Project Report: Crime Record & Investigation Database

1. Introduction

The Crime Record & Investigation Database project was designed to store and manage investigation data. It tracks cases, officers, suspects, and evidence, supporting law enforcement reporting and analysis. The database was implemented using MySQL Workbench.

2. Abstract

The project models a policing system database. It captures officers, suspects, evidence, and case assignments. Indexes, joins, and views were created for workload analysis and case tracking. A trigger was added to maintain chain-of-custody logs automatically for evidence.

3. Tools Used

- MySQL Workbench for schema design and queries
- dbdiagram.io / Graphviz for ER diagrams
- SQL scripts for schema, data insertion, and queries

4. Steps Involved in Building the Project

- 1. Identification of entities (Officers, Cases, Suspects, Evidence).
- 2. Designing ER diagram with PK/FK relationships.
- 3. Writing CREATE TABLE statements and adding indexes.
- 4. Inserting dummy investigation records.
- 5. Writing SQL queries for solved/unsolved cases and officer workloads.
- 6. Creating views for case summaries.
- 7. Adding triggers to maintain evidence chain-of-custody.
- 8. Generating summary reports.

5. Conclusion

The Crime Record & Investigation Database provides a digital foundation for law enforcement data management. It highlights advanced SQL concepts including indexing, triggers, and views. This project strengthens skills in database normalization, security, and reporting.