FORENSIC INVESTIGATION REPORT

Murder of Roland Greene - SQL Database Analysis

CASE INFORMATION

Case Number: FBU-2024-RG001
Victim: Roland Greene (Famous Art Collector)
Location: Vault Room, Private Estate
Date of Death: 8:00 PM during Private Estate Auction
Investigation Unit: Forensic Bureau of Investigation (FBU)
Lead Analyst: Forensic Data Analyst
Status: SOLVED - Suspect Identified

EXECUTIVE SUMMARY

This report presents the findings of a comprehensive forensic investigation into the murder of Roland Greene, a famous art collector, who was found dead in the Vault Room at 8:00 PM during a private estate auction. The investigation utilized advanced SQL database analysis and exploratory data analysis (EDA) techniques to examine access logs, call records, and forensic timeline data.

Through systematic database interrogation and evidence correlation, the investigation successfully identified **Samira Shaw** as the primary suspect. The case demonstrates the effectiveness of timestamp analysis, relational joins, and investigative reasoning in solving complex murder cases.

CASE BACKGROUND

Incident Details:

- **Victim:** Roland Greene - Famous art collector
- **Event:** Private estate auction with 30 guests
- **Last Contact:** Phone call received at 7:55 PM (19:55)
- **Discovery:** Body found at 8:00 PM in Vault Room
- **Time Window:** 5-minute critical period between call and discovery

Investigation Challenges:

- All 30 guests claimed to have alibis
- Short 5-minute window for the murder

- Multiple individuals with access to the Vault Room
- Need to correlate multiple data sources for accurate timeline

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INVESTIGATION OBJECTIVES

Primary Mission:

- Determine who killed Roland Greene
- Identify prime suspects and provide evidence-based reasoning
- Analyze access logs for Vault Room entry patterns
- Correlate call records with access times
- Utilize forensic timeline data for supporting evidence

Data Sources:

- **Suspects List:** Complete roster of auction attendees
- **Access Logs:** Electronic entry/exit records for Vault Room
- **Call Records:** Phone communication logs with timestamps
- **Forensic Timeline:** Comprehensive event chronology

METHODOLOGY & TOOLS

Technical Approach:

- **Database Platform:** Microsoft SQL Server
- **Query Language:** T-SQL (CTEs, Joins, Filters)
- **Analysis Method:** Exploratory Data Analysis (EDA)
- **Reasoning Approach:** Deductive Reasoning

Investigation Steps:

1. Filtered access logs for successful entries into the Vault Room
2. Identified suspects who accessed the room successfully
3. Joined suspect details with access logs
4. Narrowed down individuals who entered before 8:00 PM
5. Correlated call logs with access times for suspicious patterns
6. Referenced forensic timeline for supporting evidence

KEY FINDINGS

Finding 1: Vault Room Access Analysis

Database analysis revealed **8 suspects** who successfully accessed the Vault Room. Further filtering identified those who entered before the critical 8:00 PM timeframe.

Finding 2: Pre-Murder Access Identification

Four individuals were identified as having accessed the Vault Room before 8:00 PM with no recorded exit:

- **Morgan Bennett**
- **Samira Shaw**
- **Victor Shaw**
- **Robin Ahmed**

🛑 CRITICAL FINDING: Primary Suspect Identified

SAMIRA SHAW is the primary suspect based on the following evidence:

- **Call Activity:** Made a call at 19:51:36 lasting 9 minutes
- **Access Time:** Vault Room entry at 19:52:36 (during active call)
- **Critical Overlap:** Was on phone call inside Vault Room during murder timeframe
- **Timeline Correlation:** Call duration places her in room at 8:00 PM when murder occurred

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SUSPECT ANALYSIS

Primary Suspect: Samira Shaw

Access Pattern: Entered Vault Room at 19:52:36
Communication Activity: Phone call from 19:51:36 for 9 minutes
Critical Evidence: Call began 1 minute before room entry
Timeline Implication: Was actively on phone inside Vault Room when murder occurred

Additional Suspects Under Investigation:

Suspect Name	Access Status	Entry Time	Exit Record	Risk Level
Morgan Bennett	Successful Access	Before 8:00 PM	No Exit Recorded	Medium
Samira Shaw	Successful Access	19:52:36	No Exit Recorded	**HIGH**
Victor Shaw	Successful Access	Before 8:00 PM	No Exit Recorded	Medium
Robin Ahmed	Successful Access	Before 8:00 PM	No Exit Recorded	Medium

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FORENSIC TIMELINE RECONSTRUCTION

Critical Timeline - December Evening

- **19:51:36** - Samira Shaw initiates phone call (9-minute duration)
- **19:52:36** - Samira Shaw accesses Vault Room (during active call)
- **19:55:00** - Roland Greene receives final phone call
- **20:00:00** - Roland Greene found dead in Vault Room
- **20:00:36** - Samira Shaw's call would have ended (9-minute duration)

Timeline Analysis:

The overlap between Samira Shaw's 9-minute phone call and her presence in the Vault Room creates a direct correlation with the murder timeframe. Her call began at 19:51:36, she entered the room at 19:52:36, and remained on the call through 8:00 PM when the murder occurred.

SQL ANALYSIS SUMMARY

Database Query Strategy:

sql

```sql
-- Filter successful Vault Room access
SELECT * FROM access_logs
WHERE room = 'Vault Room'
AND status = 'SUCCESS'
AND entry_time < '20:00:00';
```

sql

```sql
-- Join access logs with suspect details
SELECT s.name, s.suspect_id, a.entry_time, a.exit_time
FROM suspects s
JOIN access_logs a ON s.suspect_id = a.person_id
WHERE a.room = 'Vault Room'
AND a.status = 'SUCCESS'
AND a.entry_time < '20:00:00';
```

sql

```sql
-- Correlate call records with access times
SELECT s.name, c.call_start, c.call_duration, a.entry_time
FROM suspects s
JOIN call_records c ON s.suspect_id = c.caller_id
JOIN access_logs a ON s.suspect_id = a.person_id
WHERE a.room = 'Vault Room'
AND c.call_start <= a.entry_time
AND (c.call_start + c.call_duration) >= '20:00:00';
```

EVIDENCE CORRELATION

Digital Evidence Analysis:

Evidence Type	Source	Timestamp	Relevance
Access Log Entry	Electronic Security System	19:52:36	Places Samira in Vault Room
Phone Call Record	Telecommunications Log	19:51:36 (9 min)	Establishes communication during critical period
Victim's Final Call	Phone Records	19:55:00	Last known contact before murder
Body Discovery	Forensic Timeline	20:00:00	Establishes time of death

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CONCLUSION

CASE SOLVED: Based on comprehensive SQL database analysis and forensic timeline reconstruction, **Samira Shaw** has been identified as the perpetrator of Roland Greene's murder.

Key Evidence Summary:

- Samira Shaw was physically present in the Vault Room during the murder timeframe
- Her phone call activity correlates directly with the crime timeline

- The overlap of her call duration and room access places her at the scene during the critical 5-minute window
- No exit record exists, confirming her presence throughout the incident

Investigation Outcome:

This case demonstrates the power of SQL-based exploratory data analysis in solving complex criminal investigations. Through systematic timestamp analysis, relational database joins, and investigative reasoning, the investigation successfully narrowed down 30 suspects to 4 prime candidates and ultimately identified the perpetrator.

RECOMMENDATIONS

Immediate Actions:

- Issue arrest warrant for Samira Shaw
- Secure additional physical evidence from Vault Room
- Obtain detailed phone records for call content analysis
- Interview remaining suspects to gather additional testimony

Future Investigative Protocols:

- Implement real-time access monitoring for high-security events
- Develop automated timestamp correlation systems
- Enhance database integration for multi-source evidence analysis
- Create standardized SQL forensic investigation templates

TECHNICAL METHODOLOGY

This investigation utilized advanced SQL techniques including:

- **Common Table Expressions (CTEs)** for complex query organization
- **Inner and Left Joins** for cross-referencing multiple data sources
- **Temporal Filtering** for precise timestamp analysis
- **Conditional Logic** for suspect classification
- **Exploratory Data Analysis** for pattern recognition

INVESTIGATION TEAM

Lead Forensic Data Analyst
Forensic Bureau of Investigation
Date: 2024

Supervising Detective
Criminal Investigation Division
Date: 2024

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