

**The Mecha Matrix**

# Saarthi A Digital Caretaker

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# Problem Statement

- Track: Health
- Statement: The increase in patients has led to a decrease in the relative number of doctors per patient which results in a vicious cycle where ignored or delayed diagnostics of an ailment makes the patient more dependent of doctor's check-up. Some also cannot afford a doctor.

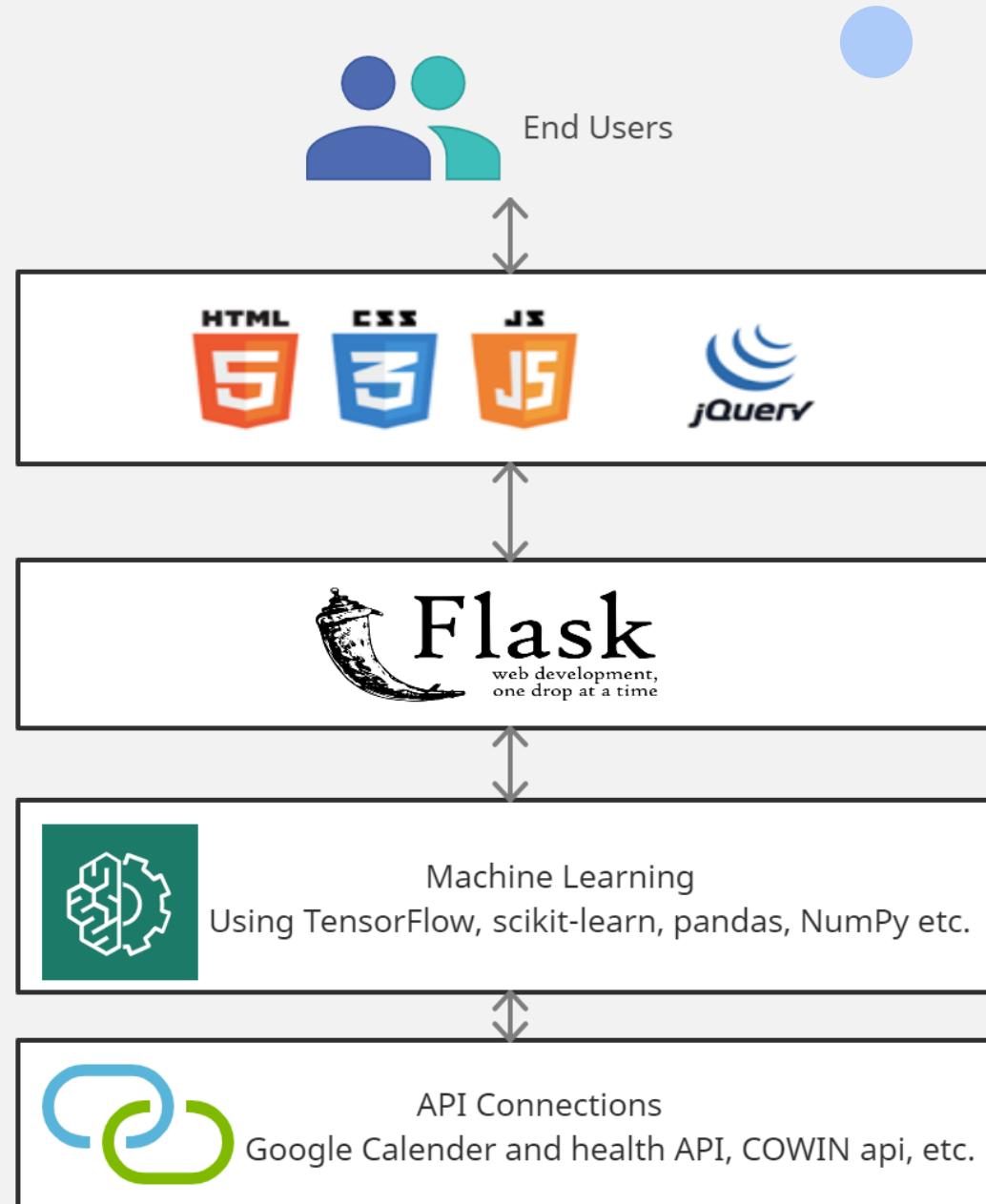


# Idea

- We aim to provide a platform to an individual to minimize his/her unnecessary interactions with the doctor. We intend to make this platform such that it understands the ailment of the patient and based on the severity recommend whether or not he/she needs to see a doctor. Further, we will provide disease detection for with the help of Machine Learning in order to increase the efficiency of diagnostic process. Further we also provide sections to improve the well-being of an individual.



# Idea





# Introduction

## Dashboard

The dashboard shows the vital information in a summarized manner. The google calendar integrated lets you sync all your appointments and prescriptions directly. Further in there the upcoming events that might be organized by a hospital and we allow to accepting these invitations.

## Detectors

Saves hours of mind numbing diagnosis of diseases. Uses ML models along with Computer Vision to predict the severity of the condition.

## Well Being

Allows the user to analyse the problems/symptoms of any pain or problem he/she is facing and further recommends the need to visit a doctor. Includes sections to improve overall well-being.

## Health

Takes the role of a dietician, Analysis of user's health habits and nutrition suggestion to improve them



# Dashboard

Quickly bringing the user up to speed regard what's about to happen



## APIs IMPORTS

Saarthi has been designed keeping in that most of its features should be **integrable with APIs from other applications**



Saarthi dashboard has a working implementation of **Google Calendar API** that lets one view their entire calendar as well as add events.

### Calendar View

The google calendar integrated lets you sync all your appointments and prescriptions directly

### Event Manager

Get a list of all event (hospital or community) that you can participate in, on accepting add the invitation directly to your calendar

# Diagnosis

## Images of Affected Part

Includes X-rays of Lungs and images of teeth etc



## Machine Learning

Keras Models predict the severity of the condition.



## Predictions

Obtain Predictions like Cavity, Staining areas in teeth, lung pneumonia condition etc.

## Computer Vision

After some computations on the image of the affected part the image is categorized whether it has issues like cavity, pneumonia or not.

Machine Learning

Data Analysis

Suggestion



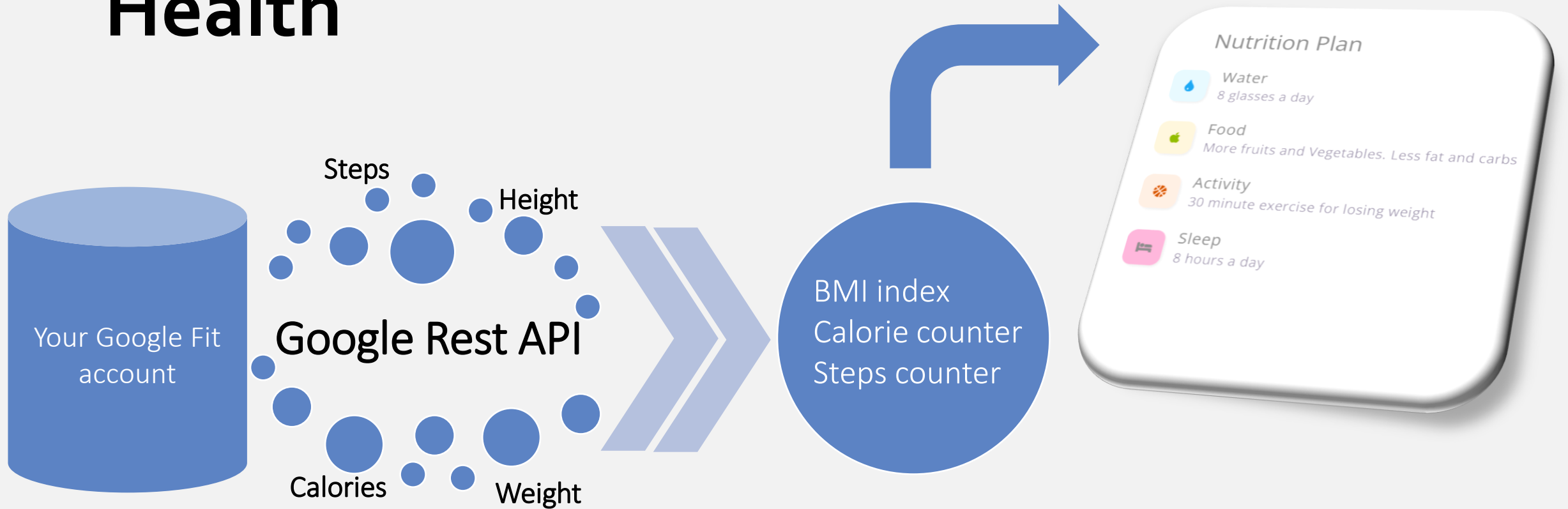
## Suggestions

Based on the prediction we suggest the need to go to the doctor and some home remedies

## Analysis & Suggestions

Obtain Analysis of the images of the affected parts and provide suggestions for further steps which need to be taken.

# Health



A Nutrition Plan created just for you



Saarthi is made keeping in mind it should be able to extend to Include more APIs very easily.



# Well-Being



## Body Pain Helper

We allow the user to choose from a body diagram where they are feeling pain and give suggestions for relief. Further it informs you when it is necessary to consult a doctor for such a pain.



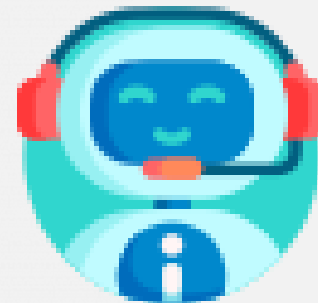
## Physical Therapy

You can choose several body parts and get a routine for physical therapy involving only those specific muscles

# Your own Digi-Bot



DigiBot is a solution integrated with Saarthi that acts as user's companion and offers help in early diagnosis of heart-related problems by analysing the heart health of a patient based on a questionnaire.



Hi, I am DigiBot. I'll help you analyse how healthy your heart is.

# Conclusion

The only requirement for adapting the project to use is to replace all fictional data with actual data and after that you are good to go...

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