



Blockchain based population descriptor sharing

Software Engineering 1

Group 2

PRESENTATION ROADMAP



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Customer Problem Statement

- Expensive health check-ups and inadequate facilities remain an obstacle to most people who wish to know the condition of their body and the ways to improve on it.
- Crucial inferences can be drawn by analyzing the blood pressure stats, blood sugar levels, sleeping patterns and so on. Most people are aware of the consequences but always relied on medical help, which led them to incur monetary expenses.
- We propose a digital ledger of sorts for the various users on the internet. This ledger contains data entered by the user. This data contains many important metrics such as BMI, blood pressure, blood sugar, sleep patterns etc.
- One of the critical needs of such an application is that any user should know how healthy or unhealthy he is as compared to others. He must be able to select different parameters (like sleep patterns, blood sugar levels, cholesterols etc.) and based on those parameters compare his data to the average/ general health of the other users. He can also select data for comparison from a specific location because geographically the health conditions considered normal can vary and also from a particular window of time, since people's health can vary in a location from time to time (eg. before and after the holiday season).
- People would be naturally apprehensive to allow their personal details to be shared with this application, due to the concern of getting hacked and so the system should offer guarantees against possible information leaks.

Functionalities



STORE PERSONAL HEALTH
DATA OF THE USER IN A
SECURE MANNER



ALLOW THE USER TO CARRY
OUT DATA ANALYSIS OF THE
HIS DATA AS COMPARED TO
THE DATA OF THE OTHER
USERS OF THE SOFTWARE.



ALLOW THE USER TO REPORT
BUGS AND SYSTEM PROBLEMS
TO THE ADMINISTRATOR



GIVE HEALTH
RECOMMENDATIONS BASED
ON DATA ANALYSED



ALLOW THE USER TO
COMMUNICATE WITH OTHER
USERS.

Tech stack and Usage



We plan to implement the blockchain in JavaScript, locally at first and then use a framework like Ethereum in the later stage to implement the final software.



We will be using the data visualization library, d3.js, to display the results of data analysis done by the user on the data.



The MySQL database is maintained on the AWS cloud.



The user interface and front-end implementation is done by using Bootstrap

Project Roadmap



Completed

- UC#1 Logging In
- UC#2 New Registration
- UC#3 User Data Addition
- UC#4 Validation of Data

Started

UC#5 Historical Data Representation

Pending

- UC#6 Comparison of Data Report
- UC#7 Health Recommendation
- UC#8 User Communication

