AUTOMATIC HEALTH TRACKER & FITNESS TRAINER

Ankur Bhatt B10042
Amit Gore B10013
Lalit Sahota B10061
Aman Agrawal B10003
Ashish Singh B10007

The Exercise Coach
20 Minutes that Matter
Exploring the application and Problem Domain

• Many university students and faculty are preoccupied with learning and research and tend to develop the habit of too little exercise.
• The application helps such ‘workaholics’ to develop a healthier lifestyle.
PROBLEM DOMAIN

- Sometimes people have to spend a lot of money for referring to a doctor for very minute problems like hamstring Pull or cramps etc.
- People even spend a lot of money for advice on their daily diet.

This application can be a very big boon to such people.
EXPLORING THE APP

• The application is based on a mobile data-gathering client e.g. an app on a mobile phone, a data analysis part, and one or several feedback and interaction clients.
The system might also use information based on regularity for recommendation: “Why don’t you walk home instead of taking the bus?”
WORKING OF THE APP.!!

- It starts with facilitating user with his/her individual accounts which stores their basic bio data like height, weight, age etc on the application database.
Daily fitness routines are suggested by the application to its users by referring its database to enhance an individual’s physical and mental health.

Primary medical prescriptions can also be given to the user if he/she enters some common disease symptoms E.g. Cold or cough etc.
Normal daily use supplements will also be recommended by the app.

Video links and Pictures are also provided to the user for the better understanding of exercises.
Mobile exercise coach concerns about the software which can be loaded into the automaton like mobile phone or other particular machine equipped with sensors. The software can be installed on any operating system. The data collected is data about movement that can be used to guide the client about exercise and the goals.
The app lets the user to log their workouts on their phone/device, set up a workout schedule, download new exercise programs that will work for them, and even challenge friends to meet their fitness goals.
Usability Issues

- As the mobile device can communicate with other measuring devices we should have GPS support for those who run or walk, a communication to pedometer, and a calorie counter to help you estimate how many calories client have burned so far.
Usability Issues

- There are many existing devices which can direct our moves (in exercise) with the help of sensors.
- Sensors complicate the data communication with application.
- Swimming and yoga..?
- Watching new poses and exercises that user may not already know, and to keep track of the exercises user have already done.
- Each exercise should be accompanied by animations, voice tutorials and guides.
The problem domain which may interrupt the working can be the communication between devices and GPS support in remote areas.
Prototype

Exercise Coach

Exercise task of the day

Health tip of the day

Don’t combine fat and starch
It’s o.k to eat sauce, but be careful to eat potatoes, rice or other products containing starch. Starch is what binds the fat to the body.

Count my calories

GO TO VIDEO
GPS supporting Prototype:

- Application provides daily milestones according to the schedule provided.
- And also shows up the remaining checkpoints you have to secure.
After the run, it will show the amount of calories user have consumed!

- We are not going to use any sensors for measuring the burnt calories/heart beats. Its only the database which facilitates it.
- So this approach makes our application not so complicated and highly scalable, portable too 😊
**Gorilla Workout:**

- This is a popular, simple android app. available in current market
- But it has many usability issues for example:

  1. exercises are recommended via the 4 levels provided
  2. Equipped with not enough intelligence, so little uncomfortable for user.
  3. It is meant only as an exercise trainer, provides no medical prescription or diet recommendations

Already existing software in the market
• Consumes considerable amount of battery power.
• Application need internet access for its proper function, hence won’t work properly in remote areas.
• Portability across platforms. Presently featuring only smartphones.
• Limitations on adding advanced exercises due to limitation on memory size.
• Smaller screen size of the smartphone limits its effective usage.

Usability Issues raised via interview
Solutions

- Using a high power battery or closing the irrelevant processes while using our app.
- Access a network which is available through remote areas. And if not possible, update the software regularly in 15 days.
- We are working on making it compatible across all platforms.
• We are working on compressing the database size by efficient mapping functions. Also the database is stored in external memory, so the user can expand the memory size easily.
• We are working on adding a projector function to our app which will project the display onto a large screen with good resolution