System Requirements:

-Modern web browsers (Chrome 49, Firefox 68, Edge 17, Safari 5.1) for frontend

-Modern system that can support NodeJS for backend

-Any system that can run an Ethereum client ex: Ganache GUI, Ganache CLI

Required Software:

- Ganache GUI
- Altair GraphQL Client
- MetaMask
- Ubuntu (or any Linux terminal; required for starting app)

Who We Are:

Team leader: Khalid Akash

Members: Smeet Kathiria, Eric Rivera, Rizwan Chowdhury, Dang Khoa Dinh, Nathaniel Arussy, Suva Shahria, Hersh Shrivastava

Project Details:

Demo 2: December 11, 2019

Project Webpages:

Front-End:

Branch: final-demo in:

https://github.com/AkashWorld/blockchain-frontend

Back-End:

Branch: final-demo in:

https://github.com/AkashWorld/smart-contract-backend

HEALTH ANALYTICS ENGINE

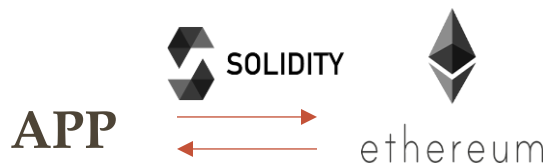## SOFTWARE ENGNEERING GROUP 5

Instructor: Dr Ivan Marsic

Features:

GraphQL **API** manager used for greater efficiency and stability during interactions between user and server. Used to interact with Express application containing business logic.

Express Server contains GraphQL endpoint to receive request from clients. Contains main business logic, including retrieving data from Ethereum Blockchain Database and performing operations as per client requests.
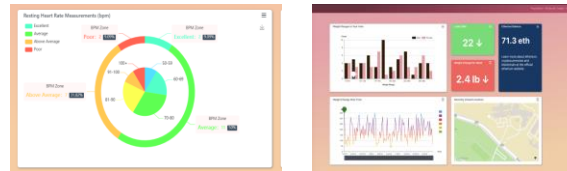
Smart Contracts used to interact with Ethereum Blockchain. Smart Contracts: code that has specific purpose of retrieving data from blockchain and performing operation on data. Smart Contracts written in Solidity programming language.

APP

Beautiful and Interactive UI

ReactJS and **Apache E-Charts** used to create intuitive client user interface.

User statistics displays including bar graph, pie charts, line graphs. User location and non-graphical data displayed as well.

User data entry forms:

Users have simple entry forms with which to insert their data
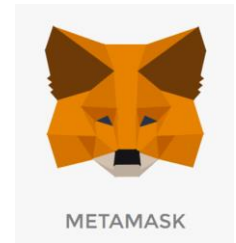
User Login:

Users will only require a few buttons click for login!

*Also showing MetaMask instance in app (Signature request)

MetaMask:

Ethereum wallet service that keeps track of user private key and account id. Allows user to sign up easier and login with only a button click!

Web Crawler

Using Google, and variation in user data obtained from entries, web results displayed for possible user concerns regarding lifestyle.

Display of Suggestion for User based on their data. Sites listed based on user need as determined from data entered.