

## **IISE DAIS Student Mobile/Web App Competition Proposal**

### **PIMS: Police Investigation Management System**

#### **Project Overview**

The Police Investigation Management System (PIMS) is a modern, web-based solution aimed at transforming the investigative workflows of law enforcement agencies. It streamlines case management, automates critical processes, and securely centralizes all evidence and documentation. The system enables efficient officer assignment, ensures proper tracking of investigative activities, and provides mobile access for real-time updates. By improving operational efficiency, security, and accessibility, PIMS accelerates case resolutions while upholding the integrity of investigations. With features like automated task management, seamless integration with external systems, and secure evidence handling, PIMS ensures that all investigative steps are accurately documented. Its hierarchical lead management structure allows investigators to track case progression effortlessly while maintaining the full hierarchy of each investigative step to preserve the order and integrity of the investigation. Designed for usability and adaptability, PIMS empowers law enforcement to handle complex cases effectively and collaboratively.

#### **Project Description**

The Police Investigation Management System (PIMS) is a web-based platform created to enhance the efficiency and accuracy of law enforcement investigations. It introduces a structured lead management system where each "lead" represents an actionable piece of information or evidence that advances an investigation. Leads are assigned to officers, tracked in real time, and linked to lead return documents, ensuring proper documentation and traceability. The system dynamically generates additional leads as investigations progress, providing a seamless workflow for case management.

PIMS securely stores all case data, including videos, images, and audio files, in a cloud-based environment, ensuring easy access and safeguarding sensitive information. The system automates repetitive tasks like case tracking, documentation and report generation, helping reduce administrative workloads and minimizing errors. The system also assists officers in identifying suspects' criminal backgrounds through internal databases or online sources such as news and social media. Additionally, it enables officers to flag important leads and review timeline entries for clear insights into case progress.

With its user-friendly interface, PIMS enables officers to access and manage case data from both the station and the field. Its mobile compatibility allows for real-time updates and evidence collection, making it a reliable tool for modern policing. PIMS empowers law enforcement to handle investigations with improved efficiency, accountability, and transparency.

#### **Application Features**

- **Lead Management:** Assign investigation steps (leads) to officers, track their progress in real-time, and ensure proper documentation and traceability for each lead.

- **Hierarchy Management:** Maintain a dynamic lead hierarchy, preserving the order and relationships between investigative steps, and allow modifications as new information or connections emerge.
- **Chain of Custody:** Log all actions performed on a lead to ensure evidence reliability and integrity throughout the investigation.
- **Automated Reports:** Generate detailed reports for prosecutors, establishing the validity of evidence and summarizing investigative progress.
- **Timeline Entries and Lead Flagging:** Enable the flagging of important leads and provide a centralized view of all case timelines, facilitating the identification of discrepancies and ensuring effective case tracking.
- **Cloud Storage:** Securely store both structured and unstructured data, including videos, audio files, and images, in cloud storage.
- **Notifications and Alerts:** Notify officers of assigned leads and updates via email or in-app notifications to ensure timely action.
- **Mobile Accessibility:** Enable real-time evidence management, updates, and collaboration directly from the field using mobile devices.
- **Access Control Management:** Implement user-based access to securely view and edit information, ensuring that each user can only access data relevant to their role while maintaining full oversight for case managers.
- **System Integration:** Connect with external tools and databases for enhanced evidence collection, suspect analysis, and information retrieval.
- **Suspect Background Checks:** Search suspect information using internal databases or external sources like public records and social media.

## Target Market and Communities

The Police Investigation Management System (PIMS) is designed for:

- **Law Enforcement Agencies:** Supporting local, state, and federal departments in streamlining investigations.
- **Criminal Justice Professionals:** Providing tools for efficient evidence management and case tracking.
- **Municipalities:** Helping modernize investigative processes for improved efficiency and accountability.

By offering an intuitive and reliable solution, PIMS enhances case resolution times and promotes transparency in law enforcement. It also benefits underserved communities by improving the effectiveness of justice systems.

## Roadmap

Deliverables and Specified Tasks	Dec(W1-W2)	Dec (W3-W4)	Jan(W1-W2)	Jan (W3-W4)	Feb(W1-W2)	Feb(W3-W4)
Requirement Gathering and Planning	1	1	0	0	0	0
Frontend Development	0	1	1	0	0	0
Backend Development	0	0	1	1	0	0
Database Integration	0	0	0	1	1	0
Testing and Debugging	0	0	0	0	1	1
Deployment and User Training	0	0	0	0	0	1