Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Project Name	**Crime Vision: Advanced Crime Classification with Deep Learning**

Functional Requirements:

Functional Requirement (Epic)	**priority**
The system must accept crime scene images as input for classification.	High
The system must accept audio recordings as input for classification	High
The system must accept text documents (e.g., police reports) as input for classification.	High
The system must preprocess input data to normalize and clean it for deep learning algorithms.	High
The system must extract relevant features from the preprocessed data for classification.	High
The system must train a deep learning model using labeled crime scene data.	High
The system must support multiple crime types for classification, such as theft, assault, fraud, etc.	High
The system must provide accurate crime classification results based on the trained model.	high
The system must handle real-time inference of crime classification for efficient decision-making.	High
The system must periodically update the deep learning model with new labeled data for improved accuracy.	Medium
The system must provide visualizations and statistics of crime patterns and trends for analysis.	Medium
The system must integrate with existing law enforcement systems, such as case management or crime databases.	High
The system must ensure data security and privacy in handling sensitive crime scene data.	Medium
The system must have scalability to handle increasing volumes of crime scene data.	High
The system must have high availability to minimize downtime and ensure uninterrupted service.	Medium
The system must have robust error handling and logging mechanisms for troubleshooting and maintenance.	Medium

Non-functional Requirements:

Non-Functional Requirement	Description
Usability	The system should have a user-friendly interface and intuitive interactions to facilitate ease of use for various user roles.
Security	The system should ensure the security and confidentiality of crime scene data, following industry best practices and standards.
Reliability	The system should be highly reliable, with minimal downtime and interruptions in service.
Performance	The system should provide real-time or near real-time crime classification to enable timely decision-making.
Availability	It's recommended to explore relevant industry solutions, research publications, government initiatives, and open-source projects to gain insights into the availability and accessibility of such systems.
Scalability	The system should be able to handle large volumes of crime scene data and user requests without performance degradation.