



A J INSTITUTE OF ENGINEERING & TECHNOLOGY
(A Unit of Laxmi Memorial Education Trust ®)
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Mini Project
Presentation on

"MedTrack: Unified Patient History Management System"

BATCH 7

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Problem Statement



1. **Fragmented Patient Records:** Patient history is often stored in different systems across hospitals, making it difficult for doctors to access a complete medical record.
2. **Inefficient Healthcare Delivery:** Delayed access to comprehensive medical history results in repeated tests, misdiagnoses, and inefficient treatment planning.
3. **Data Security Risks:** Many existing systems are not fully secure, risking unauthorized access to sensitive patient data.
4. **Lack of Interoperability:** Hospitals use different formats and standards for storing patient data, making integration across systems challenging.



Existing System

1. **Isolated Systems:** Hospitals and healthcare providers maintain independent databases, with no streamlined way to share data across institutions.
2. **Manual Record Sharing:** Doctors often have to request records manually from other hospitals, leading to delays in treatment.
3. **Inconsistent Data Standards:** Varying data standards like HL7 and FHIR are not universally adopted, making automated integration difficult.
4. **Limited Data Security:** Many existing systems lack comprehensive encryption and privacy measures, increasing the risk of data breaches.

Proposed System

1. **Centralized Platform:** A unified web-based platform where doctors can securely log in to access patient histories from multiple hospitals.
2. **Role-Based Access Control:** Ensures that only authorized personnel (doctors, medical staff) can access or modify patient data.
3. **Data Integration:** Integration with existing hospital systems using standards like HL7 and FHIR to enable seamless sharing of patient records.
4. **Enhanced Security:** Full encryption of patient data, with detailed audit trails to track access and modifications for transparency.
5. **User-Friendly Interface:** Simple dashboard for medical professionals to search, view, and analyze patient histories quickly and efficiently.

Objectives

1. **Centralized Access:** Provide a single platform for doctors to access patient records from multiple hospitals.
2. **Improve Healthcare Efficiency:** Reduce delays in treatment by allowing instant access to comprehensive patient history.
3. **Ensure Data Security:** Implement strong encryption and data protection protocols to safeguard patient information.
4. **Promote Interoperability:** Ensure seamless data exchange between hospitals using common standards like HL7 and FHIR.
5. **Provide Transparency:** Maintain audit logs for all interactions to ensure accountability and trust.



THANK YOU