

# **Task Outline**

## **Data Collection and Database Setup:**

- Create a MySQL database to store training data.
- Define the table structure to store the information provided in your crime information.
- Insert the data into the database.

## **dataProcessing.py Module:**

- Create a Python module named dataProcessing.py to analyze training data and prepare it for the model.
- Implement functions to calculate obedient, confidence score, emotion score, consistency score, and innocence score based on your guidelines.
- Calculate and return the expected outcome (Criminal: Yes or No) for each set of input data.

## **SENTIMENT ANALYSIS.py Module:**

- Create a Python module named SENTIMENT\_ANALYSIS.py for natural language processing.
- Implement functions to analyze the responses of suspects and witnesses.

- Calculate emotion scores and consistency scores.
- Compare answers to different versions of questions to calculate consistency scores.
- Calculate innocence scores based on witnesses' views and comments.

### **crime.py Code Integration:**

- Modify the crime.py code to use the functions and modules created in dataProcessing.py and SENTIMENT\_ANALYSIS.py.
- Implement an interface for suspects to enter their information and questions.
- Use sentiment analysis to calculate obedient, confidence score, emotion score, and consistency score in the background.
- Implement an interface for witnesses to provide views and comments.
- Use sentiment analysis to calculate innocence scores.
- Make a final decision on whether a suspect is a criminal based on the provided criteria.

### **Database Interaction in crime.py:**

- Modify the crime.py code to retrieve data from the database instead of a CSV file.
- Use exception handling to catch and handle SQL exceptions that may occur during database interactions.
- Ensure the system load data entered by suspect, admin and their subsequent outcome to the database to be part of the training data.
- Ensure the model learn continuously

### **Testing and Deployment:**

- Test the complete system to ensure it works as expected.
- Deploy the system for use in a real-world scenario.

### **Documentation and Licensing:**

- Provide documentation and a README file explaining how to use the system.
- Use a GNU General Public License or a suitable open-source license for your code.
- Implement each task step by step and test your code thoroughly to ensure its functionality and accuracy.