

Medi-Vault ®

Safeguarding Health, Securing Lives!!

Group: D15

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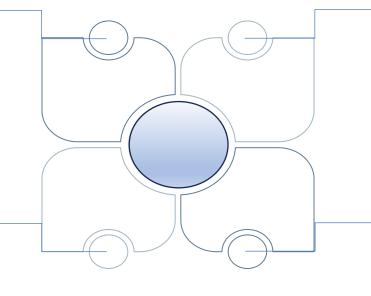
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PROBLEM STATEMENT

Monthly Delivery of Health Reports:

1.Cumbersome

Carrying bulky physical files is tedious and inefficient.

2.Insecure

Physical documents are prone to theft, loss, or unauthorized access.

3.Inefficient

X Retrieving past reports or missing files disrupts workflows.





Product-Based Project Development MediVault

What is MediVault?

- 🔐 Secure Platform
- Efficient Health Record Management

Why MediVault ?

Simplifies Record Management

Effortlessly organise and access health records without the hassle.

Reduces Reliance on Physical Documents

Say goodbye to bulky files and hello to digital convenience.

Improves Efficiency and Security Fast, reliable access with top-notch encryption to safeguard

sensitive data.

Supports Eco-Friendly, Paperless Operations Protect the planet by eliminating paper waste and embracing sustainability.





Key Features

Strong Encryption

Ensures rock-solid confidentiality for all sensitive health data, keeping it safe from unauthorized access.

Instant Access

Retrieve and share medical records anytime, anywhere with lightning speed, ensuring smooth operations.

Real-Time Sharing

Seamless collaboration with hospitals and medical teams, bridging gaps with just a few clicks.

Audit Trails

Tracks every access and activity, ensuring complete transparency and accountability.

Eco-Friendly

Eliminates the need for paper records, promoting sustainable and environmentally friendly practices.









Stacks 🖺





Secure Authentication



Data Storage



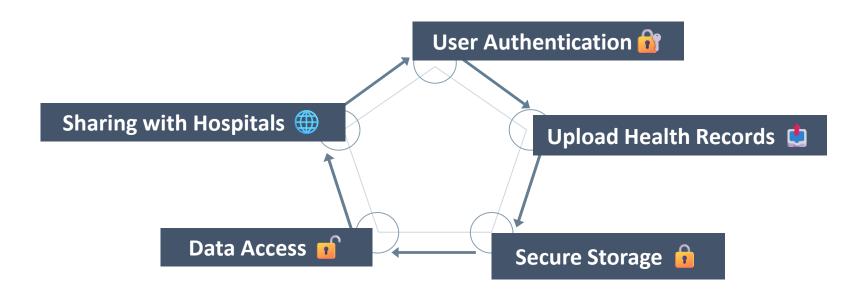
Back-end







Functionality Cycle of Patient





Welcome to MediVault

Please select your login type:

Login as Doctor

Login as Patient

Registration:

If the Doctor is a new one to obtain his/her Unique id. He/she has to register with our Medivault Using Registration process

Login Authentication:

When a Doctor creates an account in Medivault with its extended feature, Medivault automatically allots a Unique id to the Doctor.





Verified Authentication:

To access patient details, doctors must enter the patient's unique Aadhar number and the OTP generated at the time of access for secure authentication

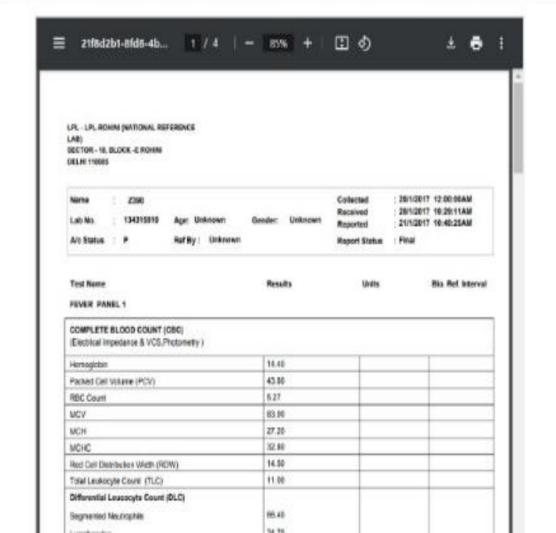




MediVault

New Entry

Z390.pdf



Logged in as Siva

Access Emergency Al

Novelty



Emergency Aid, Anytime, Anywhere.



A Calorie Calculator App

Al-powered chatbot



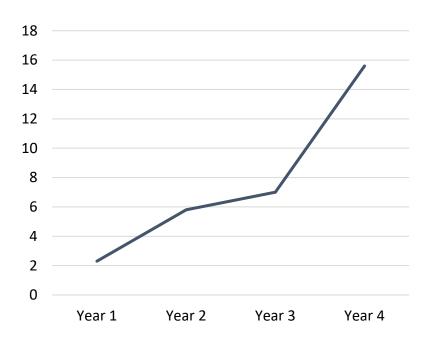
Instant health insights, anytime, anywhere.



Health report visualization tool.



Vital Scan I



VitalScan is a feature that takes user health reports as input, efficiently analyzes key health-related keywords, and visualizes the results. It provides users with a clear overview of their health status without the use of a database, simplifying the tracking and understanding of vital statistics through interactive charts and graphs.

Tech Stacks:





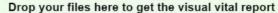


VitalScan: Your health insights, visualized 🤽 📈









Choose Files 2390.pdf

Print RBC
Red Blood Cells: 5.27
Platelets: 290.0
Hemoglobin: 14.40

Count

Report 1

Report 1

Report 2

Report 1

Al Insights

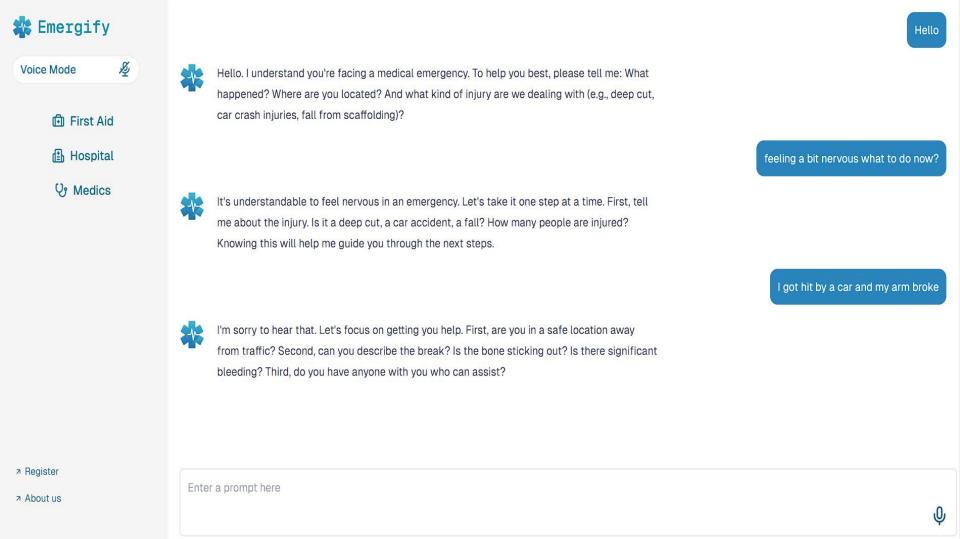
Get Insights

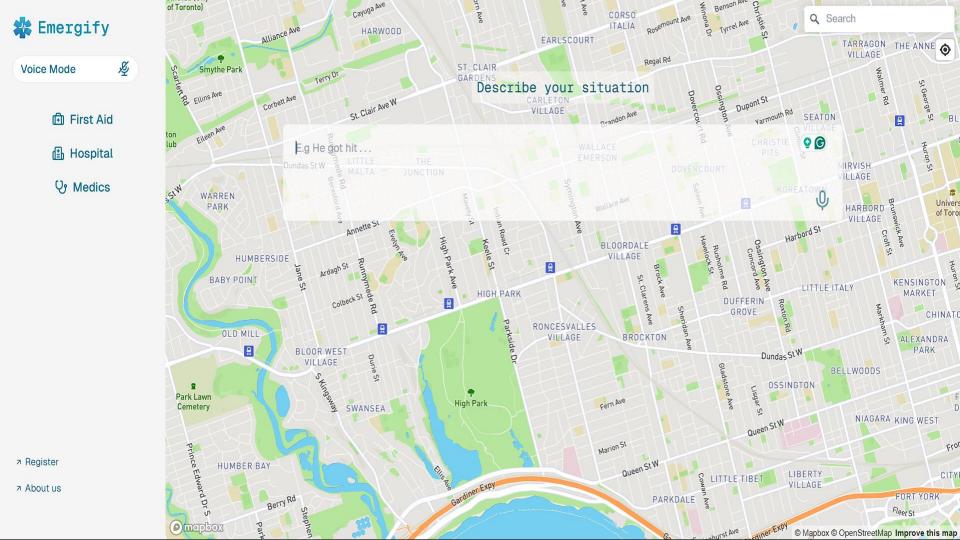
The provided data shows a 30-year-old male's RBC count fluctuating between 4.18 and 5.27 million/cu.mm over two months. While a single slightly low reading (4.18) is noted, the overall range suggests relatively normal RBC levels for a male. However, further investigation is warranted due to the fluctuation. A single data point is insufficient for a definitive diagnosis. More comprehensive blood tests (including hemoglobin, hematocrit, and a complete blood count (CBC) with differential) over a longer period are necessary to determine if there's an underlying cause for the variation. Recommendations: Consult a physician for a complete blood workup to assess overall blood health. This should include a comprehensive blood test to analyze other blood components and rule out any underlying conditions such as anemia, dehydration, or other hematological disorders. Precautions: Maintain a healthy lifestyle. This includes a balanced diet rich in iron-rich foods (lean meats, leafy greens, beans), adequate hydration, regular exercise, and sufficient sleep. Avoid smoking and excessive alcohol consumption. Address any potential underlying medical issues as determined by the physician.



- 1. Emergify is a comprehensive platform for quick and easy access to:
 - Emergency services
 - Vital health information
- 2. Offers powerful tools for:
 - Monitoring and managing health metrics
 - Connecting users to healthcare providers
 - •Ensuring timely responses during medical emergencies 🙋
- 3. Prioritizes user safety and convenience with:
 - Intuitive interface
 - •Real-time updates 🔔
- 4. Empowers individuals to:
 - Make informed health decisions
 - Respond effectively during crisis







KCalc

KCalc is a user-friendly feature designed to simplify calorie tracking by:

- Eliminating the need to check food labels.
- •Allowing users to enter the name of a dish to view the estimated calorie content per serving.
- •Logging calorie information like a digital logbook for future reference.

Additional Features:

- •Integrates with a fitness API to provide:
 - Personalized daily calorie targets.
 - •Recommended weight loss or gain goals based on user inputs and desired body type.

Benefits:

- •Helps users monitor and manage their nutritional intake.
- Supports fitness progress tracking and goal achievement.





NutriCheck

New Entry

19-05-23

18-05-23

19 May 2023



Access Token

V Link Google Fit

NutriCheck

New Entry

19 05 23

18-05-23

500ml

Matte Silver 100ML

Add Water



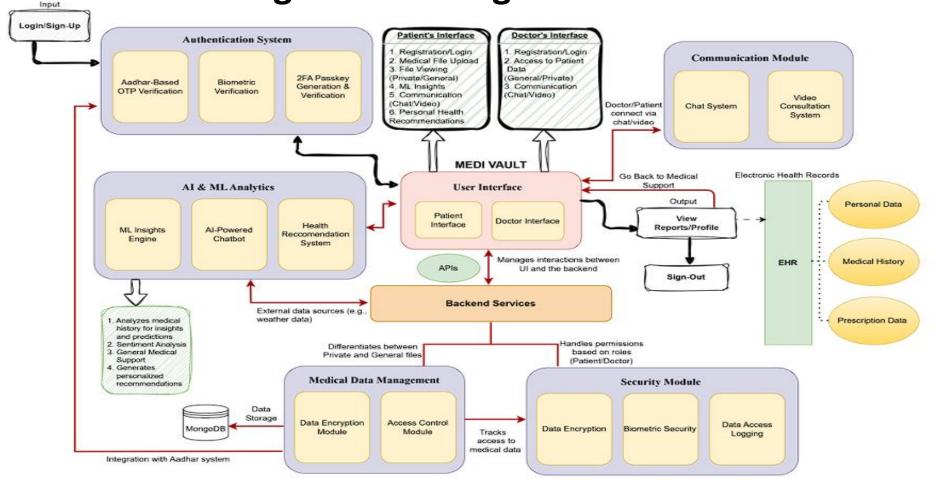
Access Token

Submit

Reset Intake



High-Level Design



FUTURE TASKS

Features

DESCRIPTION

Advanced authentication using unique physical traits

Biometric Safeguards



like fingerprints or facial recognition to provide secure and personalized access to the platform.

Adding features for seamless teleconsultations and video calls with healthcare professionals.

Telemedicine Connectivity



Enhancing VitalScan



Improvising techniques used to retrieve key data from the documents



Current Existing Systems

Product/Tool	Core Features	Strengths	Weaknesses	Comparison to Literature Findings	Use Case/Market
Google Health Cloud	 Al integration HIPAA-compliant cloud infrastructure Federated learning capabilities 	- Cutting-edge AI models - Advanced privacy- preserving data analytics	- High dependency on Google ecosystem	Implements federated learning for analytics, aligning with literature on IoMT security and privacypreserving methods.	Research institutions, tech-savvy healthcare organizations
Microsoft Azure for Health	- Blockchain support - Federated learning - Multi-factor authentication	- Enterprise-level scalability - Strong compliance features	- Complex implementation for smaller setups	Fully integrates federated learning and IoMT device security, as emphasized in literature on secure healthcare architectures.	IoMT-heavy telehealth systems, large-scale healthcare setups
IBM Watson Health	- Al-powered analytics - Blockchain for secure data exchange - Cloud-based storage	- Advanced analytics - Strong focus on secure data storage	- Expensive - Challenging setup for smaller organizations	Incorporates blockchain and privacy-focused analytics, matching literature's focus on secure data transmission and storage.	Large-scale research, clinical trials, hospital networks
CyberMDX	- IoMT device security - Real-time threat monitoring - Access control for connected devices	- Real-time IoMT security - Specialized in IoMT environments	- Limited focus on broader EHR or federated learning	Aligned with IoMT security needs and federated learning approaches for devicespecific data protection.	IoMT-reliant healthcare systems
TrueVault	- API-based secure data storage - HIPAA-compliant encryption	- Customizable and lightweight - Affordable for small organizations	- Limited scalability	Addresses secure storage as noted in literature but lacks federated learning for analytics.	Small-scale healthcare apps and startups



Thank You!!

