

HEALTH TRAIL

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Abstract: An app which provides solution for an enhanced treatment regime. PHR is an electronic application through which individuals can access, manage and share their health information with others who are authorized to do so in a private, secure, and confidential environment. A tool for collecting, tracking, analyzing summarizing and sharing important, up-to date information about an individual health.

I. INTRODUCTION

A simple, intuitive and ubiquitous approach to capture a patient's health profile. PHR with **Big Data Analytics** enabling a quicker, accurate diagnosis and treatment. **Interoperable PHR system** can be integrated with any standards compliant Health Information System. **Risk assessment** for chronic ailments like Asthma, Cancer, Cardio-vascular disease, Diabetes and Hypertension. The goal of PHR is to give an accurate summary of a patient's medical history, which can be accessed online. The PHR might include lab results, patient-reported outcome data, and other data.

The PHR will be designed to provide a simple and reliable way to store and convey one's medical history. The system will provide for secure transmission of information up to the system's endpoints at the application level. PHR system offers a reliable and safe interchange of consumer information regardless of which digital Consumer record tracking system the endpoints employ.

It will contain extensive documentation of the consumer medical records, which can be authored by the consumer or the consumer's healthcare provider(s). PHRS offers a reliable and safe interchange of patient (Consumer) information regardless of which digital patient (Consumer) record tracking system the endpoints employ.

II. HEALTH TRAIL FUNCTIONS

1. Manage demographic Information: - Managing personal details like age, gender, blood group etc.
2. Manage contact Information: - Managing personal contact information of the user securely.
3. Manage Health Information: - Taking information about the user's health to calculate further information.
4. Manage Clinical Visit List: - Keeping records on the user's visit to any clinics.
5. Manage Test Results: - Keeping a record of various test reports on cloud.
6. Manage Family History: - Keeping records of any family illness like diabetes, blood pressure, thyroid etc.
7. Manage Immunization List: - Keeping a record that the user has been immunized or not and what immunization taken.
8. Medical insurance detail: - Keeping records of user's insurance information.
9. Medical care providers: - Keeping records of user's personal doctors or nurses etc if any.
10. Convert the scanned images to Standard PHR: - Converting the images of reports or various documents uploaded by user into Standard PHR format.
11. Follow Healthcare standardized code sets and nomenclature: - The app strictly follows the standard guidelines which are already set.
12. Data interchange standards (HL7): - The app follows the set of international standards for transfer of clinical and administrative data between software applications used by various healthcare providers.
13. Secure data exchange: - The data exchange is safe and secure i.e., no leakage of personal information of user.
14. Reliability: - It is the probability of a piece of software operating without failure while in a specified environment over a set duration of time

III. BUSINESS OBJECTIVES

Data mining & analytics of personal health records & health trends.

Medical records in compliance with all International Standards like LOINC, ICD-10, Snomed, RxNorm, HL-7 & DICOM which will help with exchanging health data with other standards compliant Healthcare Information Systems (HIS).

Consumer should get alert of all notification.

Quick easy and user friendly search functionality for consumers.

Cloud-based Portal acting as a provider of Business Process as a Service (BPaaS).
Consumer health records available anytime and anywhere with broadband capability

IV. HEALTH TRAIL FEATURES

1. Access to the complete medical record.
2. Provide informational resources to help healthcare consumers understand any information within the medical record.
3. PHR will be organized in way that guides consumers to the most important information in their medical record including diagnosis, medications and results.
4. The PHR will allow consumers to identify and edit or annotate information in their medical record that is out of date or incorrect.
5. The PHR will allow consumers to access, update, correct and manage their history information
6. The PHR will allow consumers to access, update, correct and manage their medication list and immunization history.
7. The PHR will provide access to the medical record in case of an emergency
8. The PHR will provide access to treatment/service/care plans and the capability to download, print or share these documents.
9. The PHR will allow consumers to view multiple aspects of their medical information over time.

V. DOMAIN

Full Stack Development using MERN STACK

A. Technologies used

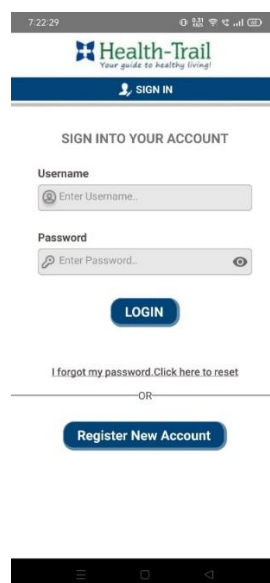
1. UI/UX Design using Figma
2. Web App Development using React
3. Mobile App development using React Native
4. Git Hub for Collaboration
5. Jira software for bug reporting and sprint management

B. Languages used

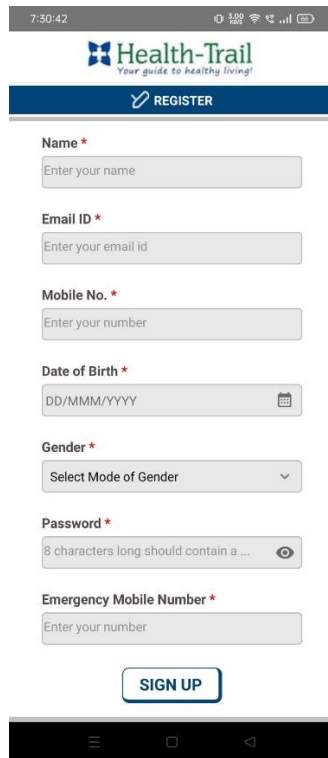
1. M- MongoDB
2. E- ExpressJS
3. R- ReactJS
4. N- NodeJS

1. SIGN IN

VI. FIGURES



2. REGISTER NEW ACCOUNT



7:30:42

Health-Trail
Your guide to healthy living!

REGISTER

Name *
Enter your name

Email ID *
Enter your email id

Mobile No. *
Enter your number

Date of Birth *
DD/MM/YYYY

Gender *
Select Mode of Gender

Password *
8 characters long should contain a ...

Emergency Mobile Number *
Enter your number

SIGN UP

3. HOME



7:22:56

Health-Trail
Your guide to healthy living!

53%

Name: Siddharth Ranjan
Gender: Female
Age: 38 Yrs
Email: sidsiddharth08@gmail.com

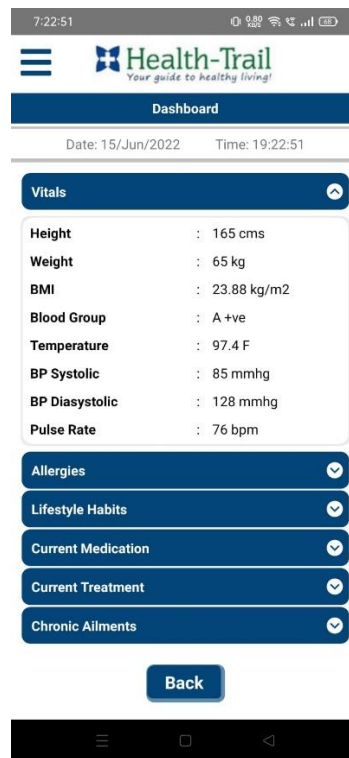
Dashboard

Emergency PEHR

Past Medical History Upload Document

Personal Health Declaration Video Consultancy

4. DASHIBOARD



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Dashboard

Date: 15/Jun/2022 Time: 19:22:51

Vitals

Height	: 165 cms
Weight	: 65 kg
BMI	: 23.88 kg/m2
Blood Group	: A +ve
Temperature	: 97.4 F
BP Systolic	: 85 mmhg
BP Diasystolic	: 128 mmhg
Pulse Rate	: 76 bpm

Allergies

Lifestyle Habits

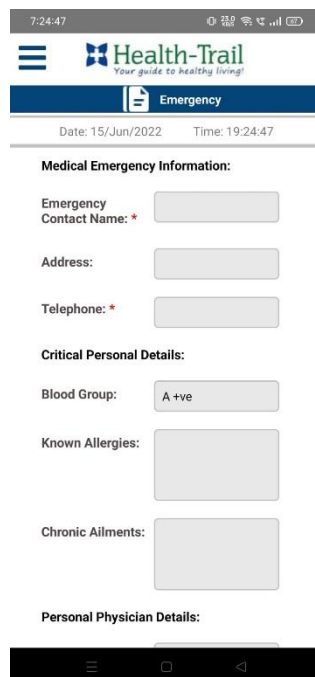
Current Medication

Current Treatment

Chronic Ailments

Back

5. EMERGENCY CONTACT INFORMATION



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Emergency

Date: 15/Jun/2022 Time: 19:24:47

Medical Emergency Information:

Emergency Contact Name: *

Address:

Telephone: *

Critical Personal Details:

Blood Group:

Known Allergies:

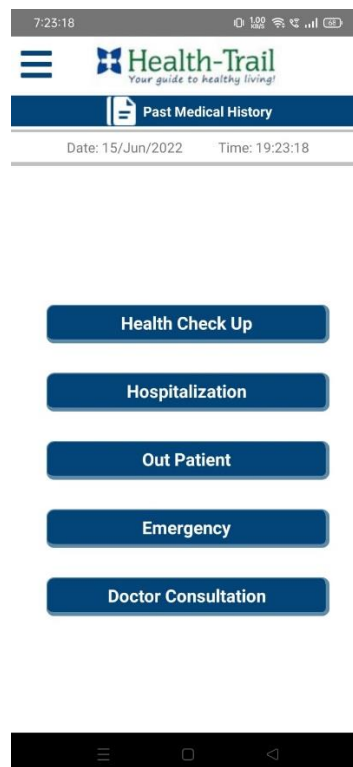
Chronic Ailments:

Personal Physician Details:

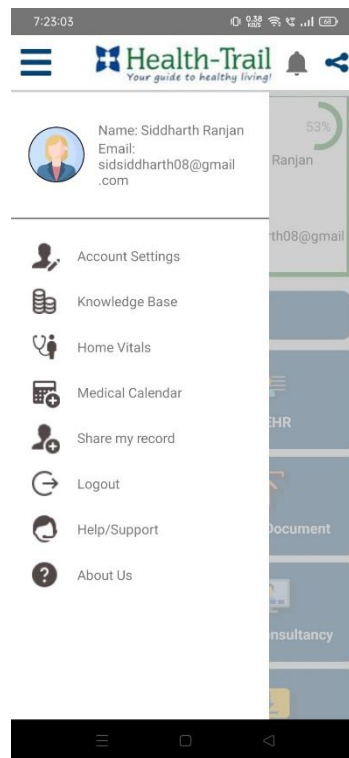
6. PEHR



7. PAST MEDICAL HISTORY



8. EXTRA

**VI. GLOSSARY OF TERMS****1. INTERNATIONAL CLASSIFICATION OF DISEASES (ICD)**

ICD-10 represents International Statistical Classification of Diseases and Related Health Problems, a medical classification list by the World Health Organization (WHO). It contains codes for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases

2. SYSTEMATIZED NOMENCLATURE OF MEDICINE -CLINICAL TERMS (SNOMED CT)

SNOMED CT is a standardized, multilingual vocabulary of clinical terminology that is used by physicians and other health care providers for the electronic exchange of clinical health information.

3. RXNORM

RxNorm is a set of drug concepts created and managed by the National Library of Medicine (NLM) and available through the UMLS's (Unified Medical Language System) Metathesaurus

4. LOGICAL OBSERVATION IDENTIFIERS NAMES AND CODES (LOINC)

LOINC is a database and universal standard for identifying medical laboratory observations.

5. HEALTH LEVEL-7 (HL7)

HL7 refers to a set of international standards for transfer of clinical and administrative data between software applications used by various healthcare providers.

6. DIGITAL IMAGING AND COMMUNICATIONS IN MEDICINE (DICOM)

DICOM Standard describes the means of formatting and exchanging medical images and image related information to facilitate the connectivity of medical devices and systems

VII. CONCLUSION

Health trail will give you one easy access through which you can keep a track of your health through a single click on your phones without even stepping out of your homes. A single stop area where it will help you to diagnose, talk to a doctor one to one, find nearby hospitals and clinics or even pharmacy or even a place where you can keep your health records safely and securely and easy to access.

**ACKNOWLEDGMENT**

This paper would have not been possible without the exceptional support of our coordinator Dr. Purnajit Chatterjee for his continued support, advice, and valuable inputs. We would also like to thank our guide Prof. Satisha G for comments that helped us t Health trail will give you one easy access through which you can keep a track of your health through a single click on your phones without even stepping out of your homes. A single stop area where it will help you to diagnose, talk to a doctor one to one, find nearby hospitals and clinics or even pharmacy or even a place where you can keep your health records safely and securely and easy to access. o make this paper. Lastly we would like to express our gratitude to our family our friends for their support and belief.

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2. HEALTH TRAIL BUSINESS PROPOSITION
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