claim to be here	Actual location	entry_time	exit_time
David Kumar	Server Room	CEO Office	2025-10-15 20:50:00	2025-10-15 21:00:00

Who made or received calls around 20:50-21:00?

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

caller_id	receiver_id	Caller	Reciever	call_time
4	1	David Kumar	Alice Johnson	2025-10-15 20:55:00



What evidence was found at the crime scene?

```
SELECT room,  
description,  
found_time  
FROM evidence  
WHERE room = 'CEO Office';
```

room	description	found_time
CEO Office	Fingerprint on desk	2025-10-15 21:05:00
CEO Office	Keycard swipe logs mismatch	2025-10-15 21:10:00



Which suspect's movements, alibi, and call activity don't add up?

David Kumar becomes the prime suspect because several key findings point toward him:

- His claimed location does not match his actual location shown in the keycard logs,
- He made a suspicious phone call shortly before the crime, and
- His entry and exit times were unusually close to the moment of the murder.

These inconsistencies in his movements, alibi, and call activity strongly suggest that his story doesn't add up, making him the most likely person responsible.



**CASE SOLVED.
DAVID KUMAR
IS REVEALED
AS THE KILLER.**

