# Solved *the* SQL MURDER MYSTERY!


## Final Query:

```
SELECT p.id, p.name
FROM person p
   JOIN drivers_license dl ON p.license_id = dl.id
   JOIN facebook_event_checkin fec ON p.id = fec.personn_id
   JOIN income inc ON inc.ssn = p.ssn
   WHERE fec.event_name = "SQL Symphony Concert"
   AND dl.car_make = "Tesla"
   AND dl.car_model = "Model S"
   AND dl.height BETWEEN 65 AND 67
ORDER BY inc.annual_income DESC LIMIT 1;
```

*Crime Reports*

*Gym Clues*

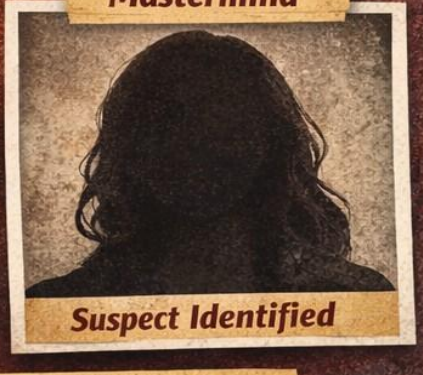

*Plate Search*

*Concert Check-ins*

**Murderer**

Suspect Identified

**Mastermind**



Suspect Identified

**ANSWER: SUSPECT IDENTIFIED!**

mystery.knightlab.com | SQL Analysis & Investigation | GitHub Solution Included

*CASE STUDY BY VAIBHAV DHAKULKAR*

# THE SQL MURDER MYSTERY

This case study documents the complete step-by-step investigation of the SQL Murder Mystery challenge. The goal is to identify the murderer and the mastermind using pure SQL queries.

Challenge Link: https://mystery.knightlab.com/

## STEP 1: CRIME REPORT ANALYSIS

```
SELECT *
FROM CRIME_SCENE_REPORT
WHERE DATE = 20180115
  AND TYPE = 'MURDER'
  AND CITY = 'SQL CITY';
```

DESCRIPTION: This query retrieves the crime report to understand the location, date, and basic details of the murder case.

## STEP 2: IDENTIFYING WITNESSES

```
SELECT P.ID, P.NAME, I.TRANSCRIPT
FROM PERSON P
JOIN INTERVIEW I ON P.ID = I.PERSON_ID
WHERE P.ID IN (
    SELECT ID
    FROM PERSON
    WHERE ADDRESS_STREET_NAME = 'NORTHWESTERN DR'
    ORDER BY ADDRESS_NUMBER DESC
    LIMIT 1
)
OR P.ID IN (
    SELECT ID
    FROM PERSON
    WHERE ADDRESS_STREET_NAME = 'FRANKLIN AVE'
      AND NAME LIKE 'ANNABEL %'
);
```

OUTPUT SUMMARY: Witness statements revealed key clues including a gym bag, gold membership, partial license plate, and a specific gym visit date.

DESCRIPTION: This step extracts witness interviews based on addresses mentioned in the crime report.

# STEP 3: IDENTIFYING THE SUSPECT

```
SELECT P.ID, P.NAME
FROM PERSON P
JOIN DRIVERS_LICENSE DL ON P.LICENSE_ID = DL.ID
JOIN GET_FIT_NOW_MEMBER GFNM ON GFNM.PERSON_ID = P.ID
WHERE GFNM.MEMBERSHIP_STATUS = 'GOLD'
  AND GFNM.ID LIKE '%48Z%'
  AND DL.PLATE_NUMBER LIKE '%H42W%';
```

OUTPUT: Jeremy Bowers identified as the murderer.

DESCRIPTION: Combined gym membership and vehicle details to narrow down the suspect.

## STEP 4: MURDERER INTERVIEW

```
SELECT *
FROM INTERVIEW
WHERE PERSON_ID IN (
    SELECT P.ID
    FROM PERSON P
    JOIN DRIVERS_LICENSE DL ON P.LICENSE_ID = DL.ID
    JOIN GET_FIT_NOW_MEMBER GFNM ON GFNM.PERSON_ID = P.ID
    WHERE GFNM.MEMBERSHIP_STATUS = 'GOLD'
      AND DL.PLATE_NUMBER LIKE '%H42W%'
);
```

DESCRIPTION: The interview revealed that the murderer was hired by a wealthy woman with specific physical traits and event attendance.

# STEP 5: IDENTIFYING THE MASTERMIND

```
SELECT P.ID, P.NAME
FROM PERSON P
JOIN DRIVERS_LICENSE DL ON P.LICENSE_ID = DL.ID
JOIN FACEBOOK_EVENT_CHECKIN FEC ON P.ID = FEC.PERSON_ID
JOIN INCOME INC ON INC.SSN = P.SSN
WHERE FEC.EVENT_NAME = 'SQL SYMPHONY CONCERT'
  AND DL.HAIR_COLOR = 'RED'
  AND DL.CAR_MAKE = 'TESLA'
  AND DL.CAR_MODEL = 'MODEL S'
  AND DL.HEIGHT BETWEEN 65 AND 67
ORDER BY INC.ANNUAL_INCOME DESC
LIMIT 1;
```

FINAL RESULT: Miranda Priestly identified as the mastermind behind the crime.

DESCRIPTION: Final validation using multiple joins, event history, and income data.