Problem Statement:

A law enforcement evidence database system is used to efficiently and securely store all relevant information and organization of all evidence that has been submitted during cases, including allowing an officer to check where to find evidence necessary to their case.

Objectives of the System:

The objectives of evidence database system are to provide a modern cost-efficient technology application that could be used at under-funded police departments that have not had the budget to modernize their evidence cataloging methods that are still reliant upon file cabinets. The reality of how taxes are used to fund law enforcement agencies causes distinct disadvantages for rural communities when it comes to funding, and human resources so my main hope for this would be helping increase the efficiency of those departments that would be able to benefit from the efficiency an electronic database would provide.

- Search for evidence by unique case-number.

- Search for evidence by type of crime.

- Search for evidence by submitting officer.

- Search for evidence by location of discovery.

- Search for evidence by date

- Search for evidence by category (narcotics, stolen property, weapons, vehicle, biological)

- Perform Joins to determine if evidence share any commonalities.

Typical Customers:

- Officer
- Sherriff
- Support Personnel

Project Planning and Development Approach:

1. Software (Front-end: Access, Back-end: Database, MySQL)
2. Hardware (Desktop, Monitor, Keyboard, Mouse, Desk)
3. Network (To increase the security of the system the desktop will only access data on the desktop without access to the internet in an attempt to completely remove the potential for any hacking mean to alter the very sensitive data. Both Access and MySQL are capable of being ran in offline mode)

Development Plan:

W[1-2]: Determine the appropriate front-end and back-end combination that will determine the structure.

W[3-4]: Identify all appropriate tables and attributes appropriate for each that will act as primary keys and foreign keys.

W[5-7]: Design and populate the database with a test record for each table that can be utilized for simple test queries.

W[8]: Test the tables that have been completed and test their referential integrity with queries.

W[9-11]: Implement remaining tables and populate them with diverse records. Stress test the system with more complex queries. Design system for locker system to identify the physical locker each piece of evidence was placed into.

W[12-14]: Work on potentially adding the ability to catalog vehicle evidence with an impound location identification system. Continue to add more unique records and officers. Look into potential for precinct/district identification for officers to showcase use by a larger organization. Work on report exporting functions on access to provide reports and statistics on evidence inside the database.

W[15]:   Record demo of final database for final project submission.