**SQL Murder Myster**

Solving the SQL Murder Mystery

**1. Setting Up the Connection:**

Import the necessary module for database connection in Python, such as sqlite3.

Establish a connection to the police department's database using sqlite3.connect().

Confirm access to the required tables for the investigation.

# import sqlite3

# 

# # Establish connection to the database

# conn = sqlite3.connect('police\_database.db')

# **2. Retrieve Crime Scene Report:**

# Query the database to retrieve the crime scene report for the murder on Jan.15, 2018, in SQL City.

# Gather all available details from the report.

# # Query to retrieve the crime scene report

# crime\_report\_query = "SELECT \* FROM crime\_reports WHERE date = '2018-01-15' AND city = 'SQL City';"

# 

# # Execute the query

# crime\_report = conn.execute(crime\_report\_query).fetchall()

# **3. Witness Personal Details:**

# Retrieve personal details of witnesses involved in the case, including names, addresses, and any other relevant information.

# # Execute the query with the crime ID from the crime report

# witness\_details = conn.execute(witness\_details\_query, (crime\_report[0]['crime\_id'],)).fetchall()

# **4. View Witness Interviews:**

# Access recorded interviews of witnesses conducted after the murder.

# Gather insights into their statements and potential clues.

# 

# # Query to retrieve witness interviews

# witness\_interviews\_query = "SELECT \* FROM interviews WHERE witness\_id IN (SELECT witness\_id FROM witnesses WHERE crime\_id = ?);"

# 

# # Execute the query with the crime ID from the crime report

# witness\_interviews = conn.execute(witness\_interviews\_query, (crime\_report[0]['crime\_id'],)).fetchall()

# 

# 

# **5. Check Gym Database:**

# Investigate the gym database using details from the crime scene report and witness interviews.

# Look for any gym-related information that might be relevant.

# 

# # Query to check gym database

# gym\_details\_query = "SELECT \* FROM gym\_records WHERE ...;"

# 

# # Execute the query using relevant details from the crime report and witness interviews

# gym\_details = conn.execute(gym\_details\_query).fetchall()

# 

# 

# **6-7. Check Car Details and Personal Details:**

# Examine car details associated with the crime scene and retrieve information about the vehicles present.

# Identify and collect personal details mentioned in the previous queries.

# 

# # Query to check car details

# car\_details\_query = "SELECT \* FROM cars WHERE ...;"

# 

# # Execute the query using relevant details from the crime report

# car\_details = conn.execute(car\_details\_query).fetchall()

# **8. Membership Status at the Gym:**

# Determine who is identified in the previous queries as a member of the gym.

# Utilize the gym database to confirm their membership status.

# 

# # Query to determine gym membership status

# membership\_status\_query = "SELECT \* FROM gym\_members WHERE ...;"

# 

# # Execute the query using relevant details from the gym records

# membership\_status = conn.execute(membership\_status\_query).fetchall()

# 

# 

# **9. Analyze and Draw Conclusions:**

# Analyze collected data, including crime scene reports, witness interviews, gym records, and car details.

# Draw conclusions or hypotheses based on the information available.

# 

# # Analyze data and draw conclusions

# # Your analysis and conclusions here

# **10. Document Findings:**

# Summarize key details that lead to conclusions.

# Document any insights gained from the SQL investigation.

# 

# # Document findings and insights

# # Your documentation here

# **11. Prepare a Report:**

# Prepare a detailed report for the detective, summarizing events, suspects, and conclusions.

# Present evidence and rationale behind findings.

# 

# # Prepare a detailed report

# # Your report preparation here

# **12. Reflect on the Investigation:**

# Reflect on the investigative process.

# Share challenges encountered and how they were overcome.

# Reflect on the case-solving experience.